

Liquid Assayed Multiquel® 1, 2, 3

REF	694	Level 1	12 x 3 mL
	695	Level 2	12 x 3 mL
	696	Level 3	12 x 3 mL
	695X	Trilevel MiniPak	3 x 3 mL



EXP 2014-02-28



45630

Level 1	45631
Level 2	45632
Level 3	45633

ENGLISH

INTENDED USE

Liquid Assayed Multiquel is intended for use as an assayed quality control serum to monitor the precision of laboratory testing procedures for the analytes listed in this package insert.

SUMMARY AND PRINCIPLE

The use of quality control materials is indicated as an objective assessment of the precision of methods and techniques in use and is an integral part of good laboratory practices. Three levels of control are available to allow performance monitoring within the clinical range.

REAGENT

This product is prepared from human serum to which purified biochemical material (tissue extracts of human and animal origin), chemicals, drugs, preservatives and stabilizers have been added. The control is provided in liquid form for convenience.

STORAGE AND STABILITY

This product will be stable until the expiration date when stored unopened at -20°C to -70°C. For optimum performance, avoid storage in a frost-free freezer. Store vials away from the light.

Thawed and Unopened: When the control material is thawed and stored unopened at 2 to 8°C, all analytes will be stable for 30 days with the following exceptions: Direct Bilirubin will be stable for 11 days, Triglycerides, HDL, Cholinesterase, and Phosphorus will be stable for 7 days. Total Bilirubin and Direct Bilirubin values may decrease, Alkaline Phosphatase activity may rise. The control must be stored frozen when using AST methods without pyridoxal-5-phosphate.

Thawed and Opened: Once the control material is thawed and opened, all analytes will be stable for 14 days when stored tightly capped at 2 to 8°C, with the following exceptions: Direct Bilirubin, Triglycerides, HDL, **Cholinesterase**, and Phosphorus will be stable for 7 days. LAP Arylamidase will be stable for 3 days. **PAP** should be assayed immediately.

Frozen Aliquot: AST/SGOT, Direct Bilirubin, HDL, Phosphorus, LDL, Triglycerides, and LAP Arylamidase will be stable for 14 days when stored in tightly capped aliquot **amber** vials at -20 to -70°C. Discard the remaining material after each use.

This product is shipped under frozen conditions.

PROCEDURE

This product should be treated the same as patient specimens and run in accordance with the instructions accompanying the instrument, kit, or reagent being used.

Allow the control to stand at room temperature (18 to 25°C) for 1 hour or until completely thawed. A precipitate may be present that dissolves upon mixing. Before sampling, gently swirl the contents until homogeneous with no visible signs of a precipitate. If performing trace metal analysis, do not mix by inversion. Promptly replace the stopper and return to 2 to 8°C storage after each use.

Dispose of any discarded materials in accordance with the requirements of your local waste management authorities. In the event of damage to packaging, contact the local Bio-Rad Laboratories Sales Office or Bio-Rad Laboratories Technical Services.

LIMITATIONS

1. This product should not be used past the expiration date.
2. If there is evidence of microbial contamination or excessive turbidity in the product, discard the vial.
3. Direct Bilirubin, **Neonatal Bilirubin**, Alanine Aminotransferase (ALT/SGPT), **Cholinesterase** and **Tobramycin** levels may gradually decrease during the product shelf life.
4. This product is not intended for use as a standard.
5. Methods subject to interference by ascorbic acid may exhibit suppressed uric acid recovery.

ASSIGNMENT OF VALUES

The mean values printed in this insert were derived from replicate analyses and are specific for this lot of product. The tests listed were performed by the manufacturer and/or independent laboratories using manufacturer supported reagents and a representative sampling of this lot of control. Individual laboratory means should fall within the corresponding acceptable range; however, laboratory means may vary from the listed values during the life of this control. Variations over time and between laboratories may be caused by differences in laboratory technique, instrumentation and reagents, or by manufacturer test method modifications. It is recommended that each laboratory establish its own means and acceptable ranges and use those provided only as guides.

Refer to www.qcnet.com for insert update information.

SPECIFIC PERFORMANCE CHARACTERISTICS

This product is a stabilized liquid product manufactured under rigid quality control standards. To obtain consistent vial-to-vial assay values, the control requires proper storage and handling as described.

Optional Supplies:

Item No. 987000 – Dispenser Tips for Screw Caps (100/package)

Significant changes are highlighted!

DEUTSCH

VORGESEHENER VERWENDUNGSZWECK

Die Liquid Assayed Multiquel dient als Qualitätskontrollserum für die quantitative Bestimmung der in dieser Packungsbeilage angegebenen Analyte, mit Zielwertangaben.

EINLEITUNG UND ZUSAMMENFASSUNG

Die Verwendung entsprechender Kontrollmaterialien dient der objektiven Beurteilung der Qualität von im Labor durchgeführten Untersuchungen und ist ein unerlässlicher Bestandteil der guten Laborpraxis. Die drei Level dieser Kontrolle ermöglichen eine umfassende Qualitätssicherung im gesamten klinisch relevanten Bereich.

REAGENZ

Dieses Produkt wurde aus Humanserum hergestellt und enthält Zusätze von gereinigten, biochemischen Materialien (Gewebeextrakte menschlichen und tierischen Ursprungs), Chemikalien, Medikamenten, Konservierungsmitteln und Stabilisatoren. Die Kontrolle ist gebrauchsfertig, flüssig und dadurch sehr einfach in der Anwendung.

LAGERUNG UND HALTBARKEIT

Dieses Produkt ist bis zum angegebenen Haltbarkeitsdatum stabil, wenn es ungeöffnet bei -20 bis -70°C gelagert wird. Um die optimale Leistungsfähigkeit des Produkts zu erhalten, sollte die Lagerung nicht in einem selbstabtauenden Gefrierschrank erfolgen. Die Fläschchen möglichst lichtgeschützt aufbewahren.

Aufgetaut und ungeöffnet: Wenn das aufgetaute Kontrollmaterial ungeöffnet bei 2–8 °C gelagert wird, sind alle Analyte 30 Tage stabil. Ausnahmen: Bilirubin, direkt, ist 11 Tage stabil, Triglyceride, HDL, Cholinesterase, und Phosphor sind 7 Tage stabil. Die Werte für Bilirubin, gesamt, und Bilirubin, direkt, können abfallen und die Aktivität der Alkalischen Phosphatase kann ansteigen. Werden zur Bestimmung der AST Methoden ohne Pyridoxal-5-Phosphat angewendet, muss die Kontrolle eingefroren gelagert werden.

Aufgetaut und geöffnet: Wenn das Kontrollmaterial aufgetaut und geöffnet ist, sind alle Analyte 14 Tage stabil, sofern das Material dicht verschlossen bei 2–8 °C aufbewahrt wird. Ausnahmen: Bilirubin, direkt, Triglyceride, HDL, **Cholinesterase**, und Phosphor sind 7 Tage stabil. LAP-Arylamidase ist 3 Tage stabil. **PAP** sollte sofort bestimmt werden.

Eingefrorenes Aliquot: AST/SGOT, Bilirubin, direkt, HDL, Phosphor, LDL, Triglyceride und LAP-Arylamidase sind 14 Tage stabil, sofern die Kontrolle aliquotiert wird und die Aliquots bei -20 °C bis -70 °C in **bernsteinfarbenen** Fläschchen gelagert werden. Nach jedem Gebrauch ist das restliche Material zu verwerfen.

Dieses Produkt wird tiefgefroren versendet.

HANDHABUNG

Das Produkt ist genau wie eine Patientenprobe zu behandeln und in Übereinstimmung mit den Vorschriften des Geräte-, Kit- oder Reagenzherstellers anzuwenden.

Die tiefgefrorene Kontrolle vor Gebrauch für mindestens 1 Stunde oder bis zum vollständigen Auftauen bei Raumtemperatur (18 bis 25°C) stehen lassen. Ein mögliches Präzipitat löst sich nach dem Durchmischen wieder auf. Den Inhalt des Fläschchens vor der Probenahme durchmischen, um die Homogenität zu gewährleisten und einen möglichen Niederschlag vollständig aufzulösen. Um die Homogenität sicherzustellen, vor Entnahme einer Probe nochmals vorsichtig durchmischen. Nach jedem Gebrauch sofort wieder mit dem Stopfen verschließen bei 2 bis 8°C aufbewahren.

Die Entsorgung aller Abfälle ist nach den geltenden lokalen Abfallsbestimmungen vorzunehmen. Falls die Verpackung beschädigt ist, nehmen Sie Kontakt zur Bio-Rad Niederlassung auf.

EINSCHRÄNKUNGEN

1. Dieses Produkt nach Ablauf des Haltbarkeitsdatums nicht mehr verwenden.
2. Bei Anzeichen einer mikrobiellen Kontamination oder einer starken Trübung des Produkts ist das Fläschchen zu verwerfen.
3. Die Konzentration von Direkt Bilirubin, **Neonatal Bilirubin**, Alanin-Aminotransferase (ALT/SGPT), **Cholinesterase** und **Tobramycin** kann während der Lebensdauer des Produkts allmählich abnehmen.
4. Dieses Produkt ist nicht zur Verwendung als Standard geeignet.
5. Methoden, die durch Ascorbinsäure gestört werden können, führen möglicherweise zu einer reduzierten Harnsäure-Wiederfindung.

WERTEERMITTLUNG

Die in dieser Packungsbeilage angegebenen Mittelwerte stammen aus Vielfachbestimmungen und gelten speziell für diese Produktcharge. Die Bestimmungen wurden vom Hersteller und/oder von unabhängigen Laboratorien mit vom Hersteller unterstützten Reagenzien durchgeführt; dazu wurde eine repräsentative Stichprobe dieser Produktcharge eingesetzt. Die im Labor erzielten Werte sollten im entsprechenden Akzeptanzbereich liegen; die tatsächlich erzielten Werte können jedoch während der Lebensdauer dieser Kontrolle von den angegebenen Zielwerten abweichen. Abweichungen im Laufe der Zeit und zwischen verschiedenen Laboratorien sind möglicherweise auf unterschiedliche Labortechniken, Geräte und Reagenzien oder auf Modifikationen der vom Hersteller angegebenen Testmethoden zurückzuführen. Jedem Labor wird empfohlen, eigene Mittelwerte und Akzeptanzbereiche zu ermitteln und die aufgeführten Werte nur als Richtwerte zu betrachten. Aktualisierte Zielwerttabellen finden Sie im Internet unter www.qcnet.com/de.

SPEZIFISCHE EIGENSCHAFTEN

Dieses Produkt ist ein stabilisiertes, flüssiges Produkt und wurde unter strengen Qualitätsstandards hergestellt. Um reproduzierbare Ergebnisse von Fläschchen zu Fläschchen sicherzustellen, muss die Kontrolle sachgerecht gelagert und wie angegeben gehandhabt werden.

Optionale Ausstattung:

Artikel-Nr. 987000 – Tropfaufsätze für Schraubverschlussfläschchen (100/Paket)

Wichtige Änderungen sind farblich hervorgehoben!



Catalog Number
Katalognummer
Número de catálogo
Numero di catalogo
Número de catálogo
Katalognummer
Katalognr.



European Conformity
CE-Konformitätskennzeichnung
Conformité aux normes européennes
Conformità europea
Conformidad europea
Conformidade com as normas europeias
Europeisk översensstemmelse
Europeisk översensstemmelse



In Vitro Diagnostic Medical Device
Medizinprodukt für die In-vitro-Diagnostik
Appareil médical de diagnostic in vitro
Dispositivo diagnóstico in vitro
Dispositivo médico para diagnóstico in vitro
Dispositivo médico de diagnóstico in vitro
Medicinteknisk produkt för in vitro-diagnostik
In vitro diagnostisk medicinsk utrustning



Use by (YYYY-MM-DD)
Verwendbar bis (JJJJ-MM-TT)
Date de péremption (AAAA-MM-JJ)
Data di scadenza (AAAA-MM-GG)
Usar hasta el (AAAA-MM-GG)
Utilizar até (AAAA-MM-DD)
Använd före (AAAA-MM-DD)
Anvend før (AAAA-MM-DD)



Lot Number
Chargen-Nr.
Número de lot
Numero di lotto
Número de lote
Satsnummer
Batchnummer



Consult Instructions for Use
Achtung, Gebrauchsanweisung beachten
Consulter la notice d'emploi
Consultare le istruzioni per l'uso
Consulte las instrucciones de uso
Consulte as instruções de utilização
Läs bruksanvisningen
Benyt brugsanvisninger



Caution, Consult Accompanying Documents
Achtung, Gebrauchsanweisung beachten
Attention, consulter les documents joints
Attenzione, consultare la documentazione allegata
Advertencia, consulte los documentos incluidos
Atenção, consulte a documentação fornecida
OBS! Se medföljande dokument
NBI Se medföljande dokumenter



Temperature Limitation
Temperaturbeschränkung
Limite de température
Limite di temperatura
Limitación de temperatura
Limites de temperatura
Temperaturbegränsning
Temperaturbegränsning



Manufacturer
Hersteller
Fabricant
Produttore
Fabricante
Fabricante
Tillverkare
Producent



Authorized Representative
Bevollmächtigter
Representant agréé
Rappresentante autorizzato
Representante autorizado
Representante autorizado
Auktoriseret representant
Autoriseret representant

FRANÇAIS

UTILISATION

Liquid Assayed Multiquel est un sérum titré de contrôle de la qualité permettant de surveiller la précision des tests réalisés en laboratoire pour les analyses dont la liste figure sur cette notice.

INTRODUCTION ET PRINCIPE

L'utilisation de produits de contrôle de la qualité est indiquée pour évaluer de façon objective la précision des méthodes et des techniques utilisées, et fait partie intégrante des bonnes pratiques de laboratoire. Trois concentrations sont disponibles afin de permettre un contrôle de la qualité sur l'ensemble de la plage de valeurs cliniques.

RÉACTIF

Ce produit est préparé à partir de sérum humain auquel ont été ajoutés du matériel biochimique purifié (extraits de tissus d'origines humaine et animale), des produits chimiques, des médicaments, des agents conservateurs et des stabilisants. Le contrôle est fourni sous forme liquide pour un emploi plus aisé.

CONSERVATION ET STABILITÉ

Ce produit restera stable jusqu'à la date de péremption en flacon non ouvert et conservé entre -20 et -70°C. Pour une performance optimale, éviter de conserver le contrôle dans un congélateur à dégivrage automatique. Conserver les flacons à l'abri de la lumière.

Décongelé et non ouvert : Lorsque le contrôle est décongelé et conservé non ouvert entre 2 et 8°C, tous les analytes resteront stables pendant 30 jours, à l'exception des analytes suivants : La bilirubine directe sera stable pendant 11 jours, tandis que les triglycérides, le cholestérol HDL, Cholinestérase, et le phosphore seront stables pendant 7 jours. Les valeurs de la bilirubine totale et de la bilirubine directe peuvent diminuer tandis que l'activité de la phosphatase alcaline peut augmenter. Le contrôle doit être conservé congelé lorsque des méthodes AST sont utilisées sans pyridoxal-5-phosphate.

Décongelé et ouvert : Une fois le contrôle décongelé et ouvert, tous les analytes resteront stables pendant 14 jours en flacon convenablement fermé et conservé entre 2 et 8°C. Exceptions : la bilirubine directe, les triglycérides, le cholestérol HDL, Cholinestérase, et le phosphore seront stables pendant 7 jours. L'arylamidase LAP sera stable pendant 3 jours. **PAP** doit être analysée immédiatement.

Aliquot congelé : L'aspartate aminotransférase (AST/SGOT), la bilirubine directe, le cholestérol HDL, le phosphore, le cholestérol LDL, les triglycérides et l'arylamidase LAP seront stables pendant 14 jours en flacons d'aliqots **ambre** convenablement fermés et conservés entre -20 et -70°C. Éliminer le produit restant après utilisation.

Ce produit est expédié congelé.

MODE OPÉRATOIRE

Ce produit doit être traité comme les échantillons de patients, en respectant les instructions accompagnant l'appareil, le kit ou le réactif utilisés. Avant utilisation, amener le contrôle à la température ambiante (18 à 25°C) pendant une heure ou jusqu'à décongélation complète. Un précipité peut apparaître, mais il se dissout sous l'effet d'une agitation. Avant utilisation, homogénéiser en imprimant un léger mouvement de rotation au flacon jusqu'à disparition de tout signe de précipité. Ne pas mélanger par retournement si une analyse de trace métallique doit être effectuée. Après chaque utilisation, remettre rapidement le bouchon et conserver entre 2 et 8°C.

Tout déchet doit être éliminé conformément aux réglementations en vigueur dans le laboratoire pour le traitement des déchets. Si le conditionnement est endommagé, contacter votre service technique Bio-Rad local.

LIMITES

- Ne pas utiliser ce produit après la date de péremption.
- En cas de contamination microbienne ou de trouble excessif, éliminer le flacon.
- Les concentrations de bilirubine directe, **néonatale bilirubine**, d'alanine aminotransférase (ALT/SGPT), **Cholinestérase** et **tobramycine** peuvent diminuer progressivement pendant la durée de vie du produit.
- Ce produit n'est pas conçu pour être utilisé comme étalon.
- Les méthodes dans lesquelles l'acide ascorbique risque d'interférer peuvent indiquer un taux d'acide urique faussement bas.

DÉTERMINATION DES VALEURS

Les valeurs moyennes indiquées sur cette notice ont été déterminées à partir d'analyses répétées et concernent spécifiquement ce lot de produit. Les essais indiqués ont été réalisés par le fabricant et/ou par des laboratoires indépendants à l'aide de réactifs acceptés par le fabricant et sur un échantillonnage représentatif de ce lot de contrôle. Les moyennes obtenues par un laboratoire donné doivent se trouver dans la plage de valeurs acceptables correspondante ; cependant, les moyennes obtenues par le laboratoire peuvent varier par rapport aux valeurs indiquées pendant la durée de vie de ce contrôle. Les variations dans le temps et entre laboratoires peuvent être dues à des différences de méthodes, d'appareils et de réactifs employés par chaque laboratoire ou à des modifications de la méthode d'analyse employée par le fabricant. Il est recommandé à chaque laboratoire d'établir ses propres moyennes et plages de valeurs acceptables et de n'utiliser les valeurs fournies qu'à titre indicatif.

Consulter le site www.qcnet.com pour obtenir une mise à jour de la notice.

CARACTÉRISTIQUES

Ce produit est un liquide stabilisé fabriqué selon des normes rigoureuses de contrôle de la qualité. Pour obtenir des résultats reproductibles d'un flacon à l'autre, le contrôle doit être convenablement conservé et manipulé, tel que décrit dans cette notice.

Fournitures en option:

Article n° 987000 – Bouchons compte-gouttes (100/paquet)

 **Les changements importants sont mis en évidence!**

ITALIANO

USO PREVISTO

Liquid Assayed Multiquel è un siero di controllo qualità saggiato e formulato per monitorare la precisione delle procedure di analisi di laboratorio per gli analiti elencati nel presente inserto.

SOMMARIO E PRINCIPIO

L'uso dei materiali di controllo della qualità è indicato come valutazione oggettiva della precisione dei metodi e delle tecniche in uso e costituisce parte integrante delle buone pratiche di laboratorio. Per permettere di controllare le prestazioni nell'ambito di tutto l'intervallo clinico sono disponibili tre livelli di controllo.

REATTIVO

Questo prodotto è stato preparato utilizzando siero umano con l'aggiunta di materiale biochimico purificato (estratti di tessuto di origine umana e animale), sostanze chimiche, farmaci, conservanti e stabilizzanti. Il controllo viene fornito in forma liquida per una maggiore praticità.

CONSERVAZIONE E STABILITÀ

Questo prodotto è stabile fino alla data di scadenza quando viene conservato, non aperto, a -20 / -70°C. Per garantire delle prestazioni ottimali, evitare di conservare il prodotto in congelatori privi di brina. Conservare i flaconi al riparo dalla luce.

Scongelo e non aperto : Una volta che il materiale di controllo viene scongelato e conservato, non aperto, a 2-8 °C, tutti gli analiti sono stabili per 30 giorni con le seguenti eccezioni: la bilirubina diretta è stabile per 11 giorni, mentre trigliceridi, HDL, Colinesterasi, e fosforo sono stabili per 7 giorni. I valori di bilirubina totale e bilirubina diretta potrebbero diminuire, mentre l'attività della fosfatasi alcalina potrebbe aumentare. Se si impiegano metodiche per AST senza piridossal-5-fosfato, il controllo va conservato congelato.

Scongelo e aperto : Una volta che il materiale di controllo è scongelato e aperto, tutti gli analiti sono stabili per 14 giorni se il prodotto viene conservato ben chiuso a 2-8 °C, con le seguenti eccezioni: bilirubina diretta, trigliceridi, HDL, **Colinesterasi**, e fosforo sono stabili per 7 giorni. La leucina arilamidasi (LAP) è stabile per 3 giorni. La **PAP** va dosata immediatamente.

Aliquota congelata : AST/SGOT, bilirubina diretta, HDL, fosforo, LDL, trigliceridi e arilamidasi LAP sono stabili per 14 giorni purché conservati aliquotati in flaconi ben chiusi **color ambra** a temperature comprese fra -20 e -70 °C. Dopo ogni uso, eliminare il materiale residuo.

Il prodotto viene spedito congelato.

PROCEDURA

Questo prodotto deve essere trattato allo stesso modo dei campioni in esame ed usato secondo le istruzioni che accompagnano lo strumento, il kit o il reattivo in uso.

Lasciare il controllo a temperatura ambiente (18-25°C) per 1 ora o fino a quando è completamente scongelato. La presenza di eventuale precipitato potrà essere dissolta miscelando il prodotto. Prima dell'uso, agitare delicatamente per assicurare l'omogeneità del contenuto e fino alla scomparsa di segni visibili di precipitato. Non mescolare per inversione nelle analisi dei metalli in traccia. Richiudere immediatamente il flacone dopo ogni uso e riparlo nel luogo di conservazione a 2-8°C.

Eliminare eventuali materiali residui nel rispetto delle norme locali sullo smaltimento dei rifiuti. Nel caso di danni alla confezione, contattare gli uffici Bio-Rad o l'agente di zona.

LIMITI

- Questo prodotto non deve essere usato dopo la data di scadenza.
- In caso di evidente contaminazione microbica o di una eccessiva torbidità, eliminare il flacone.
- I livelli di bilirubina diretta, **bilirubina neonatale**, alanina aminotrasferasi (ALT/SGPT), **Colinesterasi** e **tobramicina** potrebbero diminuire gradualmente durante il periodo di validità del prodotto.
- Questo prodotto non è concepito per l'uso come standard.
- I metodi con i quali l'acido ascorbico interferisce potrebbero non rilevare l'intero quantitativo di acido urico presente nel campione.

ASSEGNAZIONE DEI VALORI

I valori medi riportati in questo inserto sono il risultato di analisi in replicato e sono specifici per questo lotto di prodotto. Le analisi elencate sono state effettuate dal produttore e/o da laboratori indipendenti utilizzando reagenti forniti dal produttore ed una campionario rappresentativa di questo lotto di controllo. Le medie di ciascun laboratorio dovrebbero rientrare nel corrispondente intervallo di accettabilità; tuttavia i valori medi del laboratorio possono variare rispetto a quelli dichiarati per il periodo di validità del presente controllo. Le variazioni nel tempo e tra laboratori possono essere causate da differenze nelle metodologie, nelle strumentazioni o nei reagenti di ogni laboratorio, o da modifiche metodologiche dei produttori. Ogni laboratorio deve stabilire le proprie medie e i relativi intervalli di accettabilità ed utilizzare i valori pubblicati sull'inserto solo come guida.

Consultare il sito www.qcnet.it per informazioni sull'aggiornamento dell'inserto.

CARATTERISTICHE

Questo è un prodotto liquido, stabilizzato sotto un rigido controllo standard di qualità. Per ottenere una consistente uniformità di risultati da flacone a flacone, si raccomanda una corretta conservazione ed un corretto uso, come descritto.

Prodotti opzionali:

Articolo n. 987000 – Fiale squeeze (100/confezione)

 **Le modifiche importanti sono evidenziate!**

ESPAÑOL

USO INTENCIONADO

Liquid Assayed Multiquel tiene un uso intencionado como suero valorado para el control de la calidad y con el fin de supervisar la precisión de los procedimientos de análisis del laboratorio y para los análisis que se enumeran en este prospecto.

INTRODUCCIÓN Y PRINCIPIO

El uso de materiales para el control de la calidad está indicado para la evaluación objetiva de la precisión de los métodos y las técnicas en uso, y forma parte integral de las buenas prácticas del laboratorio. Existen tres niveles de control para permitir supervisar el funcionamiento dentro del rango clínico.

REACTIVOS

Este producto está preparado a partir de suero humano al que se añaden material bioquímico purificado (extractos tisulares de origen humano y animal), productos químicos, drogas, así como conservantes y estabilizadores. El control se suministra líquido para mayor comodidad.

CONSERVACIÓN Y ESTABILIDAD

Este producto permanecerá estable hasta la fecha de caducidad, siempre que esté almacenado sin abrir a una temperatura entre -20 y -70°C. Para obtener los mejores resultados, evitese su almacenamiento en un congelador sin escarcha. Los viales deben almacenarse lejos de la luz.

Descongelado y sin abrir: Cuando el producto se descongela y se almacena sin abrir a una temperatura entre 2 y 8°C, todos los analitos permanecerán estables durante 30 días, con las siguientes excepciones: Bilirrubina Directa permanecerá estable durante 11 días, Triglicéridos, HDL, Colinesterasa, y Fósforo permanecerán estables durante 7 días. Los valores de Bilirrubina Total y Bilirrubina Directa pueden disminuir; la actividad de la Fosfatasa Alcalina puede aumentar. El control debe almacenarse congelado si se utilizan métodos para AST sin piridoxal-5-fosfato.

Descongelado y abierto: Una vez que el material de control es descongelado y abierto, si se almacena bien tapado entre 2 y 8°C, todos los analitos permanecerán estables durante 14 días, excepto: Bilirrubina Directa, Triglicéridos, HDL, **Colinesterasa**, y Fósforo permanecerán estables durante 7 días. LAP-Arilamidasa permanecerá estable durante 3 días. **PAP** debe ser valorada inmediatamente.

Aliquota congelada: AST/SGOT, Bilirrubina Directa, HDL, Fósforo, LDL, Triglicéridos y LAP Arilamidasa permanecerán estables durante 14 días siempre que se almacene el control en viales de alícuotas **color ámbar** bien tapados a una temperatura entre -20 y -70°C. Deseche el material sobrante después de cada uso.

Este producto se transporta congelado.

PROCEDIMIENTO

Este producto debe tratarse de la misma forma que las muestras de pacientes y debe ser ensayado conforme a las instrucciones incluidas con el instrumento, kit o reactivos utilizados.

Deje el control a temperatura ambiente (de 18 a 25°C) durante 1 hora o hasta que se descongele totalmente. Es posible que presente algo de precipitado, que se disolverá al mezclarlo. Antes del muestreo, gire el vial en círculos con suavidad hasta que esté homogéneo y sin signos visibles de precipitado. Si está realizando un análisis para la detección de metales traza, no lo invierta para mezclarlo. Tras cada uso, tápelo inmediatamente y consérvelo de nuevo a una temperatura de 2 a 8°C.

Elimine todo material desechable de acuerdo con las normativas locales vigentes sobre la gestión de residuos. En el caso de que el envoltorio haya sufrido daños, póngase en contacto con la oficina de ventas o con el Servicio técnico local de Bio-Rad.

LIMITACIONES

- Este producto no debe utilizarse después de la fecha de caducidad.
- Si hubiese indicios de contaminación microbiana o exceso de turbidez en el producto, deseche el vial.
- Los niveles de Directa Bilirrubina, **Neonatal Bilirrubina**, Alanina Aminotransferasa (ALT/SGPT), **Colinesterasa** y **Tobramicina** pueden disminuir gradualmente durante la vida de almacenamiento del producto.
- Este producto no está previsto para ser utilizado como estándar.
- Los métodos sujetos a interferencia del ácido ascórbico pueden mostrar supresión de la recuperación del ácido úrico.

ASIGNACIÓN DE VALORES

Los valores medios que figuran en este prospecto se obtuvieron a partir de la replicación de análisis y son específicos de este lote del producto. Las pruebas fueron realizadas por el fabricante o por laboratorios independientes que utilizaron reactivos admitidos por el fabricante y una muestra representativa de este lote de control. Las medias de cada laboratorio deben estar comprendidas en el correspondiente rango aceptable, pero pueden apartarse de los valores indicados mientras dure este control. Las variaciones a lo largo del tiempo y entre laboratorios pueden deberse a diferencias en las técnicas del laboratorio, su instrumental y sus reactivos, o a modificaciones introducidas en el método de medida del fabricante. Se recomienda que cada laboratorio establezca sus propias medias y rangos aceptables y utilicen los que aquí se proporcionan sólo como orientación.

Puede consultar las actualizaciones de prospectos en la página web www.qcnet.com.

CARACTERÍSTICAS ESPECÍFICAS DEL PREPARADO

Este es un producto líquido estabilizado que ha sido fabricado según las más estrictas normas de control de la calidad. Para obtener valores de ensayo coherentes entre viales, será necesario almacenar y manipular el control según se indica.

Suministros opcionales:

Ref. n° 987000 – Tapones goteros (100/paquete)

 **Los cambios significativos están resaltados.**

PORTUGUÊS

UTILIZAÇÃO

O Liquid Assayed Multiquel destina-se a ser utilizado como soro de controlo da qualidade ensaiado para controlar a precisão dos procedimentos laboratoriais de análise para os analitos listados neste folheto informativo.

SUMÁRIO E PRINCÍPIO

A utilização de materiais de controlo da qualidade é indicada como uma avaliação objectiva da precisão dos métodos e técnicas aplicadas e constitui uma parte integrante das boas práticas laboratoriais. Encontram-se disponíveis três níveis de controlo para permitir aferir o desempenho dentro dos limites clínicos.

REAGENTE

Este produto é preparado a partir de soro humano acrescido de material bioquímico purificado (extractos de tecidos de origem humana e animal), químicos, fármacos, conservantes e estabilizantes. O controlo é fornecido sob forma líquida para maior conveniência.

ARMAZENAMENTO E ESTABILIDADE

Este produto permanecerá estável até ao fim do prazo de validade desde que seja armazenado por abrir a uma temperatura de -20°C a -70°C. Para obter o melhor desempenho possível, evite armazenar o controlo num congelador de frio seco. Armazene os frascos longe da luz directa.

Descongelado e por abrir: Quando o material do controlo é descongelado e armazenado por abrir a uma temperatura de 2 a 8°C, todos os analitos permanecerão estáveis durante 30 dias, com as seguintes excepções: a Bilirrubina Directa permanecerá estável durante 11 dias, os Triglicédeos, o HDL, Colinesterase, e o Fósforo permanecerão estáveis durante 7 dias. Os valores da Bilirrubina Total e da Bilirrubina Directa poderão baixar e a actividade da Fosfatase Alcalina poderá aumentar. O controlo tem de ser armazenado congelado quando se utilizam métodos de AST sem piridoxal-5-fosfato.

Descongelado e aberto: Depois de descongelado e aberto o material de controlo, todos os analitos permanecerão estáveis durante 14 dias desde que sejam armazenados com a tampa firmemente apertada a uma temperatura de 2 a 8°C, com as seguintes excepções: a Bilirrubina Directa, os Triglicédeos, o HDL, **Colinesterase**, e o Fósforo permanecerão estáveis durante 7 dias. O LAP Arilamidase permanecerá estável durante 3 dias. A **PAP** deve ser imediatamente ensaiada.

Aliquota congelada: O AST/SGOT, a Bilirrubina Directa, o HDL, o Fósforo, o LDL, os Triglicédeos e o LAP Arilamidase permanecerão estáveis durante 14 dias desde que armazenados em frascos de aliquotas **âmbar** com a tampa firmemente apertada a uma temperatura de -20 a -70°C. Elimine qualquer material restante após cada utilização.

Este produto é enviado em condições de congelamento.

PROCEDIMENTO

Este produto deve ser tratado tal como as amostras dos pacientes e analisado de acordo com as instruções que acompanham o instrumento, o dispositivo ou o reagente que está a ser utilizado.

Deve deixar o controlo à temperatura ambiente (18 a 25°C) durante 1 hora ou até que esteja completamente descongelado. Pode encontrar-se presente um precipitado que se irá dissolver quando agitar o controlo. Antes de efectuar a recolha da amostra, agite suavemente o frasco do controlo até que ele se encontre homogéneo sem nenhuns sinais visíveis de precipitado. Caso esteja a efectuar uma análise aos vestígios de substâncias metálicas, não deve homogeneizar por meio de inversão. Reponha imediatamente a tampa e volte a armazenar a uma temperatura de 2 a 8°C após cada utilização.

Elimine quaisquer materiais descartados de acordo com as disposições locais em vigor para a eliminação de detritos biológicos. Caso ocorram danos na embalagem contacte a Bio-Rad Laboratories.

LIMITAÇÕES

- Este produto não deve ser utilizado após o fim do prazo de validade.
- Se existir evidência de contaminação microbiana ou se se observar um aspecto turvo excessivo no produto, descarte o frasco.
- Os níveis de Directa Bilirrubina, **Neo-natal Bilirrubina**, de Alanina Aminotransferase (ALT/SGPT), **Colinesterase** e **Tobramicina** podem ser gradualmente reduzidos durante o prazo de validade do produto.
- Este produto não deve ser utilizado como padrão.
- Os métodos sujeitos a interferência por ácido ascórbico poderão apresentar supressão da recuperação de ácido úrico.

VALORIZAÇÕES

Os valores médios impressos neste folheto derivam de análises repetidas e são específicos para este lote do produto. Os testes listados foram executados pelo fabricante e/ou por laboratórios independentes utilizando reagentes suportados pelo fabricante e uma amostra representativa deste lote de controlo. As médias laboratoriais individuais devem estar dentro dos limites correspondentes aceitáveis; no entanto, as médias laboratoriais podem variar dos valores listados durante o tempo de duração deste controlo. Variações ao longo do tempo e entre laboratórios podem dever-se a diferenças de técnicas, instrumentos ou reagentes, ou a modificações nas técnicas de teste pelo fabricante. Recomenda-se que cada laboratório estabeleça as suas próprias médias e limites aceitáveis e utilize os que são fornecidos apenas como guias.

Consulte o site www.qcnet.com para obter informações sobre actualizações de folhetos informativos.

CARACTERÍSTICAS ESPECÍFICAS DE DESEMPENHO

Este produto é um produto líquido estabilizado, fabricado de acordo com padrões rígidos de controlo de qualidade. Para obter valores de análise consistentes de frasco para frasco, o controlo obriga a um armazenamento e manuseamento apropriados, tal como é descrito.

Fornecimentos opcionais:

Referência n° 987000 – Tampas de fecho hermético (embalagem de 100)

-  **As alterações significativas estão realçadas!**

SVENSKA

AVSEDD ANVÄNDNING

Liquid Assayed Multiquel är avsedd att användas som ett analyserat kvalitetskontrollserum för övervakning av precisionen i laboratoriets analysmetoder, för de analyser som anges i denna bilaga.

SAMMANFATTNING OCH PRINCIP

Användning av kvalitetskontrollmaterial är indicerat för objektiv utvärdering av precisionen i använda metoder och tekniker och ingår i god laboratoriepraxis. Tre kontrollnivåer finns tillgängliga, för kontroll av prestandan inom det kliniska mätområdet.

REAGENS

Denna produkt är framställd av humant serum med tillsats av renade biokemiska substanser (humant och animalskt vävnadsextrakt), kemikalier, läkemedel samt konserveringsmedel och stabiliseringsmedel. Kontrollsubstansten tillhandahålls i praktisk vätskeform.

FÖRVARING OCH STABILITET

Denna produkt är stabil fram till utgångsdatum vid förvaring i öppnad förpackning vid -20 till -70°C. För optimal funktion bör förvaring i fryrs med automatisk avfrosthning undvikas. Förvara flaskorna mörkt.

Tinad och öppnad produkt: Efter att kontrollmaterialet har tinats är alla analyter stabila i 30 dagar vid förvaring i öppnad förpackning vid 2 till 8 °C, med följande undantag: Direkt bilirubin är stabilt i 11 dagar, triglycerider, HDL, Kolinesteras, och fosfor är stabila i 7 dagar. Värdena för total bilirubin och direkt bilirubin kan sjunka och värdena för alkaliskt fosfat kan öka. Kontrollen måste förvaras fryst vid användning av AST-metoder utan pyridoxal-5-fosfat.

Tinad och öppnad produkt: Efter att kontrollmaterialet har tinats och öppnats är alla analyter stabila i 14 dagar vid förvaring i tätslutande förpackning vid 2 till 8 °C, med följande undantag: direkt bilirubin, triglycerider, HDL, **Kolinesteras**, och fosfor är stabila i 7 dagar. LAP-arylamidas är stabilt i 3 dagar. **PAP** skall analyseras omedelbart.

Fryst alikvot: ASAT/SGOT, direkt bilirubin, HDL, fosfor, LDL, triglycerider samt LAP-arylamidas är stabila i 14 dagar vid förvaring i tätslutande, **bärnstensfärgade** alikvotflaskor vid -20 till -70 °C. Kasserat överblivet material efter varje användning.

Denna produkt transporteras fryst.

FÖRFARANDE

Denna produkt skall behandlas på samma sätt som patientprover och användas enligt anvisningarna för de instrument, kit och reagenser som används.

Låt kontrollen stå i rumstemperatur (18 till 25°C) i 1 timme eller tills den är helt upptinad. Ett precipitat kan föreligga, vilket löses upp när kontrollen blandas. Snurra flaskans innehåll försiktigt före användning, tills det är homogent och inget precipitat kan ses. Vid spårmetallanalys ska innehållet inte blandas genom att flaskan vänds upp och ner. Efter varje användning skall flaskan omedelbart förslutas och sättas tillbaka i kylförvaring vid 2-8°C.

Kasserat material skall bortscaffas enligt de avfallsbestämmelser som utfärdats av lokala myndigheter. Om förpackningen är skadad kontaktas närmaste Bio-Rad Laboratories försäljningsavdelning eller teknisk serviceavdelning.

BEGRÄNSNINGAR

- Denna produkt skall inte användas efter utgångsdatum.
- Vid tecken på mikrobiell kontaminering eller om vätskan är mycket grumlig skall flaskan kasseras.
- Nivåerna av direkt bilirubin, **neonatalt bilirubin**, alaninaminotransferas (ALT/SGPT), **Kolinesteras** och **tobramycin** kan sjunka gradvis under kontrollens hållbarhetstid.
- Denna produkt är inte avsedd att användas som standard.
- Metoder som utsätts för interferens av askorbinsyra kan uppvisa nedsatt utbyte av urinsyra.

NOMINELLA VÄRDEN

De medelvärden som anges i denna bipacksedel har tagits fram genom replikatanalyser och är specifika för denna produktbatch. De angivna testerna har utförts av tillverkaren och/eller oberoende laboratorier med användning av reagens som stöds av tillverkaren och representativa prover av denna kontrollbatch. Medelvärdena på det enskilda laboratoriet bör ligga inom motsvarande acceptabla område; laboratoriets medelvärden kan dock skilja sig från de angivna värdena under kontrollens livstid. Variationer över tid och från laboratorium till laboratorium kan bero på skillnader i laboratorteknik, instrument och reagens, eller på modifieringar av tillverkarens testmetoder. Vi rekommenderar att varje laboratorium fastställer sina egna medelvärden och acceptabla områden och endast betraktar de här angivna värdena som vägledande.

Besök www.qcnet.com för aktuell bipacksedelsinformation.

SPECIFIKA PRODUKTEGENSKAPER

Denna produkt är en stabiliserad vätska som framställs enligt strikta kvalitetskontrollstandarder. För jämna analysresultat från flaska till flaska skall kontrollen förvaras och hanteras korrekt, enligt anvisningarna.

Valfria förbruksartiklar:

Katalognr. 987000 – Klämlöck (100/förpackning)

-  **Signifikanta förändringar är markerade!**

DANSK

TILSIGTET ANVENDELSE

Liquid Assayed Multiquel er beregnet til anvendelse som en analyseret kvalitetskontrol med henblik på overvågning af præstationen af laboratoriets analysemetoder for de analytter, der er angivet i indlægssedlen.

RESUMÉ OG PRINCIP

Anvendelse af kvalitetskontrolmateriale er tilsigtet som en objektiv vurdering af de anvendte metoders og teknikkers præcision og er en integreret del af god laboratoriepraksis. Der er tre kontrolniveauer, så ydelsen kan overvåges inden for det kliniske område.

REAGENS

Dette produkt er fremstillet af human serum tilsat rensede biokemikalier (vævsekstrakt fra mennesker og dyr), kemikalier, lægemidler, konserveringsmidler og stabilisatorer. Kontrolmidlet leveres i væskeform.

OPBEVARING OG STABILITET

Dette produkt er holdbart til udløbsdatoen ved opbevaring uåbnet ved -20 til -70°C. Der opnås bedst ydelse ved ikke at opbevare kontrolmaterialet i frostfri fryser. Glassene skal opbevares et mørkt sted.

Optøet og uåbnet: Efter optøning og opbevaring uåbnet ved 2-8 °C vil alle analytter være holdbare i 30 dage med følgende undtagelser: Konjugeret bilirubin vil være holdbart i 11 dage, triglycerider, HDL, Cholinesterase, og phosphor vil være holdbare i 7 dage. Total bilirubin- og konjugeret bilirubinverdier kan reduceres, alkalisk phosphataseaktivitet kan stige. Kontrolmaterialet skal opbevares i frossen tilstand, når der anvendes aspartat aminotransferasemetoder (ASAT) uden pyridoxal-5-phosphat.

Optøet og åbnet: Når kontrolmaterialet er optøet og åbnet, vil alle analytter være holdbare i 14 dage ved opbevaring med tæt lukket låg ved 2-8 °C med følgende undtagelser: direkte bilirubin, triglycerider, HDL, **Cholinesterase**, og phosphor vil være holdbare i 7 dage. LAP-arylamidase vil være holdbart i 3 dage. **PAP** skal analyseres omgående.

Frossen aliquot: ASAT/SGOT, konjugeret bilirubin, HDL, phosphor, LDL, triglycerider og LAP arylamidase vil være holdbare i 14 dage ved opbevaring i **gule** afmålte hætteglas med tæt lukket låg ved -20 til -70 °C. Resten af materialet skal kasseres efter hver brug.

Dette produkt forsendes i frossen tilstand.

FREMANGSMÅDE

Dette produkt skal behandles på samme måde som patientprøver og anvendes iht. de vejledninger, der følger med det anvendte instrument, reagenskit eller reagens.

Det frosne kontrolmateriale skal stå i stuetemperatur (18-25°C), til det er helt tøet op. Der kan være udfældning, der opløses når materialet blandes. Inden analysering skal glasset forsigtigt rystes, til kontrolmaterialet er homogent uden udfældning. Til spormetalanalyse må kontrolmaterialet ikke blandes ved at vende glasset på hovedet. Luk omgående glasset igen efter brug, og sæt det til opbevaring i 2-8°C.

Kasseret materiale skal bortskaffes iht. gældende affaldsregulativer. Hvis emballagen er beskadiget, kontaktes nærmeste Bio-Rad Laboratories forhandler eller teknisk service hos Bio-Rad Laboratories.

BEGRÆNSNINGER

1. Dette produkt bør ikke anvendes efter udløbsdatoen.
2. Hvis der er tegn på mikrobiel kontaminering eller væsken er meget uklår, skal glasset kasseres.
3. Konjugeret bilirubin-, **neonatal bilirubin**, alaninaminotransferase (ALT/SGPT)-niveauer, **Cholinesterase** og **tobramycin** kan gradvist reduceres under produktets holdbarhedsperiode.
4. Dette produkt er ikke beregnet til anvendelse som standard.
5. Metoder, hvor resultatet udsættes for interferens fra ascorbinsyre, kan udvise utilstrækkelig registrering af urinsyre.

TILDELING AF VÆRDIER

De middelværdier, der er trykt i denne indlægsseddel, blev uledet af gentagne analyser og er specifikke for dette produktlot. De angivne analyser blev udført af producenten og/eller uafhængige laboratorier vha. reagenser understøttet af producenten og en repræsentativ prøve af dette lot af kontrolmateriale. Individuelle laboratoriemiddelværdier bør ligge inden for det i indlægssedlen angivne acceptable referenceområde, men kan dog variere i forhold til de angivne værdier i løbet af kontrolmaterialets levetid. Variationer over tid og imellem laboratorier kan skyldes forskellige laboratorteknikker, instrumenter og reagenser eller modifikationer i testmetoder fra producentens side. Det anbefales, at laboratorier fastlægger deres egne middelværdier og acceptable referenceområder og kun betragter de medfølgende værdier som vejledende.

Der henvises til www.qcnet.com vedr. opdateringer af indlægssedlen.

SPECIFIKKE YDELSESEGENSKABER

Dette produkt er en stabiliseret væske, der er produceret under strenge standarder for kvalitetskontrol. Kontrolmaterialet skal opbevares korrekt og håndteres som anvist for at give pålidelige resultater.

Ekstra tilbehør:

Katalognr. 987000 – Tryklåg (pakker a 100 stk.)

 **Væsentlige ændringer er fremhævet!**

TÜRKÇE

KULLANIM AMACI

Liquid Assayed Multiquel, laboratuvar test prosedürlerinin bu prospektüste listelenen analitler için kesinliğinin takip edilmesi amacıyla değerleri bilinen bir kalite kontrol serumu olarak kullanılması içindir.

ÖZET VE PRENSİP

Kalite kontrol materyallerinin kullanılması, çalışan yöntemlerin ve tekniklerin kesinliği ile ilgili objektif bir değerlendirme yapılması içindir ve iyi laboratuvar uygulamalarının ayrılmaz bir parçasıdır. Klinik aralıktaki performansın takip edilmesi için üç seviye kontrol mevcuttur.

REAKTİF

Bu ürün, saflaştırılmış biyokimyasal materyal (insan ve hayvan kaynaklı doku ekstraktları), kimyasallar, ilaçlar, koruyucu maddeler ve stabilizatörlerin eklenmiş olduğu insan serumundan hazırlanmaktadır. Kontrol kolay kullanımı amacıyla sıvı formda verilmektedir.

SAKLAMA VE STABİLİTE

Bu ürün, açılmadan -20 ila -70°C arasında saklandığında son kullanma tarihine kadar stabildir. Optimum performans için, buzlama yapan dondurucuda saklamaktan kaçının. Flakonları ışıktan uzakta saklayın.

Çözdürülmüş ve Açılmamış: Kontrol çözündürüldüğünde ve açılmadan 2 ila 8°C arasında saklandığında, aşağıdaki istisnalar dışında tüm analitler 30 gün boyunca stabildir: Direkt Bilirubin 11 gün ve Trigliseritler, HDL, Kolinesteraz, ve Fosfor ise 7 gün stabil kalacaktır. Total Bilirubin ve Direkt Bilirubin değerleri düşebilir, Alkalın Fosfataz aktivitesi yükselir. Piridoksal-5-fosfat bulunmayan AST yöntemleri kullanıldığında kontrol dondurularak saklanmalıdır.

Çözdürülmüş ve Açılmış: Kontrol çözündürüldükten ve açıldıktan sonra, aşağıdaki istisnalar dışında tüm analitler sıkıca kapatılıp 2 ila 8°C arasında saklandığında 14 gün stabildir: Direkt Bilirubin, Trigliseritler, HDL, **Kolinesteraz**, ve Fosfor 7 gün stabildir. LAP Arilamidaz 3 gün stabildir. **PAP** hemen test edilmelidir.

Donmuş Alikot: AST/SGOT, Direkt Bilirubin, HDL, Fosfor, LDL, Trigliseritler ve LAP Arilamidaz alikot olarak **amber** renkli flakonlar içinde sıkıca kapatılmış olarak -20 ila -70°C arasında saklandığında 14 gün stabildir. Her kullanımdan sonra kalan materyali atın.

Bu ürün donmuş halde sevkedilir.

PROSEDÜR

Bu ürün hasta örnekleri ile aynı muameleye tabi tutulmalıdır ve kullanılmakta olan cihaz, kit veya reaktif ile birlikte verilen talimatlara uygun olarak çalışılmalıdır.

Kontrolü oda sıcaklığında (18-25°C) 1 saat veya tamamen çözünene kadar bekletin. Karıştırıldığında ortadan kaybolan bir çökelti görülebilir. Numune almadan önce, içeriği göze görünür çökelti belirtisi kalmadan homojen hale gelene kadar yavaşça karıştırın. Eser metal analizi gerçekleştiriliyorsa, tersine çevirerek karıştırmayın. Her kullanımdan sonra kapağı derhal yerine takın ve 2 ila 8°C arasında saklayın.

Herhangi bir atık matzemeyi yerel atık yönetimi yetkililerinin gereklerine uygun olarak atın. Ambalajda hasar olması durumunda, Bio-Rad Laboratories Satış Ofisi veya Bio-Rad Laboratories Teknik Servisi ile irtibata geçin.

SINIRLAMALAR

1. Bu ürün son kullanma tarihinden sonra kullanılmamalıdır.
2. Üründe mikrobiyal kontaminasyona veya aşırı türbiditeye dair bir gösterge varsa, flakonun atın.
3. Direkt Bilirubin, **Neonatal Bilirubin**, Alanin Aminotransferaz (ALT/SGPT), **Cholinesterase** ve **Tobramisin** seviyeleri ürünün raf ömrü sırasında kademeli olarak düşebilir.
4. Bu ürünün bir standart olarak kullanılması amaçlanmamıştır.
5. Askorbik Asit ile interferans gösterebilecek yöntemler bastırılmış ürik asit dönüşümü sergileyebilir.

DEĞERLERİN TAYİN EDİLMESİ

Bu prospektüste yazılı olan ortalama değerler tekrar tekrar yapılan analizlerden elde edilmiştir ve ürünün bu lotuna özgüdür. Listelenen testler, üreticinin sağladığı reaktifler ve kontrolün bu lotunun temsili bir numunesi kullanılarak üretici ve/veya bağımsız laboratuvarlar tarafından gerçekleştirilmiştir. Aynı aynı laboratuvar ortalamaları karşılık gelen kabul edilebilir aralık içerisinde olmalıdır; bununla birlikte laboratuvar ortalamaları bu kontrolün ömrü süresince listelenen değerlerden farklı olabilir. Zaman içerisindeki ve laboratuvarlar arasındaki değişiklikler laboratuvar tekniği, cihaz ve reaktiflerdeki farklılıklar veya üreticinin test yöntemindeki modifikasyonları neden olabilir. Her laboratuvarın kendi ortalamalarını ve kabul edilebilir aralıklarını belirlemeleri ve verilen bu değerleri sadece kılavuz olarak kullanmaları önerilir.

Güncel prospektüs bilgileri için www.qcnet.com adresine bakın.

SPESİFİK PERFORMANS ÖZELLİKLERİ

Bu ürün, sıkı kalite kontrol standartları altında üretilmiş stabilize bir sıvı üründür. Flakondan flakona tutarlı test değerleri elde etmek için kontrolün belirtilen şekillerde saklanması ve kullanılması gerekmektedir.

İsteğe bağlı Malzemeler

Parça No. 987000 Dispenser Tips for Screw Caps (Vidalı kapaklar için dağıtıcı uçlar) (100/paket)

 **Önemli değişiklikler vurgulanmıştır.**

DİPNOTLAR

- (1) Endojen seviyeler.
 - (2) Değerler verilmemiştir.
 - (3) Sadece enzimatik yöntemler.
 - (4) Değerler 37°C'de elde edilmiştir.
 - (5) Ortalama değer, bu yöntem kullanılarak cihaz tarafından oluşturulan verilerden hesaplanır.
 - (6) mg/dl Üre Azotu x 2,14 = mg/dl UREA.
S.I.U. değer aralığı UREA olarak ifade edilir.
 - (7) Bu ürün prospektüste listelenmiş metodolojiler kullanılarak test edilmiştir. Bu ürünün performansı kapiler elektroforez yöntemleri kullanılarak değerlendirilmemiştir.
- ▲ Basım aşamasında veri mevcut değil. Lütfen bilgi alın.
- § Bu test ile ilgili ortalama değerlerin ve kabul edilebilir aralıkların belirlenmesi için gereken veriler tayine sınırlı sayıda katılımdan dolayı sağlanamamıştır. Merkeziniz bu test ile ilgili Değer Tayini Programına katılmayı düşünürsə, lütfen yerel Bio-Rad Satış veya Teknik Servis Grubu ile irtibata geçin.
- ❖ SADECE ULUSLARARASI KULLANIM - Aşağıdaki bölüm Birleşik Devletlerde diagnostik kullanım için mevcut olmayan yöntemlere dair veriler içermektedir.

ENGLISH

Biological source material. Treat as potentially infectious.

Each human donor unit used to manufacture this control was tested by FDA accepted methods and found non-reactive for Hepatitis B Surface Antigen (HBsAg), antibody to Hepatitis C (HCV) and antibody to HIV-1/HIV-2. This product may also contain other human source material for which there are no approved tests. In accordance with good laboratory practice, all human source material should be considered potentially infectious and handled with the same precautions used with patient specimens.

Material Safety Data Sheet (MSDS) available for professional users on www.bio-rad.com.

DEUTSCH

Material biologischer Herkunft. Als potentiell infektiös zu behandeln.

Jede zur Herstellung dieser Kontrolle verwendete menschliche Spendereinheit wurde mit von der amerikanischen Arzneimittelbehörde FDA (Food and Drug Administration) zugelassenen Methoden getestet und als nicht-reaktiv bezüglich Hepatitis-B-Oberflächen-Antigen (HBsAg), Antikörper gegen Hepatitis C (HCV) und Antikörper gegen HIV-1/HIV-2 befunden. Das Produkt enthält möglicherweise auch andere Bestandteile menschlichen Ursprungs, für die keine zugelassenen Tests existieren. In Übereinstimmung mit der guten Laborpraxis sollten alle Materialien menschlichen Ursprungs als potentiell infektiös betrachtet und mit der gleichen Sorgfalt wie Patientenproben behandelt werden.

Sicherheitsdatenblätter (MSDS) stehen Ihnen im Internet unter www.bio-rad.com zur Verfügung.

FRANÇAIS

Produit d'origine biologique. A considérer comme potentiellement infectieux.

Chaque unité de produit provenant d'un donneur humain et

utilisé dans la préparation de ce contrôle a été analysée à l'aide de méthodes approuvées par la FDA et a présenté des résultats négatifs pour l'antigène de surface de l'hépatite B (AgHBs), et les anticorps de l'hépatite C (VHC) et du VIH-1/VIH-2. Il est possible que ce produit contienne d'autres substances d'origine humaine pour lesquelles il n'existe pas de test agréé. Conformément aux bonnes pratiques de laboratoire, toute substance d'origine humaine doit être considérée comme potentiellement infectieuse et manipulée avec les mêmes précautions que les échantillons provenant de patients. Une fiche de sécurité (FDS) est à disposition des utilisateurs professionnels sur le site www.bio-rad.com.

ITALIANO

Materiale di origine biologica. Trattare come potenzialmente infettivo.

Ciascuna unità donatore utilizzata per preparare questo controllo è stata testata mediante metodi approvati dalla FDA e risultata non reattiva per l'antigene di superficie dell'epatite B (HBsAg), l'anticorpo contro l'epatite C (HCV) e l'anticorpo contro l'HIV-1/HIV-2. Questo prodotto può anche contenere altro materiale di origine umana per il quale non esistono procedure di dosaggio raccomandate. Secondo le buone pratiche di laboratorio, tutti i materiali di origine umana devono essere considerati potenzialmente infettivi, perciò si raccomanda di trattare questo prodotto con le medesime precauzioni adottate per i campioni dei pazienti.

Scheda informativa sulla sicurezza del materiale (MSDS) ad uso professionale disponibile al sito www.bio-rad.it.

ESPAÑOL

Material de origen biológico. Manipular como potencialmente infeccioso.

Todas las unidades de donantes humanos utilizadas en la fabricación de este control se han analizado según métodos de análisis aceptados por la FDA (agencia estadounidense para alimentos y fármacos) y se ha determinado que no reaccionan

contra el antígeno superficial de la hepatitis B (HBsAg), el anticuerpo de la hepatitis C (VHC) y el anticuerpo del VIH-1/VIH-2. Este producto puede contener asimismo material de origen humano para el que no existen análisis homologados. De acuerdo con las prácticas de laboratorio correctas, todo material de origen humano se debe considerar potencialmente infeccioso y manipular con las mismas precauciones que las muestras de pacientes.

La ficha de datos de seguridad (MSDS) está disponible para los usuarios profesionales en www.bio-rad.com.

PORTUGUÊS

Material de origem biológica. Manusear como sendo potencialmente infeccioso.

Cada unidade do dador humano utilizada no fabrico deste controlo foi testada pelos métodos aprovados pela FDA (Administração dos Alimentos e Fármacos dos Estados Unidos da América), tendo sido considerada não reactiva em antígenos de superfície da Hepatite B (HBsAg), ao anticorpo da Hepatite C (HCV) e ao anticorpo do VIH-1/VIH-2. Este produto também poderá conter outros materiais de origem humana para os quais não existem testes aprovados. De acordo com as boas práticas laboratoriais, todo o material de origem humana deve ser considerado potencialmente infeccioso pelo que deverá ser manuseado com as mesmas precauções utilizadas com as amostras dos pacientes.

Existem fichas de dados de segurança (MSDS) disponíveis para os utilizadores profissionais em www.bio-rad.com.

SVENSKA

Material av biologiskt ursprung. Skall behandlas som potentiellt infektiöst.

Varje enhet från humana donatorer till denna kontroll har testats enligt FDA-godkända metoder och har visat sig icke-reaktiv för hepatit B ytantigen (HBsAg), antikroppar mot hepatit C (HCV) och antikroppar mot HIV-1/HIV-2. Denna produkt kan även innehålla annat material av humant ursprung, för vilket godkända tester

saknas. Enligt god laboratoriepraxis bör alla material av humant ursprung betraktas som potentiellt infektiösa och hanteras enligt samma försiktighetsregler som patientprover.

Säkerhetsdatablad för laboratoriepersonal finns på www.bio-rad.com.

DANSK

Biologisk kildemateriale. Bør behandles som potentiel smittekilde.

Alle enheder fra mennesker, som er blevet benyttet til fremstilling af dette produkt, er blevet testet iht. FDA-godkendte metoder og har vist sig at være ikke-reaktive overfor hepatitis B overfladeantigen (HBsAg), antistof mod hepatitis C (HCV) og antistof mod HIV-1/HIV-2. Dette produkt kan også indeholde andre materialer af human oprindelse, der ingen godkendte test er for. I overensstemmelse med god laboratoriepraksis bør alle materialer af human oprindelse betragtes som potentielt smittefarlige og håndteres efter samme forholdsregler som patientprøver.

Professionelle brugere kan få sikkerhedsdatabladet (MSDS) på www.bio-rad.com.

TÜRKÇE

Biyolojik kaynaklı madde. Potansiyel bulaşıcı olarak muamele edin.

Bu kontrolün üretiminde kullanılan her bir insan donör birimi FDA tarafından kabul edilen yöntemlerle test edilmiştir ve Hepatit B Yüzey Antijeni (HBsAg), Hepatit C'ye karşı antikor (HCV) ve HIV-1/HIV-2'ye karşı antikor açısından reaksiyona yol açmadığı bulunmuştur. Bu ürün aynı zamanda henüz onaylanmış testi bulunmayan diğer insan kaynaklı maddeler de içerebilir. İyi laboratuvar uygulamasına uygun şekilde, tüm insan kaynaklı maddeler potansiyel bulaşıcı olarak dikkate alınmalıdır ve hasta örneklerinde uygulanan önlemlerin aynı ile kullanılmalıdır.

Profesyonel kullanım için www.bio-rad.com adresinde Malzeme Güvenlik Veri Sayfası (MSDS) mevcuttur.

GLOSSARY	GLOSSAR	GLOSSAIRE	GLOSSARIO	GLOSARIO	GLOSSÁRIO	ORDLISTA	ORDLISTE
ANALYTES Acetaminophen Acid Phosphatase Alanine Aminotransferase (ALT/SGPT) Albumin Alkaline Phosphatase (ALP) Alpha-1-Antitrypsin (1) Alpha-Hydroxybutyrate Dehydrogenase (αHBDH) (1) Amikacin (2) Amylase Amylase, Pancreatic Apolipoprotein A-1 (1) Apolipoprotein B (1) Aspartate Aminotransferase (AST/SGOT) Bilirubin, Direct Bilirubin, Neonatal Bilirubin, Total C3 Complement (1) C4 Complement (1) Calcium, Ionized (2) Calcium, Total Carbamazepine Carbon Dioxide (CO ₂) Ceruloplasmin (1) Chloride Cholesterol, High Density Lipoprotein (HDL) Cholesterol, Low Density Lipoprotein (LDL) Cholesterol, Total Cholinesterase (1) CK-MB Isoenzyme (3) Copper (1) Cortisol Creatine Kinase (CK) Creatinine Digoxin Ethanol Ferritin (1) Gamma Glutamyltransferase (GGT) Gentamicin Globulin (1) Glucose Haptoglobin (1) Immunoglobulin A (IgA) (1) Immunoglobulin G (IgG) (1) Immunoglobulin M (IgM) (1) Iron Iron-Binding Capacity, Total (TIBC) (1) Iron-Binding Capacity, Unsaturated (UIBC) (1) Lactate (Lactic Acid) Lactate Dehydrogenase (LDH) LAP - Arylamidase (1) Lipase Lithium Magnesium Osmolality Phenobarbital Phenytoin Phospholipids (2) Phosphorus Potassium Prealbumin (1) Prostatic Acid Phosphatase (PAP) (2) Protein Electrophoresis (1) (7) Protein, Total Salicylate Sodium T3 Total T3 Uptake/T-Uptake T4 Free T4 Total Theophylline Thyroid Stimulating Hormone (TSH) Tobramycin Transferrin (1) Triglycerides Urea Urea Nitrogen (BUN) Uric Acid Valproic Acid Vitamin B ₁₂ (1) Zinc	ANALYTE Acetaminophen Saure Phosphatase Alanin-Aminotransferase (ALT/SGPT) Albumin Alkalische Phosphatase (ALP) Alpha-1-Antitrypsin (1) Alpha-Hydroxybutyrat Dehydrogenase (αHBDH) (1) Amikacin (2) Amylase Amylase, pankreatisch Apolipoprotein A-1 (1) Apolipoprotein B (1) Aspartat-Aminotransferase (AST/SGOT) Bilirubin, direkt Bilirubin, neonatal Bilirubin, gesamt Complement C3 (1) Complement C4 (1) Calcium, ionisiert (2) Calcium, gesamt Carbamazepin Kohlendioxid (CO ₂) Ceruleoplasmin (1) Chlorid Cholesterin, Lipoprotein hoher Dichte (HDL) Cholesterin, Lipoprotein niedriger Dichte (LDL) Cholesterin, gesamt Cholinesterase (1) CK-MB Isoenzyme (3) Kupfer (1) Cortisol Creatin-Kinase (CK) Creatinin Digoxin Ethanol Ferritin (1) Gamma-Glutamyltransferase (GGT) Gentamicin Globulin (1) Glucose Haptoglobine (1) Immunoglobulin A (IgA) (1) Immunoglobulin G (IgG) (1) Immunoglobulin M (IgM) (1) Eisen Eisenbindungskapazität, gesamt (TIBC) (1) Eisenbindungskapazität, latent (UIBC) (1) Lactat (Milchsäure) Laktatdehydrogenase (LDH) LAP - Arylamidase (1) Lipase Lithium Magnesium Osmolalität Phenobarbital Phénytoine Phospholipide (2) Phosphor Kalium Präalbumin (1) Prostata-saure Phosphatase (PAP) (2) Proteinelektrophorese (1) (7) Gesamteiweiß Salicylat Natrium T3, gesamt T3-Uptake/T-Uptake T4, frei T4, gesamt Theophylline Thyreoida-stimulierendes Hormon (TSH) Tobramycin Transferrin (1) Triglycerides Harnstoff Harnstoff-Stickstoff (BUN) Harnsäure Valproinsäure Vitamin B ₁₂ (1) Zink	ANALYTES Acétaminophène Phosphatase acide Alanine aminotransférase (ALT/SGPT) Albumine Phosphatase alcaline (ALP) Alpha-1-antitrypsine (1) Alpha-hydroxybutyrate deshydrogénase (αHBDH) (1) Amikacine (2) Amylase Amylase, pancréatique Apolipoprotéine A-1 (1) Apolipoprotéine B (1) Aspartate aminotransférase (AST/SGOT) Bilirubine, directe Bilirubine, néonatale Bilirubine, totale C3 complément (1) C4 complément (1) Calcium, ionisé (2) Calcium, total Carbamazépine Dioxyde de carbone (CO ₂) Céruloplasmine (1) Chlorure Cholestérol, lipoprotéine de haute densité (HDL) Cholestérol, lipoprotéine de basse densité (LDL) Cholestérol, total Cholinestérase (1) Isoenzyme CK-MB (3) Cuivre (1) Cortisol Créatine kinase (CK) Créatinine Digoxine Ethanol Ferritine (1) Gamma glutamyltransférase (GGT) Gentamicine Globuline (1) Glucose Haptoglobine (1) Immunoglobuline A (IgA) (1) Immunoglobuline G (IgG) (1) Immunoglobuline M (IgM) (1) Fer Capacité de fixation du fer, total (TIBC) (1) Capacité de fixation du fer, insaturé (UIBC) (1) Lactate (acide lactique) Lactate déshydrogénase (LDH) LAP - Arylamidase (1) Lipase Lithium Magnésium Osmolalité Phénobarbital Phénytoïne Phospholipides (2) Phosphore Potassium Préalbumine (1) Phosphatase acide prostatique (PAP) (2) Electrophorèse de protéines (1) (7) Protéines totales Salicylate Sodium T3, total T3, fixation/T, fixation T4, libre T4, total Theophylline Hormone de stimulation de la thyroïde (TSH) Tobramycine Transferrine (1) Triglicérides Urée Azote uréique (BUN) Acide urique Acide valproïque Vitamine B ₁₂ (1) Zinc	ANALITI Acetaminofene Fosfatasi acida Alanina aminotransferasi (ALT/SGPT) Albumina Fosfatasi alkalina (ALP) Alfa-1-antitripsina (1) Deidrogenasi alfa-idrossibutirato (αHBDH) (1) Amikacina (2) Amilasi Amilasi pancreatica Apolipoproteina A-1 (1) Apolipoproteina B (1) Aspartato aminotransferasi (AST/SGOT) Bilirubina, directa Bilirubina, neonatal Bilirubina, totale Complemento C3 (1) Complemento C4 (1) Calcio, ionizzato (2) Calcio, totale Carbamazepina Biossido di carbonio (CO ₂) Ceruleoplasmina (1) Cloruro Colesterolo, lipoproteina ad alta densità (HDL) Colesterolo, lipoproteina a bassa densità (LDL) Colesterolo totale Colinesterasi (1) Isoenzima CK-MB (3) Rame (1) Cortisolo Creatina chinasi (CK) Creatinina Digossina Etanolo Ferritina (1) Gamma glutamiltitransferasi (GGT) Gentamicina Globulina (1) Glucosio Aptoglobina (1) Immunoglobulina A (IgA) (1) Immunoglobulina G (IgG) (1) Immunoglobulina M (IgM) (1) Ferro Capacità legante del ferro totale (TIBC) (1) Capacità legante del ferro non satura (UIBC) (1) Lattato (acido lattico) Lattato deidrogenasi (LDH) LAP - Arilamidasi (1) Lipasi Litio Magnesio Osmolalità Fenobarbital Fenitoina Fosfolipidi (2) Fosforo Potassio Preatbumina (1) Fosfatasi acida prostatica (PAP) (2) Biettroforesi proteica (1) (7) Proteine totali Salicilato Sodio T3 totale Captazione del T3/Captazione del T T4 (libre) T4 totale Teofillina Ormone stimolante la tiroide (TSH) Tobramicina Transferrina (1) Trigliceridi Urea Azoto ureico (BUN) Acido urico Acido valproico Vitamina B ₁₂ (1) Zinco	ANALITOS Acetaminofeno Fosfatasa Ácida Alanina Aminotransferasa (ALT/SGPT) Álbúmina Fosfatasa Alcalina (ALP) Alfa-1-antitripsina (1) Alfa Hidroxibutirato Deshidroxigenasa (αHBDH) (1) Amikacina (2) Amilasa Amilasa pancreática Apolipoproteína A-1 (1) Apolipoproteína B (1) Aspartato aminotransferasa (AST/SGOT) Bilirubina, directa Bilirubina, Neo-natal Bilirubina, Total Complemento C3 (1) Complemento C4 (1) Calcio, iónico (2) Calcio, Total Carbamazepina Dióxido de carbono (CO ₂) Ceruleoplasmina (1) Cloruro Coolestero, lipoproteína de alta densidad (HDL) Coolestero, lipoproteína de baja densidad (LDL) Coolestero, total Colinesterasa (1) CK-MB, Isoenzima (3) Cobre (1) Cortisol Creatina quinasa (CK) Creatinina Digoxina Etanol Ferritina (1) Gamma glutamiltitransferasa (GGT) Gentamicina Globulina (1) Glucosa Haptoglobina (1) Immunoglobulina A (IgA) (1) Immunoglobulina G (IgG) (1) Immunoglobulina M (IgM) (1) Hierro Capacidad total de fijación de hierro (TIBC) (1) Capacidad insaturada de fijación de hierro (UIBC) (1) Lactato (Ácido láctico) Lactato dehidroxigenasa (LDH) LAP - Arilamidasa (1) Lipasa Litio Magnesio Osmolalidad Fenobarbital Fenitoina Fosfolípidos (2) Fósforo Potasio Preatbumina (1) Fosfatasa Ácida Prostática (PAP) (2) Electroforesis de las proteínas (1) (7) Proteínas, total Salicilato Sodio T3 (total) T3 (Captación)/T (Captación) T4 (libre) T4 (total) Teofilina Hormona estimulante del tiroides (TSH) Tobramicina Transferrina (1) Triglicéridos Urea Urea nitrogenada (BUN) Ácido úrico Ácido valpróico Vitamina B ₁₂ (1) Zinc	ANALITOS Acetaminofeno Fosfatase ácida Alanina Aminotransferase (ALT/SGPT) Albumina Fosfatase alcalina (ALP) Alfa-1-antitripsina (1) Alfa Hidroxibutirato desidrogenase (αHBDH) (1) Amikacina (2) Amilase Amilase, Pancreática Apolipoproteína A-1 (1) Apolipoproteína B (1) Aspartato Aminotransferase (AST/SGOT) Bilirubina, Directa Bilirubina, Neo-natal Bilirubina, Total Complemento C3 (1) Complemento C4 (1) Cálcio, ionizado (2) Cálcio, Total Carbamazepina Dióxido de carbono (CO ₂) Ceruleoplasmina (1) Cloreto Coolestero, lipoproteína de alta densidad (HDL) Coolestero, lipoproteína de baixa densidad (LDL) Coolestero, Total Colinesterase (1) CK-MB, Isoenzima (3) Cobre (1) Cortisol Creatina quinase (CK) Creatinina Digoxina Etanol Ferritina (1) Gama glutamiltitransferase (GGT) Gentamicina Globulina (1) Glucose Haptoglobina (1) Imunoglobulina A (IgA) (1) Imunoglobulina G (IgG) (1) Imunoglobulina M (IgM) (1) Ferro Capacidade de ligação ao ferro, Total (TIBC) (1) Capacidade de ligação ao ferro, Não saturada (UIBC) (1) Lactato (Ácido láctico) Lactato desidrogenase (LDH) LAP - Arilamidase (1) Lipase Lítio Magnésio Pressão osmótica Fenobarbital Fenytoina Fosfolípidos (2) Fósforo Potássio Preatbumina (1) Fosfatase ácida prostática (PAP) (2) Electroforese de proteínas (1) (7) Proteína, Total Salicilato Sódio T3 total Absorção de T3/Absorção de T T4 livre T4 total Teofilina Hormona estimulante da tireóide (TSH) Tobramicina Transferrina (1) Triglicérideos Ureia Nitrogénio de ureia (BUN) Ácido úrico Ácido valpróico Vitamina B ₁₂ (1) Zinco	ANALYTER Acetaminofen Surt fosfatas Alaninaminotransferas (ALAT/SGPT) Albumin Alkalisikt fosfatas (ALP) Alfa-1-antitrypsin (1) Alfa-hydroxybutyrate deshydrogenas (αHBDH) (1) Amikacin (2) Amylas Amylas, pankreas Apolipoprotein A-1 (1) Apolipoprotein B (1) Aspartataminotransferase (AST/SGOT) Bilirubin, direkt Bilirubin, neonalt Bilirubin, total C3 Komplement (1) C4 Komplement (1) Kalcium, joniserat (2) Kalcium, total Karbamazepin Koldioxid (CO ₂) Ceruleoplasmin (1) Klorid Kolesterol, High Density Lipoprotein (HDL) Kolesterol, Low Density Lipoprotein (LDL) Kolesterol, totalt Colinesteras (1) CK-MB-Isoenzym (3) Kobber (1) Kortisol Kreatinkininas (CK) Kreatinin Digoxin Etanol Ferritin (1) Gamma glutamyltransferas (GGT) Gentamicin Globulin (1) Glukose Haptoglobin (1) Immunoglobulin A (IgA) (1) Immunoglobulin G (IgG) (1) Immunoglobulin M (IgM) (1) Jern Jämbindande kapacitet, total (TIBC) (1) Jämbindande kapacitet, omättad (UIBC) (1) Laktat (mjölksyra) Laktatdehydrogenas (LDH) LAP - Arylamidase (1) Lipas Litium Magnesium Osmolalitet Fenobarbital Fenytoin Fosfolipider (2) Fosfor Kalium Prealbumin (1) Prostatiska sura fosfataser (PAP) (2) Proteinielektroforeser (1) (7) Totalprotein Salicylat Natrium T3, totalt T3-upptag/T-upptag T4, fritt T4, totalt Teofyllin Thyreoidaestimulerande hormon (TSH) Tobramycin Transferrin (1) Triglycerider Urea Ureakväve (BUN) Urinsyra Valproinsyra Vitamin B ₁₂ (1) Zink	ANALYTTER Acetaminofen Sur phosphatase Alaninaminotransferase (ALT/SGPT) Albumin Alkalisikt phosphatase (ALP) Alpha-1-antitrypsin (1) Alphahydroxybutyrate deshydrogenae (αHBDH) (1) Amikacin (2) Amylase Amylase, pankreatisk Apolipoprotein A-1 (1) Apolipoprotein B (1) Aspartataminotransferase (AST/SGOT) Bilirubin, direkte Bilirubin, neonatal Bilirubin, total C3 komplement (1) C4 komplement (1) Kalcium, ioniseret (2) Kalcium, total Karbamazepin Carbonoxid (CO ₂) Ceruleoplasmin (1) Chlorid Cholesterol, lipoprotein med høj densitet (HDL) Cholesterol, lipoprotein med lav densitet (LDL) Cholesterol, total Cholinesterase (1) CK-MB isoenzym (3) Kobber (1) Cortisol Creatinkinase (CK) Creatinin Digoxin Ethanol Ferritin (1) Gamma glutamyltransferase (GGT) Gentamicin Globulin (1) Glucose Haptoglobin (1) Immunoglobulin A (IgA) (1) Immunoglobulin G (IgG) (1) Immunoglobulin M (IgM) (1) Jern Jernbindingskapacitet, total (TIBC) (1) Jernbindingskapacitet, umættet (UIBC) (1) Lactat (mælkesyre) Lactatdehydrogenase (LDH) LAP - Arylamidase (1) Lipase Lithium Magnesium Osmolalitet Phenobarbital Fenytoin Phospholipider (2) Phosphor Kalium Prealbumin (1) Sur phosphatase fra prostata (PAP) (2) Protein elektroforese (1) (7) Protein, total Salicylat Natrium T3 total T3 absorption/T absorption T4 fri T4 total Teofyllin Thyreoidaestimulerende hormon (TSH) Tobramycin Transferrin (1) Triglycerider Urea Ureanitrogen (BUN) Urinsyre Valproinsyre Vitamin B ₁₂ (1) Zink
TERMS Mean Range Units	BEGRIFFE Mittelwert Bereich Einheiten	TERMES Moyenne Plage de valeurs Unités	TERMINI Media Intervallo Unità	TÉRMINOS Media Rango Unidades	TERMOS Média Limites Unidades	TERMER Medelvärde Område Enheter	ORDLISTE Gennemsnit Område Enheder

METHOD														
Methode // Méthode // Metodo // Método // Método // Metod // Metode														
	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range
ACETAMINOPHEN														
Syva EMIT 2000	µg/mL	14.1	11.3 – 16.9	46.3	37.1 – 55.6	158	126 – 189	µmol/L	93.2	74.6 – 112	306	245 – 367	1043	835 – 1252
ACID PHOSPHATASE														
Colorimetric Test Substrate Naphthyl. Pentandiol (4) (5)	U/L	11.6	9.29 – 13.9	20.6	16.4 – 24.7	42.6	34.1 – 51.1	µmol/L/sec	0.194	0.155 – 0.233	0.343	0.275 – 0.412	0.711	0.569 – 0.854
Teco Diagnostics TC-Matrix (Non-Prostatic) (Kinetic) (4)	U/L	1.50	1.13 – 1.88	2.20	1.70 – 2.80	5.00	3.70 – 6.20	µmol/L/sec	0.025	0.019 – 0.031	0.037	0.028 – 0.047	0.084	0.062 – 0.104
Teco Diagnostics TC-Matrix (Total) (Kinetic) (4)	U/L	5.20	3.93 – 6.55	11.9	8.90 – 14.9	27.9	20.9 – 34.9	µmol/L/sec	0.087	0.066 – 0.109	0.199	0.149 – 0.249	0.466	0.349 – 0.583
ALANINE AMINOTRANSFERASE (ALT/SGPT)														
IFCC 2002 (UV without P5P) (4) (5)	U/L	29.5	23.6 – 35.4	96.4	77.1 – 116	220	176 – 264	µmol/L/sec	0.493	0.394 – 0.591	1.61	1.29 – 1.93	3.67	2.93 – 4.40
IFCC 2002 (UV with P5P) (4) (5)	U/L	27.8	22.3 – 33.4	97.8	78.2 – 117	229	183 – 274	µmol/L/sec	0.465	0.372 – 0.558	1.63	1.31 – 1.96	3.82	3.06 – 4.58
Pointe Scientific, Inc. (4)	U/L	23.0	18.0 – 28.0	79.0	61.0 – 97.0	181	140 – 222	µmol/L/sec	0.384	0.301 – 0.468	1.32	1.02 – 1.62	3.02	2.34 – 3.71
Sekisui (Genzyme) Diagnostics (UV without P5P) (4)	U/L	37.0	30.0 – 44.0	133	106 – 160	307	246 – 368	µmol/L/sec	0.618	0.501 – 0.735	2.22	1.77 – 2.67	5.13	4.11 – 6.15
Synermed IR500-II (IFCC) (4)	U/L	28.1	22.5 – 33.7	98.1	78.6 – 118	222	178 – 266	µmol/L/sec	0.469	0.376 – 0.563	1.64	1.31 – 1.97	3.71	2.97 – 4.44
Teco Diagnostics TC-Matrix (Optimized Tris Liquid) (4)	U/L	24.4	18.3 – 30.5	87.1	65.3 – 109	202	152 – 252	µmol/L/sec	0.407	0.306 – 0.510	1.45	1.09 – 1.82	3.37	2.53 – 4.22
ALBUMIN														
Pointe Scientific, Inc. - BCG	g/dL	2.70	2.10 – 3.30	3.60	2.80 – 4.40	4.70	3.60 – 5.80	g/L	27.0	21.0 – 33.0	36.0	28.0 – 44.0	47.0	36.0 – 58.0
Sekisui (Genzyme) Diagnostics (Bromcresol green)	g/dL	2.90	2.60 – 3.20	3.70	3.30 – 4.10	4.80	4.30 – 5.30	g/L	29.0	26.0 – 32.0	37.0	33.0 – 41.0	48.0	43.0 – 53.0
Synermed IR500-II	g/dL	2.53	2.03 – 3.03	3.30	2.64 – 3.96	4.30	3.44 – 5.16	g/L	25.3	20.3 – 30.3	33.0	26.4 – 39.6	43.0	34.4 – 51.6
Teco Diagnostics TC-Matrix (Bromcresol green)	g/dL	2.60	1.95 – 3.25	3.30	2.50 – 4.10	4.20	3.10 – 5.20	g/L	26.0	19.5 – 32.5	33.0	25.0 – 41.0	42.0	31.0 – 52.0
ALKALINE PHOSPHATASE (ALP)														
IFCC Liquid (4) (5)	U/L	32.3	25.8 – 38.8	136	109 – 164	259	207 – 311	µmol/L/sec	0.539	0.431 – 0.647	2.28	1.82 – 2.73	4.33	3.46 – 5.19
PNPP; AMP Buffer (4) (5)	U/L	33.6	26.9 – 40.3	175	140 – 210	345	276 – 414	µmol/L/sec	0.561	0.449 – 0.673	2.93	2.34 – 3.51	5.76	4.61 – 6.91
Pointe Scientific, Inc. - P-NPP (4)	U/L	34.0	26.0 – 42.0	157	121 – 193	306	236 – 376	µmol/L/sec	0.568	0.434 – 0.701	2.62	2.02 – 3.22	5.11	3.94 – 6.28
Sekisui (Genzyme) Diagnostics (4)	U/L	42.0	34.0 – 50.0	196	157 – 235	385	308 – 462	µmol/L/sec	0.701	0.568 – 0.835	3.27	2.62 – 3.92	6.43	5.14 – 7.72
Synermed IR500-II (IFCC) (4)	U/L	33.6	26.9 – 40.3	162	130 – 194	319	255 – 383	µmol/L/sec	0.561	0.449 – 0.673	2.71	2.17 – 3.24	5.33	4.26 – 6.40
Teco Diagnostics TC-Matrix (Modified Bowers-McComb Liquid) (4)	U/L	35.2	26.4 – 43.9	160	120 – 200	321	241 – 401	µmol/L/sec	0.588	0.440 – 0.734	2.68	2.01 – 3.34	5.36	4.02 – 6.70
ALPHA-HYDROXYBUTYRATE DEHYDROGENASE (CkHBDH) (1)														
Standard Method Option (4) (5)	U/L	92.1	73.7 – 111	144	115 – 172	350	280 – 419	µmol/L/sec	1.54	1.23 – 1.85	2.40	1.92 – 2.88	5.84	4.67 – 7.01
AMYLASE														
Alpha-Amylase - EPS-G7 (4) (5)	U/L	45.1	36.1 – 54.1	135	108 – 162	276	221 – 331	µmol/L/sec	0.753	0.602 – 0.903	2.26	1.80 – 2.71	4.61	3.69 – 5.53
Pointe Scientific, Inc. - CNPG3 (4)	U/L	38.0	33.0 – 43.0	123	99.0 – 147	255	191 – 319	µmol/L/sec	0.635	0.551 – 0.718	2.05	1.65 – 2.45	4.26	3.19 – 5.33
Sekisui (Genzyme) Diagnostics (CNP-triose/CNPG3) (4)	U/L	46.0	37.0 – 55.0	153	130 – 176	316	269 – 363	µmol/L/sec	0.768	0.618 – 0.919	2.56	2.17 – 2.94	5.28	4.49 – 6.06
Synermed IR500-II (4)	U/L	51.4	41.2 – 61.6	155	124 – 186	314	251 – 377	µmol/L/sec	0.858	0.688 – 1.03	2.59	2.07 – 3.11	5.24	4.19 – 6.30
AMYLASE, PANCREATIC														
Alpha Amylase, Pancreatic - EPS-G7 Liquid (4) (5)	U/L	25.7	20.6 – 30.9	104	83.0 – 124	230	184 – 276	µmol/L/sec	0.429	0.344 – 0.515	1.73	1.39 – 2.08	3.85	3.08 – 4.62
ASPARTATE AMINOTRANSFERASE (AST/SGOT)														
IFCC 2002 (UV with P5P) (4) (5)	U/L	40.1	32.1 – 48.2	113	90.1 – 135	264	211 – 316	µmol/L/sec	0.670	0.536 – 0.804	1.88	1.51 – 2.26	4.40	3.52 – 5.28
IFCC 2002 (UV without P5P) (4) (5)	U/L	40.3	32.3 – 48.4	109	87.2 – 131	250	200 – 300	µmol/L/sec	0.673	0.539 – 0.808	1.82	1.46 – 2.18	4.18	3.34 – 5.02
Pointe Scientific, Inc. (4)	U/L	38.0	29.0 – 47.0	102	78.0 – 126	227	175 – 279	µmol/L/sec	0.635	0.484 – 0.785	1.70	1.30 – 2.10	3.79	2.92 – 4.66
Sekisui (Genzyme) Diagnostics (UV without P5P) (4)	U/L	49.0	39.0 – 59.0	136	109 – 163	315	252 – 378	µmol/L/sec	0.818	0.651 – 0.985	2.27	1.82 – 2.72	5.26	4.21 – 6.31
Synermed IR500-II (IFCC) (4)	U/L	34.8	27.9 – 41.7	107	85.7 – 128	259	207 – 311	µmol/L/sec	0.581	0.466 – 0.696	1.79	1.43 – 2.14	4.33	3.46 – 5.19
Teco Diagnostics TC-Matrix (Optimized Tris Liquid) (4)	U/L	41.2	30.9 – 51.5	110	82.1 – 137	246	184 – 307	µmol/L/sec	0.688	0.516 – 0.861	1.83	1.37 – 2.29	4.10	3.08 – 5.13
BILIRUBIN, DIRECT														
Diazotization / DPD / Jendrassik Grof (5)	mg/dL	0.277	0.222 – 0.332	1.31	1.05 – 1.57	2.41	1.93 – 2.89	µmol/L	4.74	3.79 – 5.68	22.4	17.9 – 26.9	41.2	33.0 – 49.5
Pointe Scientific, Inc. - Diazo	mg/dL	0.300	0.100 – 0.500	1.50	1.20 – 1.80	2.80	2.30 – 3.30	µmol/L	5.13	1.71 – 8.55	25.7	20.5 – 30.8	47.9	39.3 – 56.4
Sekisui (Genzyme) Diagnostics	mg/dL	0.320	0.100 – 0.540	1.40	0.560 – 2.24	2.44	0.980 – 3.90	µmol/L	5.47	1.71 – 9.23	23.9	9.58 – 38.3	41.7	16.8 – 66.7
Synermed IR500-II (Cholecyanin)	mg/dL	0.214	0.171 – 0.257	0.983	0.771 – 1.15	1.63	1.31 – 1.95	µmol/L	3.66	2.92 – 4.39	16.8	13.2 – 19.7	27.9	22.4 – 33.3
Teco Diagnostics TC-Matrix (Diazotization)	mg/dL	0.200	0.150 – 0.250	0.950	0.700 – 1.20	1.90	1.40 – 2.30	µmol/L	3.42	2.57 – 4.28	16.2	12.0 – 20.5	32.5	23.9 – 39.3
WAKO - L-Type, Hitachi 912	mg/dL	0.310	0.240 – 0.380	1.35	1.05 – 1.65	2.54	1.98 – 3.10	µmol/L	5.30	4.10 – 6.50	23.1	18.0 – 28.2	43.4	33.9 – 53.0
BILIRUBIN, TOTAL														
DPD (5)	mg/dL	0.558	0.446 – 0.669	2.96	2.37 – 3.55	6.84	5.47 – 8.20	µmol/L	9.54	7.63 – 11.4	50.6	40.5 – 60.7	117	93.5 – 140
Jendrassik Grof (5)	mg/dL	0.852	0.681 – 1.02	3.38	2.71 – 4.06	7.53	6.02 – 9.03	µmol/L	14.6	11.6 – 17.5	57.8	46.3 – 69.4	129	103 – 154
Pointe Scientific, Inc.	mg/dL	0.600	0.100 – 1.10	3.90	2.80 – 5.00	9.90	7.30 – 12.5	µmol/L	10.3	1.71 – 18.8	66.7	47.9 – 85.5	169	125 – 214
Sekisui (Genzyme) Diagnostics	mg/dL	0.600	0.400 – 0.800	3.10	2.50 – 3.70	7.20	5.80 – 8.60	µmol/L	10.3	6.84 – 13.7	53.0	42.8 – 63.3	123	99.2 – 147
Synermed IR500-II	mg/dL	0.662	0.530 – 0.794	3.07	2.46 – 3.68	6.91	5.53 – 8.29	µmol/L	11.3	9.06 – 13.6	52.5	42.1 – 62.9	118	94.6 – 142
Teco Diagnostics TC-Matrix (Sulphanilic acid, DMSO)	mg/dL	0.635	0.480 – 0.790	3.70	2.80 – 4.60	9.20	6.90 – 11.5	µmol/L	10.9	8.21 – 13.5	63.3	47.9 – 78.7	157	118 – 197
WAKO - L-Type, Hitachi 912	mg/dL	0.570	0.440 – 0.700	2.92	2.28 – 3.56	6.85	5.34 – 8.36	µmol/L	9.75	7.52 – 12.0	49.9	39.0 – 60.9	117	91.3 – 143
CALCIUM, TOTAL														
Flame Photometry	mg/dL	6.24	5.62 – 6.87	9.73	8.76 – 10.7	12.4	11.2 – 13.6	mmol/L	1.56	1.40 – 1.72	2.43	2.19 – 2.68	3.10	2.79 – 3.41
O-cresolphthalein complexone (5)	mg/dL	5.94	5.35 – 6.54	9.93	8.93 – 10.9	13.2	11.9 – 14.5	mmol/L	1.49	1.34 – 1.63	2.48	2.23 – 2.73	3.29	2.96 – 3.62
Pointe Scientific, Inc. - Cresolphthalein Complexone	mg/dL	5.80	5.20 – 6.40	10.2	9.20 – 11.2	13.4	12.0 – 14.8	mmol/L	1.45	1.30 – 1.60	2.55	2.30 – 2.80	3.35	3.00 – 3.70
Sekisui (Genzyme) Diagnostics (Arsenazo III)	mg/dL	6.60	5.90 – 7.30	10.5	9.40 – 11.6	13.6	12.2 – 15.0	mmol/L	1.65	1.48 – 1.83	2.63	2.35 – 2.90	3.40	3.05 – 3.75
Sekisui (Genzyme) Diagnostics (Chlorophosphonazo III)	mg/dL	6.40	5.80 – 7.00	10.6	9.50 – 11.7	14.2	12.8 – >15.0	mmol/L	1.60	1.45 – 1.75	2.65	2.38 – 2.93	3.55	3.20 – >3.75
Synermed IR500-II (Arsenazo III)	mg/dL	6.60	5.29 – 7.91	11.1	8.89 – 13.3	14.1	11.3 – 16.9	mmol/L	1.65	1.32 – 1.98	2.78	2.22 – 3.33	3.53	2.83 – 4.23
Teco Diagnostics TC-Matrix (o-cresolphthalein complexone)	mg/dL	6.40	4.81 – 8.02	10.9	8.20 – 13.6	14.2	10.6 – 17.7	mmol/L	1.60	1.20 – 2.01	2.72	2.05 – 3.40	3.55	2.65 – 4.43
CARBAMAZEPINE														
Syva EMIT 2000	µg/mL	3.95	3.16 – 4.74	9.32	7.45 – 11.2	14.5	11.6 – 17.4	µmol/L	16.7	13.4 – 20.0	39.4	31.5 – 47.3	61.3	49.1 – 73.6
CARBON DIOXIDE (CO2)														
Pointe Scientific, Inc.	mEq/L	19.0	12.0 – 26.0	27.0	20.0 – 34.0	35.0	27.0 – 43.0	mmol/L	19.0	12.0 – 26.0	27.0	20.0 – 34.0	35.0	27.0 – 43.0
Sekisui (Genzyme) Diagnostics	mEq/L	13.0	10.0 – 16.0	18.0	14.0 – 22.0	24.0	19.0 – 29.0	mmol/L	13.0	10.0 – 16.0	18.0	14.0 – 22.0	24.0	19.0 – 29.0
Synermed IR500-II	mEq/L	13.4	10.7 – 16.1	18.0	14.4 – 21.6	24.5	19.6 – 29.4	mmol/L	13.4	10.7 – 16.1	18.0	14.4 – 21.6	24.5	19.6 – 29.4
Teco Diagnostics TC-Matrix (Enzymatic, Modified Forrester Powder)	mEq/L	9.70	7.30 – 12.2	13.3	10.0 – 16.7	17.3	12.9 – 21.6	mmol/L	9.70	7.30 – 12.2	13.3	10.0 – 16.7	17.3	12.9 – 21.6
CHLORIDE														
Pointe Scientific, Inc.	mEq/L	88.0	80.0 – 96.0	121	109 – 133	136	112 – 160	mmol/L	88.0	80.0 – 96.0	121	109 – 133	136	112 – 160
Synermed IR500-II	mEq/L	73.6	58.9 – 88.3	97.0	77.8 – 116	120	96.1 – 144	mmol/L	73.6	58.9 – 88.3	97.0	77.8 – 116	120	

		Level 1 - 45631		Level 2 - 45632		Level 3 - 45633			Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
	Units	Mean	Range	Mean	Range	Mean	Range	SI	Mean	Range	Mean	Range	Mean	Range
CHOLESTEROL, HIGH DENSITY LIPOPROTEIN (HDL)														
Pointe Scientific, Inc.	mg/dL	32.0	23.0 – 41.0	60.0	44.0 – 76.0	100	77.0 – 123	mmol/L	0.829	0.596 – 1.06	1.55	1.14 – 1.97	2.59	1.99 – 3.19
Synermed IR500-II	mg/dL	26.0	20.8 – 31.2	40.1	32.1 – 48.1	73.6	58.9 – 88.3	mmol/L	0.673	0.539 – 0.808	1.04	0.831 – 1.25	1.91	1.53 – 2.29
WAKO - HDL-C, L-Type, Hitachi 912	mg/dL	29.5	23.6 – 35.4	52.8	42.2 – 63.4	83.9	67.1 – 101	mmol/L	0.764	0.611 – 0.917	1.37	1.09 – 1.64	2.17	1.74 – 2.62
CHOLESTEROL, LOW DENSITY LIPOPROTEIN (LDL)														
Pointe Scientific, Inc.	mg/dL	58.0	47.0 – 69.0	77.0	62.0 – 92.0	122	96.0 – 148	mmol/L	1.50	1.22 – 1.79	1.99	1.61 – 2.38	3.16	2.49 – 3.83
Synermed IR500-II	mg/dL	50.3	40.3 – 60.3	94.3	75.5 – 113	135	108 – 162	mmol/L	1.30	1.04 – 1.56	2.44	1.96 – 2.93	3.50	2.80 – 4.20
WAKO - LDL-C, L-Type, Hitachi 912	mg/dL	69.3	55.4 – 83.2	100	80.0 – 120	141	113 – 169	mmol/L	1.79	1.43 – 2.15	2.59	2.07 – 3.11	3.65	2.93 – 4.38
CHOLESTEROL, TOTAL														
CHOD / PAP (5)	mg/dL	107	85.9 – 129	173	139 – 208	268	215 – 322	mmol/L	2.78	2.23 – 3.34	4.49	3.59 – 5.39	6.95	5.56 – 8.34
Pointe Scientific, Inc.	mg/dL	119	102 – 136	192	165 – 219	299	258 – 340	mmol/L	3.08	2.64 – 3.52	4.97	4.27 – 5.67	7.74	6.68 – 8.81
Sekisui (Genzyme) Diagnostics	mg/dL	106	90.0 – 122	173	147 – 199	268	228 – 308	mmol/L	2.75	2.33 – 3.16	4.48	3.81 – 5.15	6.94	5.91 – 7.98
Synermed IR500-II	mg/dL	101	80.9 – 121	170	136 – 204	264	211 – 317	mmol/L	2.62	2.10 – 3.13	4.40	3.52 – 5.28	6.84	5.46 – 8.21
Teco Diagnostics TC-Matrix (Enzymatic Liquid)	mg/dL	107	80.5 – 134	169	127 – 211	256	192 – 320	mmol/L	2.78	2.08 – 3.47	4.38	3.28 – 5.47	6.62	4.97 – 8.28
CHOLINESTERASE (1)														
Butyrylthiocholine (4) (5)	U/L	4625	3700 – 5550	6556	5245 – 7867	8351	6681 – 10021	µmol/L/sec	77.2	61.8 – 92.7	109	87.6 – 131	139	112 – 167
COPPER (1)														
Atomic Absorption	µg/dL	74.8	59.8 – 89.8	91.0	72.8 – 109	122	97.6 – 146	µmol/L	11.7	9.39 – 14.1	14.3	11.4 – 17.1	19.1	15.3 – 23.0
CORTISOL														
Tosoh ST AIA-PACK	µg/dL	7.50	5.20 – 9.70	15.0	10.5 – 19.4	31.2	21.9 – 40.6	nmol/L	207	144 – 268	414	290 – 535	861	604 – 1121
CREATINE KINASE (CK)														
IFCC 2002 (4) (5)	U/L	94.2	75.3 – 113	288	231 – 346	698	558 – 837	µmol/L/sec	1.57	1.26 – 1.89	4.81	3.85 – 5.78	11.7	9.32 – 14.0
Pointe Scientific, Inc. (4)	U/L	73.0	59.0 – 87.0	230	184 – 274	561	449 – 673	µmol/L/sec	1.22	0.985 – 1.45	3.84	3.07 – 4.58	9.37	7.50 – 11.2
Sekisui (Genzyme) Diagnostics (4)	U/L	108	86.0 – 130	327	262 – 392	798	638 – 958	µmol/L/sec	1.80	1.44 – 2.17	5.46	4.38 – 6.55	13.3	10.7 – 16.0
Synermed IR500-II (4)	U/L	93.9	75.2 – 113	280	224 – 336	667	534 – 800	µmol/L/sec	1.57	1.26 – 1.89	4.68	3.74 – 5.61	11.1	8.92 – 13.4
CREATININE														
Alkaline picrate / Jaffe (5)	mg/dL	0.617	0.494 – 0.741	1.92	1.54 – 2.30	6.34	5.07 – 7.60	µmol/L	54.6	43.7 – 65.5	170	136 – 204	560	448 – 672
Enzymatic (5)	mg/dL	0.590	0.472 – 0.708	1.96	1.57 – 2.35	6.79	5.43 – 8.14	µmol/L	52.1	41.7 – 62.5	173	139 – 208	600	480 – 720
Pointe Scientific, Inc.	mg/dL	0.700	0.500 – 0.900	1.80	1.40 – 2.20	5.80	4.60 – 7.00	µmol/L	61.9	44.2 – 79.6	159	124 – 194	513	407 – 619
Sekisui (Genzyme) Diagnostics (Alkaline picrate-kinetic)	mg/dL	0.700	0.600 – 0.800	2.00	1.60 – 2.40	6.20	5.00 – 7.40	µmol/L	61.9	53.0 – 70.7	177	141 – 212	548	442 – 654
Sekisui (Genzyme) Diagnostics (Enzymatic)	mg/dL	0.570	0.370 – 0.770	2.04	1.63 – 2.45	7.28	5.82 – 8.74	µmol/L	50.4	32.7 – 68.1	180	144 – 217	644	514 – 773
Sentinel Diagnostics (Enzymatic)	mg/dL	0.500	0.400 – 0.600	1.90	1.52 – 2.28	6.60	5.28 – 7.92	µmol/L	44.2	35.4 – 53.0	168	134 – 202	583	467 – 700
Synermed IR500-II	mg/dL	0.793	0.635 – 0.951	2.26	1.81 – 2.71	6.58	5.27 – 7.89	µmol/L	70.1	56.1 – 84.1	200	160 – 240	582	466 – 697
Teco Diagnostics TC-Matrix (Jaffe Kinetic)	mg/dL	0.800	0.600 – 1.00	2.00	1.50 – 2.50	6.10	4.60 – 7.60	µmol/L	70.7	53.0 – 88.4	177	133 – 221	539	407 – 672
WAKO - CREA M, Hitachi 912	mg/dL	▲		▲		▲		µmol/L	▲		▲		▲	
DIGOXIN														
Syva EMIT 2000	ng/mL	0.536	0.354 – 0.719	1.73	1.38 – 2.07	3.12	2.50 – 3.74	nmol/L	0.686	0.453 – 0.920	2.21	1.77 – 2.66	3.99	3.19 – 4.79
ETHANOL														
Syva EMIT 2000	mg/dL	20.3	16.2 – 24.3	74.4	59.5 – 89.3	194	156 – 233	mmol/L	4.40	3.52 – 5.28	16.1	12.9 – 19.4	42.2	33.7 – 50.6
FERRITIN (1)														
Tosoh ST AIA-PACK	ng/mL	31.2	25.0 – 37.5	56.0	44.8 – 67.2	52.9	42.3 – 63.5	µg/L	31.2	25.0 – 37.5	56.0	44.8 – 67.2	52.9	42.3 – 63.5
GAMMA GLUTAMYLTRANSFERASE (GGT)														
IFCC 2002 (Szasz) (4) (5)	U/L	29.5	23.6 – 35.3	90.3	72.2 – 108	141	113 – 169	µmol/L/sec	0.492	0.394 – 0.590	1.51	1.21 – 1.81	2.35	1.88 – 2.82
Pointe Scientific, Inc. (4)	U/L	18.0	14.0 – 22.0	59.0	46.0 – 72.0	90.0	70.0 – 110	µmol/L/sec	0.301	0.234 – 0.367	0.985	0.768 – 1.20	1.50	1.17 – 1.84
Sekisui (Genzyme) Diagnostics (4)	U/L	27.0	22.0 – 32.0	84.0	67.0 – 101	132	106 – 158	µmol/L/sec	0.451	0.367 – 0.534	1.40	1.12 – 1.69	2.20	1.77 – 2.64
Synermed IR500-II (IFCC) (4)	U/L	30.4	24.3 – 36.5	92.3	73.9 – 111	139	111 – 167	µmol/L/sec	0.508	0.406 – 0.610	1.54	1.23 – 1.85	2.32	1.85 – 2.79
Teco Diagnostics TC-Matrix (Kinetic Liquid) (4)	U/L	25.4	19.0 – 31.7	66.7	50.1 – 83.4	99.8	74.8 – 125	µmol/L/sec	0.424	0.317 – 0.529	1.11	0.837 – 1.39	1.67	1.25 – 2.08
GENTAMICIN														
Syva EMIT 2000	µg/mL	2.02	1.62 – 2.42	5.66	4.53 – 6.79	>10.0		µmol/L	4.22	3.38 – 5.06	11.8	9.47 – 14.2	>20.9	
GLUCOSE														
Hexokinase (5)	mg/dL	60.9	48.7 – 73.1	121	96.6 – 145	364	291 – 436	mmol/L	3.38	2.70 – 4.06	6.70	5.36 – 8.04	20.2	16.1 – 24.2
Pointe Scientific, Inc. - Hexokinase	mg/dL	66.0	56.0 – 76.0	131	110 – 152	401	330 – 472	mmol/L	3.66	3.11 – 4.22	7.27	6.11 – 8.44	22.3	18.3 – 26.2
Sekisui (Genzyme) Diagnostics	mg/dL	66.0	59.0 – 73.0	131	118 – 144	400	360 – 440	mmol/L	3.66	3.27 – 4.05	7.27	6.55 – 7.99	22.2	20.0 – 24.4
Synermed IR500-II	mg/dL	61.5	49.2 – 73.8	120	96.1 – 144	367	294 – 440	mmol/L	3.41	2.73 – 4.10	6.66	5.33 – 7.99	20.4	16.3 – 24.4
Teco Diagnostics TC-Matrix (Glucose Oxidase Liquid)	mg/dL	59.1	44.3 – 73.8	117	88.0 – 147	349	262 – 437	mmol/L	3.28	2.46 – 4.10	6.51	4.88 – 8.14	19.4	14.5 – 24.2
Teco Diagnostics TC-Matrix (Hexokinase Liquid)	mg/dL	59.8	44.8 – 74.7	113	84.8 – 141	338	253 – 422	mmol/L	3.32	2.49 – 4.15	6.28	4.71 – 7.85	18.8	14.1 – 23.4
HAPTOGLOBIN (1)														
Immunoturbidimetric (5)	mg/dL	81.1	64.9 – 97.3	108	86.3 – 129	128	103 – 154	g/L	0.811	0.649 – 0.973	1.08	0.863 – 1.29	1.28	1.03 – 1.54
IMMUNOGLOBULIN A (IgA) (1)														
Immunoturbidimetric (5)	mg/dL	120	95.8 – 144	155	124 – 187	194	155 – 233	g/L	1.20	0.958 – 1.44	1.55	1.24 – 1.87	1.94	1.55 – 2.33
IMMUNOGLOBULIN G (IgG) (1)														
Immunoturbidimetric (5)	mg/dL	592	473 – 710	742	594 – 890	924	740 – 1109	g/L	5.92	4.73 – 7.10	7.42	5.94 – 8.90	9.24	7.40 – 11.1
IMMUNOGLOBULIN M (IgM) (1)														
Immunoturbidimetric (5)	mg/dL	58.9	47.1 – 70.6	69.9	55.9 – 83.8	92.2	73.8 – 111	g/L	0.589	0.471 – 0.706	0.699	0.559 – 0.838	0.922	0.738 – 1.11
IRON														
Ferrozine (5)	µg/dL	73.4	58.7 – 88.1	157	126 – 188	240	192 – 288	µmol/L	13.1	10.5 – 15.8	28.1	22.5 – 33.7	43.0	34.4 – 51.6
Pointe Scientific, Inc. - Ferrozine	µg/dL	74.0	64.0 – 84.0	160	133 – 187	247	214 – 280	µmol/L	13.2	11.5 – 15.0	28.6	23.8 – 33.5	44.2	38.3 – 50.1
Sekisui (Genzyme) Diagnostics	µg/dL	70.0	59.0 – 81.0	148	126 – 170	224	190 – 258	µmol/L	12.5	10.6 – 14.5	26.5	22.6 – 30.4	40.1	34.0 – 46.2
Synermed IR500-II	µg/dL	78.1	62.5 – 93.7	161	129 – 193	234	187 – 280	µmol/L	14.0	11.2 – 16.8	28.8	23.1 – 34.5	41.9	33.5 – 50.1
Teco Diagnostics TC-Matrix (Ferrozine)	µg/dL	134	100 – 167	187	140 – 234	246	185 – 308	µmol/L	23.9	17.9 – 29.9	33.5	25.1 – 41.9	44.1	33.0 – 55.1
IRON-BINDING CAPACITY, TOTAL (TIBC) (1)														
Pointe Scientific, Inc. (Direct TIBC)	µg/dL	252	201 – 303	336	311 – 361	394	335 – 453	µmol/L	45.1	36.0 – 54.2	60.1	55.7 – 64.6	70.5	60.0 – 81.1
Sekisui (Genzyme) Diagnostics	µg/dL	233	186 – 280	322	274 – 370	412	350 – 474	µmol/L	41.7	33.3 – 50.1	57.6	49.0 – 66.2	73.7	62.7 – 84.8
IRON-BINDING CAPACITY, UNSATURATED (UIBC) (1)														
Sekisui (Genzyme) Diagnostics	µg/dL	163	130 – 196	174	139 – 209	188	150 – 226	µmol/L	29.2	23.3 – 35.1	31.1	24.9 – 37.4	33.7	26.9 – 40.5
Synermed IR500-II (Ferene)	µg/dL	159	127 – 191	192	154 – 230	229	183 – 275	µmol/L	28.5	22.7 – 34.2	34.4	27.6 – 41.2	41.0	32.8 – 49.2
LACTATE (LACTIC ACID)														
Enzymatic (5)	mg/dL	15.0	12.0 – 18.0	32.3	25.9 – 38.8	55.5	44.4 – 66.6	mmol/L	1.67	1.33 – 2.00	3.59	2.87 – 4.30	6.16	4.93 – 7.39

	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range
LACTATE DEHYDROGENASE (LDH)														
IFCC 2002 (Enzymes) (4) (5)	U/L	114	91.5 – 137	168	134 – 201	383	306 – 460	µmol/L/sec	1.91	1.53 – 2.29	2.80	2.24 – 3.36	6.40	5.12 – 7.68
Pointe Scientific, Inc. - LDH-L (Modified Wacker / Tris) (4)	U/L	92.0	76.0 – 108	136	111 – 161	309	254 – 364	µmol/L/sec	1.54	1.27 – 1.80	2.27	1.85 – 2.69	5.16	4.24 – 6.08
Sekisui (Genzyme) Diagnostics (4)	U/L	116	93.0 – 139	170	144 – 196	393	334 – 452	µmol/L/sec	1.94	1.55 – 2.32	2.84	2.40 – 3.27	6.56	5.58 – 7.55
Synermed IR500-II (4)	U/L	131	105 – 157	184	147 – 221	380	304 – 456	µmol/L/sec	2.19	1.75 – 2.62	3.07	2.45 – 3.69	6.35	5.08 – 7.62
Teco Diagnostics TC-Matrix (Modified Wacker Tris, Kinetic) (Liquid) (4)	U/L	106	79.2 – 132	160	120 – 200	377	283 – 471	µmol/L/sec	1.76	1.32 – 2.20	2.68	2.01 – 3.35	6.30	4.72 – 7.87
LIPASE														
Colorimetric (4) (5)	U/L	111	88.7 – 133	205	164 – 246	601	481 – 722	µmol/L/sec	1.85	1.48 – 2.22	3.42	2.74 – 4.11	10.0	8.04 – 12.1
Enzymatic, colorimetric (4) (5)	U/L	24.8	19.9 – 29.8	47.9	38.3 – 57.4	145	116 – 174	µmol/L/sec	0.415	0.332 – 0.498	0.799	0.640 – 0.959	2.42	1.94 – 2.91
LITHIUM														
Atomic Absorption	mEq/L	0.580	0.522 – 0.638	1.36	1.22 – 1.49	2.02	1.82 – 2.22	mmol/L	0.580	0.522 – 0.638	1.36	1.22 – 1.49	2.02	1.82 – 2.22
Flame Photometry	mEq/L	0.564	0.508 – 0.621	1.38	1.24 – 1.52	2.06	1.85 – 2.26	mmol/L	0.564	0.508 – 0.621	1.38	1.24 – 1.52	2.06	1.85 – 2.26
MAGNESIUM														
Atomic Absorption	mEq/L	0.879	0.747 – 1.01	2.11	1.80 – 2.43	3.25	2.77 – 3.74	mmol/L	0.439	0.373 – 0.505	1.06	0.898 – 1.21	1.63	1.38 – 1.87
Pointe Scientific, Inc. - Calmagite Dye	mg/dL	1.20	1.00 – 1.40	2.70	2.30 – 3.10	4.20	3.50 – 4.90	mmol/L	0.494	0.411 – 0.576	1.11	0.946 – 1.28	1.73	1.44 – 2.02
Sekisui (Genzyme) Diagnostics (Xylidyl blue)	mg/dL	1.10	1.00 – 1.20	2.80	2.50 – 3.10	4.30	3.90 – 4.70	mmol/L	0.453	0.411 – 0.494	1.15	1.03 – 1.28	1.77	1.60 – 1.93
Synermed IR500-II	mg/dL	1.12	0.897 – 1.34	2.65	2.12 – 3.18	4.14	3.32 – 4.96	mmol/L	0.461	0.369 – 0.551	1.09	0.872 – 1.31	1.70	1.37 – 2.04
Teco Diagnostics TC-Matrix (Calmagite)	mg/dL	1.40	1.04 – 1.74	3.00	2.30 – 3.80	4.40	3.30 – 5.50	mmol/L	0.576	0.428 – 0.716	1.23	0.946 – 1.56	1.81	1.36 – 2.26
OSMOLALITY														
Freezing Point Depression	mOsm/kg	299	239 – 359	408	327 – 490	544	435 – 652	mmol/kg	299	239 – 359	408	327 – 490	544	435 – 652
PHENOBARBITAL														
Syva EMIT 2000	µg/mL	8.69	6.95 – 10.4	30.1	24.1 – 36.1	60.4	48.3 – 72.5	µmol/L	37.5	30.0 – 44.9	130	104 – 156	260	208 – 313
PHENYTOIN														
Syva EMIT 2000	µg/mL	4.14	3.31 – 4.96	10.5	8.37 – 12.6	19.8	15.8 – 23.7	µmol/L	16.4	13.1 – 19.7	41.4	33.1 – 49.7	78.4	62.7 – 94.0
PHOSPHORUS														
Phosphomolybdate-UV (5)	mg/dL	1.85	1.67 – 2.04	4.06	3.65 – 4.47	7.22	6.50 – 7.95	mmol/L	0.599	0.539 – 0.658	1.31	1.18 – 1.44	2.33	2.10 – 2.57
Pointe Scientific, Inc. - Phosphomolybdate	mg/dL	1.70	1.40 – 2.00	3.90	3.10 – 4.70	7.10	5.80 – 8.40	mmol/L	0.549	0.452 – 0.646	1.26	1.00 – 1.52	2.29	1.87 – 2.71
Sekisui (Genzyme) Diagnostics	mg/dL	1.90	1.60 – 2.20	4.10	3.70 – 4.50	7.40	6.70 – 8.10	mmol/L	0.614	0.517 – 0.711	1.32	1.20 – 1.45	2.39	2.16 – 2.62
Synermed IR500-II	mg/dL	1.93	1.55 – 2.31	4.18	3.35 – 5.01	7.33	5.87 – 8.79	mmol/L	0.623	0.501 – 0.746	1.35	1.08 – 1.62	2.37	1.90 – 2.84
Teco Diagnostics TC-Matrix (Molybdenum UV)	mg/dL	1.50	1.15 – 1.92	3.50	2.60 – 4.40	6.20	4.70 – 7.80	mmol/L	0.485	0.371 – 0.620	1.13	0.840 – 1.42	2.00	1.52 – 2.52
POTASSIUM														
Flame Photometry	mEq/L	2.44	2.19 – 2.68	3.90	3.51 – 4.29	7.48	6.73 – 8.23	mmol/L	2.44	2.19 – 2.68	3.90	3.51 – 4.29	7.48	6.73 – 8.23
Pointe Scientific, Inc.	mEq/L	2.50	2.30 – 2.70	4.40	4.10 – 4.70	7.60	6.90 – 8.30	mmol/L	2.50	2.30 – 2.70	4.40	4.10 – 4.70	7.60	6.90 – 8.30
Synermed IR500-II	mEq/L	2.41	1.93 – 2.89	3.86	3.09 – 4.63	7.45	5.97 – 8.93	mmol/L	2.41	1.93 – 2.89	3.86	3.09 – 4.63	7.45	5.97 – 8.93
Teco Diagnostics TC-Matrix (Turbidimetric)	mEq/L	1.70	1.25 – 2.08	3.50	2.60 – 4.40	7.00	5.30 – 8.80	mmol/L	1.70	1.25 – 2.08	3.50	2.60 – 4.40	7.00	5.30 – 8.80
PROTEIN, TOTAL														
Biuret, no serum blank, end point (5)	g/dL	4.27	3.42 – 5.13	5.55	4.44 – 6.66	7.12	5.70 – 8.55	g/L	42.7	34.2 – 51.3	55.5	44.4 – 66.6	71.2	57.0 – 85.5
Biuret, serum blank, end point (5)	g/dL	4.30	3.44 – 5.16	5.49	4.39 – 6.59	7.01	5.61 – 8.41	g/L	43.0	34.4 – 51.6	54.9	43.9 – 65.9	70.1	56.1 – 84.1
Pointe Scientific, Inc. - Biuret	g/dL	4.30	3.80 – 4.80	5.70	5.10 – 6.30	7.50	6.70 – 8.30	g/L	43.0	38.0 – 48.0	57.0	51.0 – 63.0	75.0	67.0 – 83.0
Sekisui (Genzyme) Diagnostics	g/dL	4.50	4.00 – 5.00	5.80	5.20 – 6.40	7.50	6.70 – 8.30	g/L	45.0	40.0 – 50.0	58.0	52.0 – 64.0	75.0	67.0 – 83.0
Synermed IR500-II	g/dL	4.09	3.28 – 4.90	5.34	4.28 – 6.40	6.93	5.55 – 8.31	g/L	40.9	32.8 – 49.0	53.4	42.8 – 64.0	69.3	55.5 – 83.1
Teco Diagnostics TC-Matrix (Biuret)	g/dL	4.70	3.54 – 5.91	6.00	4.50 – 7.50	7.80	5.90 – 9.80	g/L	47.0	35.4 – 59.1	60.0	45.0 – 75.0	78.0	59.0 – 98.0
SODIUM														
Flame Photometry	mEq/L	113	101 – 124	139	125 – 153	159	143 – 174	mmol/L	113	101 – 124	139	125 – 153	159	143 – 174
Pointe Scientific, Inc.	mEq/L	116	109 – 123	150	141 – 159	164	154 – 174	mmol/L	116	109 – 123	150	141 – 159	164	154 – 174
Synermed IR500-II	mEq/L	112	89.7 – 134	137	110 – 164	156	125 – 187	mmol/L	112	89.7 – 134	137	110 – 164	156	125 – 187
T3 TOTAL														
Tosoh ST AIA-PACK	ng/mL	0.730	0.480 – 0.980	1.81	1.29 – 2.32	2.70	1.90 – 3.40	nmol/L	1.12	0.739 – 1.51	2.79	1.99 – 3.57	4.16	2.93 – 5.24
T4 FREE														
Tosoh ST AIA-PACK	ng/dL	1.06	0.850 – 1.28	1.37	1.10 – 1.65	2.70	2.20 – 3.30	pmol/L	13.7	11.0 – 16.5	17.7	14.2 – 21.3	34.8	28.4 – 42.6
T4 TOTAL														
Tosoh ST AIA-PACK	µg/dL	5.10	4.10 – 6.10	7.00	5.60 – 8.40	13.0	10.4 – 15.6	nmol/L	65.8	52.9 – 78.7	90.3	72.2 – 108	168	134 – 201
THEOPHYLLINE														
Syva EMIT 2000	µg/mL	4.56	3.64 – 5.47	15.1	12.1 – 18.1	25.4	18.8 – 32.0	µmol/L	25.3	20.2 – 30.3	83.9	67.1 – 101	141	104 – 178
THYROID STIMULATING HORMONE (TSH)														
Tosoh AIA-PACK TSH 3rd-Gen	µIU/mL	1.40	1.12 – 1.68	5.10	4.00 – 6.10	14.4	11.5 – 17.2	mIU/L	1.40	1.12 – 1.68	5.10	4.00 – 6.10	14.4	11.5 – 17.2
Tosoh ST AIA-PACK	µIU/mL	1.37	1.10 – 1.65	4.90	3.90 – 5.90	13.8	11.0 – 16.6	mIU/L	1.37	1.10 – 1.65	4.90	3.90 – 5.90	13.8	11.0 – 16.6
TRANSFERRIN (1)														
Immunoturbidimetric (5)	mg/dL	170	136 – 204	212	169 – 254	285	228 – 342	g/L	1.70	1.36 – 2.04	2.12	1.69 – 2.54	2.85	2.28 – 3.42
TRIGLYCERIDES														
Enzymatic / GPO (5)	mg/dL	94.9	75.9 – 114	136	109 – 163	209	167 – 251	mmol/L	1.07	0.858 – 1.29	1.53	1.23 – 1.84	2.36	1.89 – 2.83
Pointe Scientific, Inc.	mg/dL	88.0	73.0 – 103	121	99.0 – 143	184	151 – 217	mmol/L	0.994	0.825 – 1.16	1.37	1.12 – 1.62	2.08	1.71 – 2.45
Sekisui (Genzyme) Diagnostics	mg/dL	100	85.0 – 115	141	120 – 162	210	178 – 242	mmol/L	1.13	0.961 – 1.30	1.59	1.36 – 1.83	2.37	2.01 – 2.73
Synermed IR500-II	mg/dL	94.9	76.0 – 114	124	99.3 – 149	196	157 – 235	mmol/L	1.07	0.859 – 1.29	1.40	1.12 – 1.68	2.21	1.77 – 2.66
Teco Diagnostics TC-Matrix (Enzymatic GPO Liquid)	mg/dL	100	75.3 – 126	136	102 – 169	202	151 – 252	mmol/L	1.13	0.851 – 1.42	1.53	1.15 – 1.91	2.28	1.71 – 2.85
UREA NITROGEN (BUN) (6)														
Pointe Scientific, Inc. - Urease / GLDH	mg/dL	16.0	12.0 – 20.0	42.0	33.0 – 51.0	77.0	61.0 – 93.0	mmol/L	5.71	4.28 – 7.14	15.0	11.8 – 18.2	27.5	21.8 – 33.2
Sekisui (Genzyme) Diagnostics (Urease, colorimetric)	mg/dL	16.0	13.0 – 19.0	42.0	35.0 – 49.0	72.0	60.0 – 84.0	mmol/L	5.71	4.64 – 6.78	15.0	12.5 – 17.5	25.7	21.4 – 30.0
Synermed IR500-II	mg/dL	15.2	12.2 – 18.2	37.7	30.2 – 45.2	64.3	51.5 – 77.1	mmol/L	5.43	4.36 – 6.50	13.5	10.8 – 16.1	23.0	18.4 – 27.5
Teco Diagnostics TC-Matrix (Urease, GLDH Liquid)	mg/dL	15.9	11.9 – 19.8	42.2	31.6 – 52.7	71.7	53.4 – 88.9	mmol/L	5.68	4.25 – 7.08	15.1	11.3 – 18.8	25.6	19.1 – 31.7
Urease (5)	mg/dL	15.2	12.2 – 18.2	40.2	32.2 – 48.3	68.9	55.1 – 82.7	mmol/L	5.43	4.34 – 6.51	14.4	11.5 – 17.2	24.6	19.7 – 29.5
URIC ACID														
Pointe Scientific, Inc. - Uricase	mg/dL	3.80	3.10 – 4.50	6.30	5.40 – 7.20	10.1	8.70 – 11.5	µmol/L	226	184 – 268	375	321 – 428	601	517 – 684
Sekisui (Genzyme) Diagnostics	mg/dL	3.00	2.70 – 3.30	5.30	4.80 – 5.80	10.0	9.00 – 11.0	µmol/L	178	161 – 196	315	286 – 345	595	535 – 654
Synermed IR500-II	mg/dL	2.46	1.97 – 2.95	5.27	4.22 – 6.32	11.0	8.81 – 13.2	µmol/L	146	117 – 175	313	251 – 376	654	524 – 785
Teco Diagnostics TC-Matrix (Uricase Liquid)	mg/dL	2.70	2.02 – 3.36	4.70	3.50 – 5.90	8.20	6.20 – 10.3	µmol/L	161	120 – 200	280	208 – 351	488	369 – 613
Uricase, colorimetric (5)	mg/dL	3.24	2.59 – 3.89	5.60	4.48 – 6.73	9.82	7.86 – 11.8	µmol/L	193	154 – 231	333	267 – 400	584	467 – 701
Uricase, UV (5)	mg/dL	3.33	2.67 – 4.00	5.69	4.55 – 6.83	9.96	7.97 – 12.0	µmol/L	198	159 – 238	339	271 – 406	592	474 – 711

	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range
VALPROIC ACID														
Syva EMIT 2000	µg/mL	29.0	23.2 – 34.8	68.6	54.9 – 82.3	115	91.8 – 138	µmol/L	201	161 – 241	475	380 – 570	795	636 – 954
ZINC														
Atomic Absorption	µg/dL	115	83.1 – 148	204	163 – 245	348	278 – 418	µmol/L	17.7	12.7 – 22.6	31.3	25.0 – 37.5	53.2	42.6 – 63.9
ICP / Mass Spec	µg/dL	99.0	42.6 – 155	202	129 – 274	319	220 – 417	µmol/L	15.1	6.51 – 23.8	30.9	19.7 – 42.0	48.8	33.6 – 63.9
WAKO / Hitachi	µg/dL	85.1	68.1 – 102	199	159 – 239	330	264 – 396	µmol/L	13.0	10.4 – 15.6	30.4	24.3 – 36.6	50.5	40.4 – 60.6

FOR REFERENCE USE ONLY

INSTRUMENT

Gerät // Appareil // Strumento // Instrumento // Instrumento // Instrument // Instrument

	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range
ABAXIS-PICCOLO														
Alanine Aminotransferase (ALT/SGPT) (4)	U/L	30.0	19.0 – 41.0	87.0	69.6 – 104	196	157 – 235	µmol/L/sec	0.501	0.317 – 0.685	1.45	1.16 – 1.74	3.27	2.62 – 3.92
Albumin (Bromcresol purple)	g/dL	2.81	2.25 – 3.37	3.47	2.78 – 4.16	4.32	3.46 – 5.18	g/L	28.1	22.5 – 33.7	34.7	27.8 – 41.6	43.2	34.6 – 51.8
Alkaline Phosphatase (ALP) (4)	U/L	29.0	16.0 – 42.0	174	139 – 209	344	275 – 413	µmol/L/sec	0.484	0.267 – 0.701	2.91	2.32 – 3.49	5.74	4.59 – 6.90
Amylase (4)	U/L	39.0	31.0 – 47.0	121	99.0 – 143	248	211 – 285	µmol/L/sec	0.651	0.518 – 0.785	2.02	1.65 – 2.39	4.14	3.52 – 4.76
Aspartate Aminotransferase (AST/SGOT) (4)	U/L	43.0	34.0 – 52.0	106	85.0 – 127	239	191 – 287	µmol/L/sec	0.718	0.568 – 0.868	1.77	1.42 – 2.12	3.99	3.19 – 4.79
Bilirubin, Direct	mg/dL	0.300	0.100 – 0.500	1.20	0.900 – 1.50	2.30	1.80 – 2.80	µmol/L	5.13	1.71 – 8.55	20.5	15.4 – 25.7	39.3	30.8 – 47.9
Bilirubin, Total	mg/dL	0.800	0.640 – 0.960	3.20	2.56 – 3.84	7.30	5.84 – 8.76	µmol/L	13.7	10.9 – 16.4	54.7	43.8 – 65.7	125	99.9 – 150
Calcium, Total	mg/dL	6.30	5.67 – 6.93	10.0	9.00 – 11.0	12.7	11.4 – 14.0	mmol/L	1.58	1.42 – 1.73	2.50	2.25 – 2.75	3.17	2.85 – 3.50
Carbon Dioxide (CO2)	mEq/L	14.0	10.0 – 18.0	21.0	16.0 – 26.0	28.0	22.0 – 34.0	mmol/L	14.0	10.0 – 18.0	21.0	16.0 – 26.0	28.0	22.0 – 34.0
Chloride	mEq/L	<80.0		99.0	89.1 – 109	119	107 – 131	mmol/L	<80.0		99.0	89.1 – 109	119	107 – 131
Cholesterol, HDL	mg/dL	24.0	17.0 – 31.0	49.0	41.0 – 57.0	>100		mmol/L	0.622	0.440 – 0.803	1.27	1.06 – 1.48	>2.59	
Cholesterol, Total	mg/dL	104	83.2 – 125	169	135 – 203	257	206 – 308	mmol/L	2.69	2.15 – 3.24	4.38	3.50 – 5.26	6.66	5.34 – 7.98
Creatine Kinase (CK) (4)	U/L	116	93.0 – 139	298	238 – 358	691	553 – 829	µmol/L/sec	1.94	1.55 – 2.32	4.98	3.97 – 5.98	11.5	9.24 – 13.8
Creatinine	mg/dL	0.600	<0.200 – 1.05	1.91	1.33 – 2.49	6.40	5.12 – 7.68	µmol/L	53.0	<17.7 – 92.8	169	118 – 220	566	453 – 679
Gamma Glutamyltransferase (GGT) (4)	U/L	27.0	22.0 – 32.0	82.0	65.6 – 98.4	126	101 – 151	µmol/L/sec	0.451	0.367 – 0.534	1.37	1.10 – 1.64	2.10	1.69 – 2.52
Glucose	mg/dL	67.0	53.6 – 80.4	125	100 – 150	363	290 – 436	mmol/L	3.72	2.97 – 4.46	6.94	5.55 – 8.33	20.1	16.1 – 24.2
Lactate Dehydrogenase (LDH) (4)	U/L	91.0	72.8 – 109	134	107 – 161	321	257 – 385	µmol/L/sec	1.52	1.22 – 1.82	2.24	1.79 – 2.69	5.36	4.29 – 6.43
Magnesium	mg/dL	1.00	0.850 – 1.15	2.50	2.13 – 2.88	4.20	3.57 – 4.83	mmol/L	0.411	0.350 – 0.473	1.03	0.876 – 1.18	1.73	1.47 – 1.99
Phosphorus	mg/dL	2.30	2.07 – 2.53	4.70	4.23 – 5.17	8.00	7.20 – 8.80	mmol/L	0.743	0.669 – 0.817	1.52	1.37 – 1.67	2.58	2.33 – 2.84
Potassium	mEq/L	2.30	1.70 – 2.90	4.10	3.60 – 4.60	7.50	6.80 – 8.20	mmol/L	2.30	1.70 – 2.90	4.10	3.60 – 4.60	7.50	6.80 – 8.20
Protein, Total	g/dL	4.50	3.90 – 5.10	5.60	5.00 – 6.20	7.00	6.40 – 7.60	g/L	45.0	39.0 – 51.0	56.0	50.0 – 62.0	70.0	64.0 – 76.0
Sodium	mEq/L	110	<110 – 117	135	128 – 142	161	153 – 169	mmol/L	110	<110 – 117	135	128 – 142	161	153 – 169
Triglycerides	mg/dL	99.0	79.2 – 119	142	114 – 170	229	183 – 275	mmol/L	1.12	0.895 – 1.34	1.60	1.29 – 1.92	2.59	2.07 – 3.11
Urea Nitrogen (BUN) (6)	mg/dL	14.7	11.8 – 17.6	38.0	30.4 – 45.6	72.0	57.6 – 86.4	mmol/L	5.25	4.21 – 6.28	13.6	10.9 – 16.3	25.7	20.6 – 30.8
Uric Acid	mg/dL	2.70	2.16 – 3.24	5.00	4.00 – 6.00	9.90	7.92 – 11.9	µmol/L	161	128 – 193	297	238 – 357	589	471 – 708
ABBOTT ARCHITECT cSYSTEMS														
Acetaminophen	µg/mL	13.5	10.8 – 16.2	43.9	35.1 – 52.7	140	112 – 168	µmol/L	89.0	71.2 – 107	290	232 – 348	928	742 – 1113
Acid Phosphatase (Alpha-Naphtyphosphate, Sentinel) (4)	U/L	\$		\$		\$		µmol/L/sec	\$		\$		\$	
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (IFCC 2002) (4)	U/L	24.4	19.5 – 29.3	100	80.2 – 120	242	193 – 290	µmol/L/sec	0.407	0.326 – 0.489	1.67	1.34 – 2.01	4.04	3.23 – 4.85
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (4)	U/L	28.6	22.9 – 34.3	96.2	77.0 – 115	221	177 – 265	µmol/L/sec	0.478	0.382 – 0.573	1.61	1.29 – 1.93	3.69	2.95 – 4.43
Albumin (Bromcresol green)	g/dL	2.60	2.08 – 3.12	3.38	2.70 – 4.06	4.31	3.45 – 5.17	g/L	26.0	20.8 – 31.2	33.8	27.0 – 40.6	43.1	34.5 – 51.7
Albumin (Bromcresol purple)	g/dL	2.49	1.99 – 2.99	3.18	2.54 – 3.81	4.04	3.23 – 4.85	g/L	24.9	19.9 – 29.9	31.7	25.4 – 38.1	40.4	32.3 – 48.5
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (4)	U/L	36.3	29.0 – 43.6	169	135 – 202	326	261 – 391	µmol/L/sec	0.606	0.485 – 0.727	2.81	2.25 – 3.38	5.45	4.36 – 6.54
Alpha-Hydroxybutyrate Dehydrogenase (αHBDH) (Standard method opt.) (1) (4)	U/L	\$		\$		\$		µmol/L/sec	\$		\$		\$	
Amylase (CNP-triose/CNPG3) (Enzymatic) (4)	U/L	46.1	36.9 – 55.3	149	119 – 179	320	256 – 384	µmol/L/sec	0.770	0.616 – 0.924	2.49	1.99 – 2.99	5.35	4.28 – 6.42
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (IFCC 2002) (4)	U/L	40.8	32.6 – 48.9	114	90.9 – 136	262	210 – 315	µmol/L/sec	0.681	0.545 – 0.817	1.90	1.52 – 2.28	4.38	3.51 – 5.26
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (4)	U/L	38.8	31.0 – 46.5	107	85.7 – 129	246	197 – 295	µmol/L/sec	0.647	0.518 – 0.777	1.79	1.43 – 2.15	4.11	3.29 – 4.93
Bilirubin, Direct (Diazotization)	mg/dL	0.323	0.259 – 0.388	1.55	1.24 – 1.86	2.71	2.17 – 3.25	µmol/L	5.53	4.42 – 6.64	26.5	21.2 – 31.9	46.3	37.1 – 55.6
Bilirubin, Neonatal	mg/dL	\$		\$		\$		µmol/L	\$		\$		\$	
Bilirubin, Total (Diazoion Ion)	mg/dL	0.589	0.471 – 0.707	3.06	2.45 – 3.68	7.14	5.71 – 8.57	µmol/L	10.1	8.06 – 12.1	52.4	41.9 – 62.9	122	97.7 – 147
C3 Complement (Immunoturbidimetric) (1)	mg/dL	90.3	72.3 – 108	121	96.9 – 145	153	122 – 184	g/L	0.903	0.723 – 1.08	1.21	0.969 – 1.45	1.53	1.22 – 1.84
C4 Complement (Immunoturbidimetric) (1)	mg/dL	16.9	13.5 – 20.3	22.2	17.7 – 26.6	28.0	22.4 – 33.7	g/L	0.169	0.135 – 0.203	0.221	0.177 – 0.266	0.280	0.224 – 0.337
Calcium, Total (Arsenazo III)	mg/dL	6.26	5.63 – 6.88	10.1	9.11 – 11.1	13.4	12.1 – 14.8	mmol/L	1.56	1.41 – 1.72	2.53	2.28 – 2.78	3.35	3.02 – 3.69
Carbamazepine (EIA)	µg/mL	4.08	3.26 – 4.89	9.50	7.60 – 11.4	15.0	12.0 – 18.0	µmol/L	17.3	13.8 – 20.7	40.2	32.1 – 48.2	63.3	50.7 – 76.0
Carbon Dioxide (CO2) (PEP carboxylase)	mEq/L	12.1	9.70 – 14.6	18.1	14.5 – 21.8	24.3	19.4 – 29.1	mmol/L	12.1	9.70 – 14.6	18.1	14.5 – 21.8	24.3	19.4 – 29.1
Chloride (ISE Indirect)	mEq/L	75.0	67.5 – 82.5	99.2	89.3 – 109	122	110 – 134	mmol/L	75.0	67.5 – 82.5	99.2	89.3 – 109	122	110 – 134
Cholesterol, High Density Lipoprotein (HDL)	mg/dL	34.7	27.8 – 41.7	56.7	45.4 – 68.1	97.2	77.8 – 117	mmol/L	0.899	0.719 – 1.08	1.47	1.18 – 1.76	2.52	2.01 – 3.02
Cholesterol, Low Density Lipoprotein (LDL)	mg/dL	56.0	44.8 – 67.2	73.4	58.7 – 88.1	113	90.7 – 136	mmol/L	1.45	1.16 – 1.74	1.90	1.52 – 2.28	2.94	2.35 – 3.53
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	109	87.6 – 131	173	139 – 208	263	211 – 316	mmol/L	2.83	2.27 – 3.40	4.49	3.59 – 5.39	6.82	5.45 – 8.18
Cholinesterase (Butyrylthiocholine (Trinder)) (Sentinel) (1) (4)	U/L	5385	4308 – 6462	7515	6012 – 9018	9497	7597 – 11396	µmol/L/sec	89.9	71.9 – 108	125	100 – 151	159	127 – 190
CK-MB Isoenzyme (Immunoinhibition, enzymatic) (3) (4)	ng/mL	0.783	0.603 – 0.963	0.917	0.706 – 1.13	1.32	1.05 – 1.58	µg/L	0.783	0.603 – 0.963	0.917	0.706 – 1.13	1.32	1.05 – 1.58
Creatine Kinase (CK) (NAC activated) (IFCC 2002) (4)	U/L	100	80.2 – 120	300	240 – 360	739	591 – 886	µmol/L/sec	1.67	1.34 – 2.01	5.01	4.01 – 6.02	12.3	9.87 – 14.8
Creatinine (Alkaline picrate IDMS)	mg/dL	0.550	0.440 – 0.660	1.92	1.54 – 2.31	6.91	5.53 – 8.29	µmol/L	48.6	38.9 – 58.3	170	136 – 204	611	489 – 733
Creatinine (Enzymatic) (Sentinel)	mg/dL	0.500	0.400 – 0.600	1.90	1.52 – 2.28	6.60	5.28 – 7.92	µmol/L	44.2	35.4 – 53.0	168	134 – 202	583	467 – 700
Digoxin (Immunoturbidimetric)	ng/mL	0.508	0.407 – 0.610	1.86	1.49 – 2.23	2.99	2.40 – 3.59	nmol/L	0.650	0.520 – 0.780	2.38	1.91 – 2.86	3.83	3.07 – 4.60
Ethanol (Enzymatic)	mg/dL	20.0	16.0 – 24.0	75.4	60.3 – 90.5	195	156 – 234	mmol/L	4.34	3.47 – 5.21	16.4			

		Level 1 - 45631		Level 2 - 45632		Level 3 - 45633			Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
	Units	Mean	Range	Mean	Range	Mean	Range	SI	Mean	Range	Mean	Range	Mean	Range
ABBOTT ARCHITECT cSYSTEMS (continued)														
Sodium (ISE Indirect)	mEq/L	111	100 – 122	139	125 – 153	160	144 – 176	mmol/L	111	100 – 122	139	125 – 153	160	144 – 176
Theophylline (EIA)	µg/mL	4.93	3.95 – 5.92	16.1	12.9 – 19.4	26.6	21.3 – 31.9	µmol/L	27.4	21.9 – 32.9	89.6	71.7 – 107	148	118 – 177
Tobramycin (Immunoturbidimetric)	µg/mL	4.74	3.80 – 5.69	3.33	2.66 – 3.99	1.70	1.36 – 2.04	µmol/L	10.2	8.12 – 12.2	7.12	5.70 – 8.55	3.63	2.90 – 4.36
Transferrin (Immunoturbidimetric) (1)	mg/dL	160	128 – 192	200	160 – 239	268	214 – 321	g/L	1.60	1.28 – 1.92	2.00	1.60 – 2.39	2.68	2.14 – 3.21
Triglycerides (Enzymatic, Endpoint)	mg/dL	92.9	74.3 – 112	134	107 – 161	204	163 – 245	mmol/L	1.05	0.840 – 1.26	1.52	1.21 – 1.82	2.31	1.85 – 2.77
Urea Nitrogen (BUN) (Urease, UV) (6)	mg/dL	15.3	12.2 – 18.3	40.1	32.1 – 48.2	69.3	55.4 – 83.1	mmol/L	5.44	4.36 – 6.53	14.3	11.5 – 17.2	24.7	19.8 – 29.7
Uric Acid (Uricase, colorimetric)	mg/dL	2.91	2.33 – 3.50	5.24	4.19 – 6.29	9.56	7.65 – 11.5	µmol/L	173	139 – 208	312	250 – 374	569	455 – 682
Valproic Acid (Immunoturbidimetric)	µg/mL	23.0	18.4 – 27.6	63.9	51.1 – 76.7	103	82.6 – 124	µmol/L	159	127 – 191	443	354 – 531	716	573 – 859
ABBOTT AxSYM														
Acetaminophen (FPIA)	µg/mL	16.0	12.8 – 19.2	51.8	41.4 – 62.1	164	131 – 197	µmol/L	106	84.7 – 127	342	274 – 411	1086	869 – 1304
Carbamazepine (FPIA)	µg/mL	4.15	3.32 – 4.98	9.50	7.60 – 11.4	14.7	11.7 – 17.6	µmol/L	17.5	14.0 – 21.0	40.2	32.2 – 48.2	62.1	49.7 – 74.5
Digoxin (EIA)	ng/mL	\$		\$		\$		nmol/L	\$		\$		\$	
Digoxin (EIA) (Digoxin III)	ng/mL	0.548	0.438 – 0.657	1.75	1.40 – 2.10	2.56	2.04 – 3.07	nmol/L	0.701	0.561 – 0.841	2.24	1.79 – 2.69	3.27	2.62 – 3.92
Ethanol (REA)	mg/dL	\$		\$		\$		mmol/L	\$		\$		\$	
Gentamicin (FPIA)	µg/mL	1.93	1.54 – 2.32	5.77	4.61 – 6.92	>10.0		µmol/L	4.03	3.23 – 4.84	12.1	9.64 – 14.5	>20.9	
Phenobarbital (FPIA)	µg/mL	9.37	7.50 – 11.2	29.1	23.3 – 34.9	61.5	49.2 – 73.8	µmol/L	40.4	32.3 – 48.5	126	100 – 151	265	212 – 318
Phenytoin (FPIA)	µg/mL	4.26	3.41 – 5.11	10.7	8.60 – 12.9	20.7	16.5 – 24.8	µmol/L	16.9	13.5 – 20.2	42.6	34.0 – 51.1	81.9	65.5 – 98.3
Salicylate (FPIA)	mg/dL	6.26	4.94 – 7.57	11.3	9.08 – 13.6	17.2	13.7 – 20.6	mmol/L	0.453	0.358 – 0.548	0.822	0.657 – 0.986	1.24	0.995 – 1.49
T3 Total (EIA)	ng/mL	0.482	<0.300 – 0.685	1.20	0.958 – 1.44	1.94	1.55 – 2.32	nmol/L	0.742	<0.462 – 1.05	1.84	1.47 – 2.21	2.98	2.39 – 3.58
T3 Uptake / T-Uptake (FPIA) (%Uptake)	% Uptake	\$		\$		\$		% Uptake	\$		\$		\$	
T4 Free (EIA)	ng/dL	\$		\$		\$		pmol/L	\$		\$		\$	
T4 Total (FPIA)	µg/dL	5.40	4.32 – 6.48	7.21	5.77 – 8.66	12.7	10.1 – 15.2	nmol/L	69.7	55.8 – 83.6	93.1	74.4 – 112	164	131 – 196
Theophylline (FPIA)	µg/mL	4.75	3.80 – 5.70	15.3	12.3 – 18.4	25.0	20.0 – 30.0	µmol/L	26.3	21.1 – 31.6	85.1	68.1 – 102	139	111 – 167
Thyroid Stimulating Hormone (TSH) (EIA)	µIU/mL	\$		\$		\$		mIU/L	\$		\$		\$	
Tobramycin (FPIA)	µg/mL	7.47	5.97 – 8.96	4.89	3.91 – 5.87	2.32	1.85 – 2.78	µmol/L	16.0	12.8 – 19.2	10.5	8.37 – 12.6	4.95	3.96 – 5.94
Valproic Acid (FPIA)	µg/mL	24.4	19.5 – 29.2	61.4	49.1 – 73.7	102	81.8 – 123	µmol/L	169	135 – 203	425	340 – 510	709	567 – 850
ALFA WASSERMANN ACE														
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (IFCC) (4)	U/L	28.7	22.9 – 34.4	90.3	72.3 – 108	200	160 – 240	µmol/L/sec	0.479	0.383 – 0.574	1.51	1.21 – 1.81	3.35	2.68 – 4.01
Albumin (Bromcresol green)	g/dL	2.76	2.21 – 3.32	3.54	2.83 – 4.25	4.50	3.60 – 5.40	g/L	27.6	22.1 – 33.2	35.4	28.3 – 42.4	45.0	36.0 – 54.0
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (4)	U/L	33.0	26.4 – 39.6	168	134 – 201	325	260 – 390	µmol/L/sec	0.551	0.441 – 0.661	2.80	2.24 – 3.36	5.42	4.34 – 6.51
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (IFCC) (4)	U/L	42.3	33.9 – 50.8	108	86.7 – 130	248	198 – 297	µmol/L/sec	0.707	0.566 – 0.848	1.81	1.45 – 2.17	4.14	3.31 – 4.96
Bilirubin, Direct (Diazotization) (BC) (DBIL)	mg/dL	0.413	0.330 – 0.495	1.71	1.37 – 2.06	3.14	2.51 – 3.77	µmol/L	7.05	5.64 – 8.46	29.3	23.4 – 35.1	53.7	42.9 – 64.4
Bilirubin, Total (Sulphanilic acid, DMSO)	mg/dL	0.783	0.627 – 0.940	3.63	2.91 – 4.36	8.15	6.52 – 9.78	µmol/L	13.4	10.7 – 16.1	62.1	49.7 – 74.6	139	111 – 167
Calcium, Total (Arsenazo III)	mg/dL	5.83	5.25 – 6.42	9.43	8.49 – 10.4	12.3	11.1 – 13.5	mmol/L	1.46	1.31 – 1.60	2.36	2.12 – 2.59	3.07	2.76 – 3.38
Chloride (ISE Direct)	mEq/L	74.2	66.8 – 81.6	98.8	88.9 – 109	126	113 – 138	mmol/L	74.2	66.8 – 81.6	98.8	88.9 – 109	126	113 – 138
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	105	83.9 – 126	167	134 – 200	254	203 – 304	mmol/L	2.72	2.17 – 3.26	4.32	3.46 – 5.19	6.57	5.25 – 7.88
Creatinine (Alkaline picrate-kinetic)	mg/dL	0.582	0.465 – 0.698	1.71	1.37 – 2.06	5.48	4.38 – 6.57	µmol/L	51.4	41.1 – 61.7	151	121 – 182	484	387 – 581
Glucose (Hexokinase)	mg/dL	60.0	48.0 – 72.0	119	94.9 – 142	356	285 – 427	mmol/L	3.33	2.66 – 4.00	6.59	5.27 – 7.90	19.8	15.8 – 23.7
Phosphorus (Phosphomolybdate-UV)	mg/dL	\$		\$		\$		mmol/L	\$		\$		\$	
Potassium (ISE Direct)	mEq/L	2.60	2.34 – 2.86	4.05	3.65 – 4.46	7.90	7.11 – 8.69	mmol/L	2.60	2.34 – 2.86	4.05	3.65 – 4.46	7.90	7.11 – 8.69
Protein, Total (Biuret, no serum blank, end point)	g/dL	4.12	3.29 – 4.94	5.37	4.29 – 6.44	6.85	5.48 – 8.22	g/L	41.2	32.9 – 49.4	53.7	42.9 – 64.4	68.5	54.8 – 82.2
Sodium (ISE Direct)	mEq/L	112	100 – 123	141	126 – 155	165	149 – 182	mmol/L	112	100 – 123	141	126 – 155	165	149 – 182
Triglycerides (Enzymatic, Endpoint)	mg/dL	95.4	76.3 – 114	130	104 – 155	195	156 – 233	mmol/L	1.08	0.862 – 1.29	1.46	1.17 – 1.76	2.20	1.76 – 2.64
Urea Nitrogen (BUN) (Urease, UV) (6)	mg/dL	15.0	12.0 – 18.0	39.8	31.9 – 47.8	67.7	54.1 – 81.2	mmol/L	5.36	4.28 – 6.43	14.2	11.4 – 17.1	24.2	19.3 – 29.0
Uric Acid (Uricase, colorimetric)	mg/dL	3.45	2.76 – 4.14	5.38	4.30 – 6.45	9.31	7.45 – 11.2	µmol/L	205	164 – 246	320	256 – 384	554	443 – 665
BECKMAN COULTER ACCESS SYSTEMS														
Cortisol (Chemiluminescence)	µg/dL	\$		\$		\$		nmol/L	\$		\$		\$	
Digoxin (Chemiluminescence)	ng/mL	\$		\$		\$		nmol/L	\$		\$		\$	
Ferritin (Chemiluminescence) (1)	ng/mL	28.8	23.0 – 34.5	51.3	41.0 – 61.5	47.8	38.3 – 57.4	µg/L	28.8	23.0 – 34.5	51.3	41.0 – 61.5	47.8	38.3 – 57.4
T3 Total (Chemiluminescence)	ng/mL	0.859	0.687 – 1.03	1.76	1.40 – 2.11	2.49	1.99 – 2.99	nmol/L	1.32	1.06 – 1.59	2.70	2.16 – 3.25	3.83	3.07 – 4.60
T3 Uptake / T-Uptake (Chemiluminescence)	% Uptake	\$		\$		\$		% Uptake	\$		\$		\$	
T4 Free (Chemiluminescence)	ng/dL	1.01	0.809 – 1.21	1.25	0.997 – 1.50	2.27	1.81 – 2.72	pmol/L	13.1	10.4 – 15.7	16.1	12.9 – 19.3	29.3	23.4 – 35.1
T4 Total (Chemiluminescence)	µg/dL	5.03	4.02 – 6.03	6.45	5.16 – 7.74	10.5	8.38 – 12.6	nmol/L	64.9	51.9 – 77.8	83.2	66.6 – 99.8	135	108 – 162
Thyroid Stimulating Hormone (TSH) (Chemiluminescence)	µIU/mL	1.17	0.933 – 1.40	4.16	3.33 – 5.00	11.5	9.19 – 13.8	mIU/L	1.17	0.933 – 1.40	4.16	3.33 – 5.00	11.5	9.19 – 13.8
Vitamin B12 (Chemiluminescence) (1)	pg/mL	128	102 – 153	159	127 – 191	171	137 – 206	pmol/L	94.3	75.5 – 113	117	93.8 – 141	126	101 – 152
BECKMAN COULTER AU 400 / 600 / 640 / 680 / 2700 / 5400														
Acetaminophen (EIA) (EMIT 2000)	µg/mL	14.1	11.3 – 16.9	46.3	37.1 – 55.6	158	126 – 189	µmol/L	93.2	74.6 – 112	306	245 – 367	1043	835 – 1252
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (Europe/Asia) (IFCC 2002) (4)	U/L	28.9	23.1 – 34.6	98.1	78.5 – 118	228	182 – 273	µmol/L/sec	0.482	0.386 – 0.578	1.64	1.31 – 1.97	3.80	3.04 – 4.56
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (IFCC) (4)	U/L	24.4	19.5 – 29.3	83.1	66.5 – 99.8	194	155 – 233	µmol/L/sec	0.407	0.326 – 0.488	1.39	1.11 – 1.67	3.24	2.59 – 3.88
Albumin (Bromcresol green)	g/dL	2.64	2.11 – 3.17	3.42	2.73 – 4.10	4.44	3.55 – 5.32	g/L	26.4	21.1 – 31.7	34.2	27.3 – 41.0	44.3	35.5 – 53.2
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (4)	U/L	29.8	23.8 – 35.7	154	123 – 185	305	244 – 366	µmol/L/sec	0.497	0.397 – 0.596	2.57	2.06 – 3.09	5.09	4.07 – 6.11
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (Europe/Asia) (IFCC 2002) (4)	U/L	35.3	28.2 – 42.3	188	151 – 226	370	296 – 444	µmol/L/sec	0.589	0.471 – 0.707	3.14	2.52 – 3.77	6.18	4.94 – 7.41
Amylase (G7 PNP, Blocked)														

	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range
BECKMAN COULTER AU 400 / 600 / 640 / 680 / 2700 / 5400 (continued)														
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	104	83.2 – 125	166	133 – 199	257	206 – 308	mmol/L	2.69	2.15 – 3.23	4.30	3.44 – 5.17	6.65	5.32 – 7.98
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase) (Europe/Asia)	mg/dL	111	89.0 – 134	177	142 – 213	272	218 – 326	mmol/L	2.88	2.31 – 3.46	4.59	3.67 – 5.51	7.04	5.64 – 8.45
Cholinesterase (Butyrylthiocholine (Trinder)) (Europe/Asia) (1) (4)	U/L	4114	3291 – 4937	5744	4595 – 6892	7132	5706 – 8559	µmol/L/sec	68.7	55.0 – 82.4	95.9	76.7 – 115	119	95.3 – 143
CK-MB Isoenzyme (Immunoinhibition, enzymatic) (3) (4)	U/L	34.2	27.3 – 41.0	210	168 – 252	625	500 – 750	µmol/L/sec	0.571	0.457 – 0.685	3.51	2.80 – 4.21	10.4	8.35 – 12.5
Creatine Kinase (CK) (NAC activated) (4)	U/L	84.9	67.9 – 102	256	205 – 307	611	489 – 733	µmol/L/sec	1.42	1.13 – 1.70	4.28	3.42 – 5.13	10.2	8.16 – 12.2
Creatine Kinase (CK) (NAC activated) (Europe/Asia) (4)	U/L	98.0	78.4 – 118	298	238 – 357	710	568 – 852	µmol/L/sec	1.64	1.31 – 1.96	4.97	3.98 – 5.97	11.9	9.49 – 14.2
Creatinine (Alkaline picrate-kinetic)	mg/dL	0.502	0.401 – 0.602	1.87	1.49 – 2.24	6.24	4.99 – 7.49	µmol/L	44.3	35.5 – 53.2	165	132 – 198	552	442 – 662
Creatinine (Alkaline picrate-kinetic) (Europe/Asia, not compensated)	mg/dL	0.695	0.556 – 0.834	2.05	1.64 – 2.46	6.39	5.12 – 7.67	µmol/L	61.4	49.1 – 73.7	181	145 – 218	565	452 – 678
Digoxin (EIA) (EMIT 2000)	ng/mL	0.536	0.354 – 0.719	1.73	1.38 – 2.07	3.12	2.50 – 3.74	nmol/L	0.686	0.453 – 0.920	2.21	1.77 – 2.66	3.99	3.19 – 4.79
Ethanol (Enzymatic UV)	mg/dL	20.3	16.2 – 24.3	74.4	59.5 – 89.3	194	156 – 233	mmol/L	4.40	3.52 – 5.28	16.1	12.9 – 19.4	42.2	33.7 – 50.6
Gamma Glutamyltransferase (GGT) (IFCC 2002) (Europe/Asia) (4)	U/L	30.2	24.1 – 36.2	89.6	71.7 – 108	138	110 – 166	µmol/L/sec	0.504	0.403 – 0.604	1.50	1.20 – 1.80	2.31	1.84 – 2.77
Gamma Glutamyltransferase (GGT) (IFCC) (4)	U/L	25.2	20.1 – 30.2	74.3	59.5 – 89.2	116	92.5 – 139	µmol/L/sec	0.420	0.336 – 0.504	1.24	0.993 – 1.49	1.93	1.55 – 2.32
Gentamicin (EIA) (EMIT 2000)	µg/mL	2.02	1.62 – 2.42	5.66	4.53 – 6.79	>10.0		µmol/L	4.22	3.38 – 5.06	11.8	9.47 – 14.2	>20.9	
Glucose (Hexokinase)	mg/dL	61.7	49.3 – 74.0	120	96.1 – 144	359	288 – 431	mmol/L	3.42	2.74 – 4.11	6.67	5.33 – 8.00	19.9	16.0 – 23.9
Immunoglobulin A (IgA) (Immunoturbidimetric) (1)	mg/dL	126	101 – 151	161	129 – 193	197	158 – 236	g/L	1.26	1.01 – 1.51	1.61	1.29 – 1.93	1.97	1.58 – 2.36
Immunoglobulin G (IgG) (Immunoturbidimetric) (1)	mg/dL	611	489 – 733	755	604 – 906	926	741 – 1111	g/L	6.11	4.89 – 7.33	7.55	6.04 – 9.06	9.26	7.41 – 11.1
Immunoglobulin M (IgM) (Immunoturbidimetric) (1)	mg/dL	58.0	46.4 – 69.6	70.1	56.0 – 84.1	94.0	75.2 – 113	g/L	0.580	0.464 – 0.696	0.701	0.560 – 0.841	0.940	0.752 – 1.13
Iron (TPTZ-no deproteinization)	µg/dL	77.8	62.3 – 93.4	165	132 – 198	255	204 – 306	µmol/L	13.9	11.1 – 16.7	29.6	23.7 – 35.5	45.6	36.5 – 54.8
Iron (TPTZ-no deproteinization) (Europe/Asia)	µg/dL	73.2	58.5 – 87.8	159	127 – 190	244	195 – 293	µmol/L	13.1	10.5 – 15.7	28.4	22.7 – 34.1	43.6	34.9 – 52.4
Lactate (Lactic Acid) (Lactate to Pyruvate) (OSR 6193) (Europe/Asia)	mg/dL	14.4	11.5 – 17.2	30.9	24.7 – 37.1	52.9	42.3 – 63.4	mmol/L	1.59	1.28 – 1.91	3.43	2.74 – 4.12	5.87	4.69 – 7.04
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (IFCC 2002) (Europe/Asia) (4)	U/L	115	92.1 – 138	169	135 – 203	389	311 – 467	µmol/L/sec	1.92	1.54 – 2.31	2.82	2.26 – 3.39	6.50	5.20 – 7.80
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (IFCC) (4)	U/L	96.3	77.0 – 116	141	113 – 170	325	260 – 390	µmol/L/sec	1.61	1.29 – 1.93	2.36	1.89 – 2.83	5.43	4.34 – 6.52
Lipase (Enzymatic, colorimetric) (4)	U/L	21.7	17.3 – 26.0	46.5	37.2 – 55.8	152	121 – 182	µmol/L/sec	0.362	0.289 – 0.434	0.777	0.621 – 0.932	2.54	2.03 – 3.04
Lithium (Colorimetric)	mEq/L	0.602	0.475 – 0.728	1.43	1.28 – 1.57	2.06	1.85 – 2.26	mmol/L	0.602	0.475 – 0.728	1.43	1.28 – 1.57	2.06	1.85 – 2.26
Magnesium (Xylylid blue)	mg/dL	1.10	0.933 – 1.26	2.56	2.18 – 2.95	3.98	3.38 – 4.58	mmol/L	0.452	0.384 – 0.519	1.05	0.897 – 1.21	1.64	1.39 – 1.88
Phenobarbital (EIA) (EMIT 2000)	µg/mL	8.69	6.95 – 10.4	30.1	24.1 – 36.1	60.4	48.3 – 72.5	µmol/L	37.5	30.0 – 44.9	130	104 – 156	260	208 – 313
Phenytoin (EIA) (EMIT 2000)	µg/mL	4.14	3.31 – 4.96	10.5	8.37 – 12.6	19.8	15.8 – 23.7	µmol/L	16.4	13.1 – 19.7	41.4	33.1 – 49.7	78.4	62.7 – 94.0
Phosphorus (Phosphomolybdate-UV)	mg/dL	1.78	1.60 – 1.96	3.85	3.47 – 4.24	6.80	6.12 – 7.48	mmol/L	0.576	0.518 – 0.634	1.24	1.12 – 1.37	2.20	1.98 – 2.42
Phosphorus (Phosphomolybdate-UV) (Europe/Asia)	mg/dL	1.89	1.70 – 2.08	4.07	3.67 – 4.48	7.24	6.52 – 7.97	mmol/L	0.611	0.550 – 0.672	1.32	1.18 – 1.45	2.34	2.11 – 2.57
Potassium (ISE Indirect)	mEq/L	2.52	2.27 – 2.77	3.92	3.53 – 4.31	7.33	6.60 – 8.07	mmol/L	2.52	2.27 – 2.77	3.92	3.53 – 4.31	7.33	6.60 – 8.07
Protein, Total (Biuret, reagent blank, end point)	g/dL	4.13	3.31 – 4.96	5.33	4.27 – 6.40	6.87	5.49 – 8.24	g/L	41.3	33.1 – 49.6	53.3	42.7 – 64.0	68.7	54.9 – 82.4
Salicylate (EIA)	mg/dL	7.12	5.70 – 8.55	12.7	10.2 – 15.2	19.2	15.4 – 23.0	mmol/L	0.516	0.413 – 0.619	0.919	0.735 – 1.10	1.39	1.11 – 1.67
Sodium (ISE Indirect)	mEq/L	111	99.5 – 122	137	123 – 151	155	139 – 170	mmol/L	111	99.5 – 122	137	123 – 151	155	139 – 170
Theophylline (EIA) (EMIT 2000)	µg/mL	4.56	3.64 – 5.47	15.1	12.1 – 18.1	25.4	18.8 – 32.0	µmol/L	25.3	20.2 – 30.3	83.9	67.1 – 101	141	104 – 178
Transferrin (Immunoturbidimetric) (1)	mg/dL	175	140 – 210	211	169 – 253	280	224 – 336	g/L	1.75	1.40 – 2.10	2.11	1.69 – 2.53	2.80	2.24 – 3.36
Triglycerides (Enzymatic, Endpoint)	mg/dL	96.9	77.5 – 116	137	110 – 165	212	169 – 254	mmol/L	1.09	0.876 – 1.31	1.55	1.24 – 1.86	2.39	1.91 – 2.87
Triglycerides (GPO-PAP) (Europe/Asia)	mg/dL	101	81.2 – 122	144	115 – 173	219	175 – 262	mmol/L	1.15	0.917 – 1.38	1.63	1.30 – 1.96	2.47	1.98 – 2.97
Urea Nitrogen (BUN) (Urease, UV) (6)	mg/dL	15.3	12.2 – 18.3	40.1	32.1 – 48.2	68.3	54.6 – 81.9	mmol/L	5.44	4.36 – 6.53	14.3	11.5 – 17.2	24.4	19.5 – 29.2
Uric Acid (Uricase, colorimetric)	mg/dL	3.53	2.83 – 4.24	6.03	4.83 – 7.24	10.5	8.36 – 12.5	µmol/L	210	168 – 252	359	287 – 431	622	497 – 746
Uric Acid (Uricase, colorimetric) (Europe/Asia)	mg/dL	3.35	2.68 – 4.02	5.74	4.59 – 6.88	9.97	7.98 – 12.0	µmol/L	199	159 – 239	341	273 – 409	593	475 – 712
Valproic Acid (EIA)	µg/mL	29.0	23.2 – 34.8	68.6	54.9 – 82.3	115	91.8 – 138	µmol/L	201	161 – 241	475	380 – 570	795	636 – 954
BECKMAN COULTER CX SERIES														
Acetaminophen (Immunoturbidimetric)	µg/mL	14.3	11.5 – 17.2	49.6	39.6 – 59.5	179	143 – 214	µmol/L	94.6	75.7 – 114	328	262 – 393	1181	945 – 1417
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (IFCC 2002) (4)	U/L	\$		\$		\$		µmol/L/sec	\$		\$		\$	
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (4)	U/L	29.8	23.9 – 35.8	92.7	74.1 – 111	206	164 – 247	µmol/L/sec	0.498	0.399 – 0.598	1.55	1.24 – 1.86	3.43	2.75 – 4.12
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (IFCC 2002) (4)	U/L	37.5	29.2 – 45.9	126	100 – 152	285	226 – 342	µmol/L/sec	0.626	0.488 – 0.767	2.10	1.67 – 2.54	4.76	3.77 – 5.71
Albumin (Bromocresol purple)	g/dL	2.55	2.04 – 3.06	3.31	2.65 – 3.97	4.28	3.42 – 5.13	g/L	25.5	20.4 – 30.6	33.1	26.5 – 39.7	42.8	34.2 – 51.3
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (4)	U/L	29.8	23.8 – 35.7	165	132 – 198	327	262 – 393	µmol/L/sec	0.497	0.397 – 0.596	2.76	2.21 – 3.31	5.47	4.37 – 6.56
Amylase (G7 PNP, Blocked) (AMY7) (4)	U/L	48.2	38.6 – 57.8	144	115 – 173	295	236 – 354	µmol/L/sec	0.805	0.644 – 0.966	2.41	1.93 – 2.89	4.93	3.94 – 5.92
Amylase (Maltotetraose) (Europe) (4)	IU/L	\$		\$		\$		µmol/L/sec	\$		\$		\$	
Amylase (Maltotetraose) (US) (4)	U/L	\$		\$		\$		µmol/L/sec	\$		\$		\$	
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (IFCC 2002) (4)	U/L	\$		\$		\$		µmol/L/sec	\$		\$		\$	
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (4)	U/L	38.8	31.0 – 46.5	104	83.3 – 125	238	190 – 286	µmol/L/sec	0.647	0.518 – 0.777	1.74	1.39 – 2.09	3.97	3.18 – 4.77
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (IFCC 2002) (4)	U/L	42.8	33.6 – 51.9	119	95.0 – 144	277								

	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range
BECKMAN COULTER CX SERIES (continued)														
Lactate (Lactic Acid) (Enzymatic)	mg/dL	\$		\$		\$		mmol/L	\$		\$		\$	
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (4)	U/L	92.2	73.7 – 111	138	110 – 165	318	255 – 382	µmol/L/sec	1.54	1.23 – 1.85	2.30	1.84 – 2.76	5.32	4.25 – 6.38
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (IFCC 2002) (4)	U/L	116	93.1 – 140	170	136 – 204	381	305 – 457	µmol/L/sec	1.94	1.55 – 2.33	2.84	2.27 – 3.41	6.36	5.09 – 7.63
Lipase (Colorimetric) (LIP) (4)	U/L	20.2	16.1 – 24.2	46.3	37.1 – 55.6	136	109 – 163	µmol/L/sec	0.337	0.269 – 0.404	0.774	0.619 – 0.929	2.27	1.82 – 2.73
Magnesium (Calmagite)	mg/dL	1.16	0.986 – 1.33	2.77	2.35 – 3.18	4.32	3.68 – 4.97	mmol/L	0.477	0.406 – 0.549	1.14	0.967 – 1.31	1.78	1.51 – 2.05
Phenobarbital (Immunoturbidimetric)	µg/mL	8.64	6.91 – 10.4	28.7	23.0 – 34.4	60.3	48.2 – 72.3	µmol/L	37.2	29.8 – 44.7	124	98.9 – 148	260	208 – 312
Phenytoin (Immunoturbidimetric)	µg/mL	3.76	3.01 – 4.52	10.3	8.21 – 12.3	20.4	16.3 – 24.5	µmol/L	14.9	11.9 – 17.9	40.6	32.5 – 48.8	80.7	64.6 – 96.9
Phosphorus (Phosphomolybdate-UV) (Cartridge-P04)	mg/dL	1.77	1.48 – 2.05	4.07	3.66 – 4.47	7.32	6.59 – 8.05	mmol/L	0.571	0.479 – 0.662	1.31	1.18 – 1.44	2.36	2.13 – 2.60
Potassium (ISE Indirect)	mEq/L	2.40	2.16 – 2.64	3.92	3.53 – 4.31	7.54	6.78 – 8.29	mmol/L	2.40	2.16 – 2.64	3.92	3.53 – 4.31	7.54	6.78 – 8.29
Protein, Total (Biuret, kinetic) (Modular-TP3)	g/dL	4.09	3.27 – 4.91	5.32	4.26 – 6.39	6.81	5.45 – 8.17	g/L	40.9	32.7 – 49.1	53.2	42.6 – 63.9	68.1	54.5 – 81.7
Protein, Total (Biuret, no serum blank, end point) (Cartridge-TP)	g/dL	4.35	3.48 – 5.22	5.73	4.58 – 6.87	7.16	5.73 – 8.60	g/L	43.5	34.8 – 52.2	57.2	45.8 – 68.7	71.6	57.3 – 86.0
Salicylate (Enzymatic)	mg/dL	7.32	5.85 – 8.78	13.3	10.7 – 16.0	20.2	16.2 – 24.2	mmol/L	0.530	0.424 – 0.636	0.964	0.771 – 1.16	1.46	1.17 – 1.75
Sodium (ISE Indirect)	mEq/L	112	101 – 123	138	124 – 152	158	142 – 174	mmol/L	112	101 – 123	138	124 – 152	158	142 – 174
Theophylline (Immunoturbidimetric)	µg/mL	4.47	3.57 – 5.36	14.6	11.6 – 17.5	24.0	19.2 – 28.8	µmol/L	24.8	19.8 – 29.7	80.8	64.6 – 96.9	133	107 – 160
Tobramycin (Immunoturbidimetric)	µg/mL	6.80	5.44 – 8.16	4.52	3.62 – 5.43	1.89	1.51 – 2.26	µmol/L	14.5	11.6 – 17.5	9.68	7.74 – 11.6	4.04	3.23 – 4.84
Triglycerides (Enzymatic, Endpoint)	mg/dL	94.0	75.2 – 113	137	109 – 164	207	165 – 248	mmol/L	1.06	0.850 – 1.27	1.54	1.24 – 1.85	2.34	1.87 – 2.80
Urea Nitrogen (BUN) (Urease, UV) (Cartridge-BUN) (6)	mg/dL	15.6	12.5 – 18.7	40.8	32.6 – 49.0	69.9	55.9 – 83.9	mmol/L	5.57	4.46 – 6.68	14.6	11.7 – 17.5	25.0	20.0 – 29.9
Uric Acid (Uricase, colorimetric)	mg/dL	3.28	2.62 – 3.94	5.50	4.40 – 6.60	9.27	7.42 – 11.1	µmol/L	195	156 – 234	327	262 – 393	551	441 – 662
Valproic Acid (Immunoturbidimetric)	µg/mL	22.1	17.7 – 26.6	58.6	46.9 – 70.4	102	81.6 – 122	µmol/L	153	123 – 184	406	325 – 488	707	566 – 848
BECKMAN COULTER IMAGE														
Albumin (Immunonephelometric, kinetic)	g/dL	2.52	2.01 – 3.02	3.32	2.65 – 3.98	4.02	3.22 – 4.82	g/L	25.2	20.1 – 30.2	33.2	26.5 – 39.8	40.2	32.2 – 48.2
Alpha-1-Antitrypsin (Immunonephelometric, kinetic) (1)	mg/dL	88.9	71.1 – 107	124	99.3 – 149	157	126 – 188	g/L	0.889	0.711 – 1.07	1.24	0.993 – 1.49	1.57	1.26 – 1.88
C3 Complement (Immunonephelometric, kinetic) (1)	mg/dL	81.5	65.2 – 97.8	116	93.1 – 140	155	124 – 186	g/L	0.815	0.652 – 0.978	1.16	0.931 – 1.40	1.55	1.24 – 1.86
C4 Complement (Immunonephelometric, kinetic) (1)	mg/dL	21.3	16.8 – 25.8	30.4	23.1 – 37.6	40.0	30.4 – 49.6	g/L	0.213	0.168 – 0.258	0.304	0.231 – 0.376	0.400	0.304 – 0.496
Ceruloplasmin (Immunonephelometric, kinetic) (1)	mg/dL	22.8	18.2 – 27.3	29.4	23.5 – 35.3	41.8	33.4 – 50.1	mg/L	228	182 – 273	294	235 – 353	418	334 – 501
Haptoglobin (Immunonephelometric, kinetic) (1)	mg/dL	72.8	58.3 – 87.4	104	82.9 – 124	124	99.0 – 149	g/L	0.728	0.583 – 0.874	1.04	0.829 – 1.24	1.24	0.990 – 1.49
Immunoglobulin A (IgA) (Immunonephelometric, kinetic) (1)	mg/dL	116	92.5 – 139	156	124 – 187	205	164 – 245	g/L	1.16	0.925 – 1.39	1.56	1.24 – 1.87	2.05	1.64 – 2.45
Immunoglobulin G (IgG) (Immunonephelometric, kinetic) (1)	mg/dL	594	476 – 713	742	594 – 890	925	740 – 1110	g/L	5.94	4.76 – 7.13	7.42	5.94 – 8.90	9.25	7.40 – 11.1
Immunoglobulin M (IgM) (Immunonephelometric, kinetic) (1)	mg/dL	64.4	51.5 – 77.2	80.9	64.7 – 97.1	113	90.1 – 135	g/L	0.644	0.515 – 0.772	0.809	0.647 – 0.971	1.13	0.901 – 1.35
Prealbumin (Immunonephelometric, kinetic) (1)	mg/dL	15.9	12.7 – 19.1	22.5	18.0 – 27.0	30.3	24.2 – 36.3	mg/L	159	127 – 191	225	180 – 270	303	242 – 363
Transferrin (Immunonephelometric, kinetic) (1)	mg/dL	168	135 – 202	215	172 – 258	297	237 – 356	g/L	1.68	1.35 – 2.02	2.15	1.72 – 2.58	2.97	2.37 – 3.56
BECKMAN COULTER SYNCHRON LX / UniCel DxC SERIES														
Acetaminophen (Immunoturbidimetric)	µg/mL	14.5	11.6 – 17.4	50.2	40.2 – 60.3	177	142 – 213	µmol/L	96.1	76.9 – 115	332	266 – 398	1173	938 – 1408
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (IFCC 2002) (4)	U/L	29.5	23.6 – 35.4	97.9	78.3 – 117	227	181 – 272	µmol/L/sec	0.493	0.394 – 0.592	1.63	1.31 – 1.96	3.78	3.03 – 4.54
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (4)	U/L	32.9	26.3 – 39.5	97.6	78.1 – 117	218	175 – 262	µmol/L/sec	0.549	0.439 – 0.659	1.63	1.30 – 1.96	3.65	2.92 – 4.38
Albumin (Bromcresol purple) (Cartridge-ALB)	g/dL	2.57	2.06 – 3.08	3.29	2.63 – 3.95	4.25	3.40 – 5.10	g/L	25.7	20.6 – 30.8	32.9	26.3 – 39.5	42.5	34.0 – 51.0
Albumin (Bromcresol purple) (Modular-ALBm)	g/dL	2.49	1.99 – 2.99	3.23	2.58 – 3.87	4.13	3.30 – 4.95	g/L	24.9	19.9 – 29.9	32.3	25.8 – 38.7	41.3	33.0 – 49.5
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (4)	U/L	30.4	24.3 – 36.5	170	136 – 204	338	270 – 405	µmol/L/sec	0.507	0.406 – 0.609	2.84	2.27 – 3.40	5.64	4.51 – 6.77
Amylase (AMYx) (4)	U/L	44.9	35.9 – 53.9	134	107 – 160	276	221 – 331	µmol/L/sec	0.750	0.600 – 0.900	2.23	1.79 – 2.68	4.61	3.68 – 5.53
Amylase (G7 PNP, Blocked) (AMY7) (4)	U/L	47.3	37.8 – 56.7	144	115 – 173	290	232 – 348	µmol/L/sec	0.789	0.632 – 0.947	2.40	1.92 – 2.88	4.85	3.88 – 5.82
Amylase (Maltotetraose) (Europe) (4)	IU/L	\$		\$		\$		µmol/L/sec	\$		\$		\$	
Amylase (Maltotetraose) (US) (4)	U/L	\$		\$		\$		µmol/L/sec	\$		\$		\$	
Amylase, Pancreatic (4)	U/L	26.3	21.0 – 31.6	96.6	77.3 – 116	210	168 – 252	µmol/L/sec	0.439	0.351 – 0.527	1.61	1.29 – 1.94	3.50	2.80 – 4.20
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (IFCC 2002) (4)	U/L	38.1	30.5 – 45.8	113	90.8 – 136	271	217 – 325	µmol/L/sec	0.637	0.509 – 0.764	1.90	1.52 – 2.27	4.53	3.62 – 5.43
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (4)	U/L	40.8	32.6 – 49.0	108	86.4 – 130	246	197 – 295	µmol/L/sec	0.681	0.545 – 0.818	1.80	1.44 – 2.16	4.11	3.29 – 4.93
Bilirubin, Direct (Diazotization)	mg/dL	0.238	0.176 – 0.299	1.03	0.820 – 1.23	1.83	1.46 – 2.19	µmol/L	4.06	3.01 – 5.12	17.5	14.0 – 21.0	31.2	25.0 – 37.4
Bilirubin, Total (Jendrassik Grof)	mg/dL	1.10	0.880 – 1.32	3.70	2.96 – 4.44	7.81	6.25 – 9.38	µmol/L	18.8	15.0 – 22.6	63.3	50.6 – 75.9	134	107 – 160
Calcium, Total (ISE Indirect) (CALC)	mg/dL	6.01	5.41 – 6.61	9.67	8.70 – 10.6	12.6	11.3 – 13.9	mmol/L	1.50	1.35 – 1.65	2.42	2.18 – 2.66	3.15	2.84 – 3.47
Carbamazepine (Immunoturbidimetric)	µg/mL	3.67	2.93 – 4.40	8.74	6.99 – 10.5	13.3	10.6 – 15.9	µmol/L	15.5	12.4 – 18.6	37.0	29.6 – 44.4	56.0	44.8 – 67.3
Carbon Dioxide (CO2) (ISE Indirect)	mEq/L	15.0	12.0 – 18.0	21.0	16.8 – 25.2	27.3	21.8 – 32.7	mmol/L	15.0	12.0 – 18.0	21.0	16.8 – 25.2	27.3	21.8 – 32.7
Chloride (ISE Indirect)	mEq/L	75.1	67.6 – 82.6	100	90.0 – 110	121	109 – 133	mmol/L	75.1	67.6 – 82.6	100	90.0 – 110	121	109 – 133
Cholesterol, High Density Lipoprotein (HDL) (Direct measure, polymer-polyanion)	mg/dL	32.0	25.6 – 38.3	66.6	53.3 – 79.9	116	92.6 – 139	mmol/L	0.828	0.662 – 0.993	1.72	1.38 – 2.07	3.00	2.40 – 3.60
Cholesterol, Low Density Lipoprotein (LDL) (Direct measure)	mg/dL	53.2	42.6 – 63.8	68.4	54.7 – 82.1	108	86.4 – 130	mmol/L	1.38	1.10 – 1.65	1.77	1.42 – 2.13	2.80	2.24 – 3.36
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	107	85.4 – 128	176	141 – 211	277	221 – 332	mmol/L	2.76	2.21 – 3.32	4.56	3.64 – 5.47	7.16	5.73 – 8.59
Cholinesterase (Butyrylthiocholine) (DGKC'72 Slope 1, 168 Offset 9) (Europe) (1) (4)	U/L	5532	4426 – 6638	7858	6286 – 9429	10118	8095 – 12142	µmol/L/sec	92.4	73.9 – 111	131			

	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range
BECKMAN COULTER SYNCRON LX / UniCel Dx C SERIES (continued)														
Magnesium (Calmagite)	mg/dL	1.17	0.995 – 1.35	2.82	2.40 – 3.24	4.37	3.71 – 5.03	mmol/L	0.481	0.409 – 0.554	1.16	0.986 – 1.33	1.80	1.53 – 2.07
Phenobarbital (Immunoturbidimetric)	µg/mL	8.64	6.91 – 10.4	28.7	23.0 – 34.4	60.3	48.2 – 72.3	µmol/L	37.2	29.8 – 44.7	124	98.9 – 148	260	208 – 312
Phenytoin (Immunoturbidimetric)	µg/mL	3.92	3.14 – 4.70	10.4	8.29 – 12.4	20.2	16.1 – 24.2	µmol/L	15.5	12.4 – 18.6	41.0	32.8 – 49.2	79.9	63.9 – 95.9
Phosphorus (Phosphomolybdate-UV) (Cartridge-PHS)	mg/dL	1.96	1.76 – 2.16	4.28	3.85 – 4.71	7.78	7.00 – 8.56	mmol/L	0.633	0.570 – 0.696	1.38	1.24 – 1.52	2.51	2.26 – 2.76
Phosphorus (Phosphomolybdate-UV) (Modular-PHOSm)	mg/dL	\$		\$		\$		mmol/L	\$		\$		\$	
Potassium (ISE Indirect)	mEq/L	2.38	2.14 – 2.62	3.92	3.53 – 4.32	7.52	6.77 – 8.27	mmol/L	2.38	2.14 – 2.62	3.92	3.53 – 4.32	7.52	6.77 – 8.27
Prealbumin (Immunoturbidimetric) (1)	mg/dL	16.0	12.8 – 19.2	21.6	17.3 – 25.9	30.6	24.4 – 36.7	mg/L	160	128 – 192	216	173 – 259	306	244 – 367
Protein, Total (Biuret, kinetic) (Modular-TPm)	g/dL	4.09	3.27 – 4.91	5.32	4.26 – 6.39	6.81	5.45 – 8.17	g/L	40.9	32.7 – 49.1	53.2	42.6 – 63.9	68.1	54.5 – 81.7
Protein, Total (Biuret, no serum blank, end point) (Cartridge-TP)	g/dL	4.36	3.49 – 5.24	5.61	4.49 – 6.73	7.25	5.80 – 8.70	g/L	43.6	34.9 – 52.4	56.1	44.9 – 67.3	72.5	58.0 – 87.0
Salicylate (Enzymatic)	mg/dL	7.83	6.27 – 9.40	14.2	11.3 – 17.0	21.1	16.9 – 25.3	mmol/L	0.567	0.454 – 0.681	1.02	0.820 – 1.23	1.53	1.22 – 1.83
Sodium (ISE Indirect)	mEq/L	111	99.8 – 122	138	124 – 152	157	142 – 173	mmol/L	111	99.8 – 122	138	124 – 152	157	142 – 173
Theophylline (Immunoturbidimetric)	µg/mL	4.55	3.64 – 5.46	14.9	11.9 – 17.9	24.6	19.7 – 29.5	µmol/L	25.3	20.2 – 30.3	82.7	66.2 – 99.2	136	109 – 164
Tobramycin (Immunoturbidimetric)	µg/mL	6.80	5.44 – 8.16	4.52	3.62 – 5.43	1.89	1.51 – 2.26	µmol/L	14.5	11.6 – 17.5	9.68	7.74 – 11.6	4.04	3.23 – 4.84
Transferrin (Immunoturbidimetric) (1)	mg/dL	161	129 – 193	201	161 – 241	271	217 – 326	g/L	1.61	1.29 – 1.93	2.01	1.61 – 2.41	2.71	2.17 – 3.26
Triglycerides (Enzymatic, kinetic)	mg/dL	97.1	77.7 – 117	138	110 – 165	212	170 – 254	mmol/L	1.10	0.878 – 1.32	1.56	1.25 – 1.87	2.39	1.92 – 2.87
Urea Nitrogen (BUN) (Conductometry) (Modular-BUNm) (6)	mg/dL	13.9	11.1 – 16.7	37.2	29.7 – 44.6	64.5	51.6 – 77.5	mmol/L	4.97	3.97 – 5.96	13.3	10.6 – 15.9	23.0	18.4 – 27.7
Urea Nitrogen (BUN) (Urease, UV) (Cartridge-BUN) (6)	mg/dL	15.6	12.5 – 18.8	40.8	32.6 – 49.0	70.2	56.1 – 84.2	mmol/L	5.58	4.47 – 6.70	14.6	11.7 – 17.5	25.0	20.0 – 30.1
Uric Acid (Uricase, colorimetric)	mg/dL	3.12	2.49 – 3.74	5.37	4.29 – 6.44	9.28	7.43 – 11.1	µmol/L	185	148 – 222	319	255 – 383	552	442 – 663
Valproic Acid (Immunoturbidimetric)	µg/mL	22.1	17.7 – 26.5	60.3	48.2 – 72.3	102	81.2 – 122	µmol/L	153	122 – 183	418	334 – 501	703	563 – 844
HORIBA ABX PENTRA 400														
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (Modified IFCC) (4)	U/L	29.5	23.6 – 35.4	100	80.3 – 121	233	186 – 279	µmol/L/sec	0.492	0.394 – 0.591	1.68	1.34 – 2.01	3.89	3.11 – 4.67
Albumin (Bromocresol green)	g/dL	2.69	2.15 – 3.22	3.43	2.75 – 4.12	4.35	3.48 – 5.22	g/L	26.9	21.5 – 32.2	34.3	27.5 – 41.2	43.5	34.8 – 52.2
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (4)	U/L	39.9	31.9 – 47.9	178	143 – 214	347	278 – 417	µmol/L/sec	0.666	0.533 – 0.799	2.98	2.38 – 3.57	5.80	4.64 – 6.96
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (Modified IFCC) (4)	U/L	39.5	31.6 – 47.4	109	86.8 – 130	249	200 – 299	µmol/L/sec	0.660	0.528 – 0.792	1.81	1.45 – 2.17	4.17	3.33 – 5.00
Bilirubin, Direct (Diazoization)	mg/dL	0.313	0.251 – 0.376	1.52	1.22 – 1.82	2.74	2.19 – 3.29	µmol/L	5.36	4.29 – 6.43	26.0	20.8 – 31.2	46.9	37.5 – 56.2
Bilirubin, Total (DMSO with blank)	mg/dL	0.633	0.507 – 0.760	3.39	2.71 – 4.07	7.91	6.33 – 9.49	µmol/L	10.8	8.66 – 13.0	57.9	46.4 – 69.5	135	108 – 162
Calcium, Total (o-cresolphthalein complexone)	mg/dL	5.93	5.34 – 6.53	10.6	9.50 – 11.6	14.7	13.2 – 16.1	mmol/L	1.48	1.33 – 1.63	2.64	2.37 – 2.90	3.67	3.30 – 4.03
Carbon Dioxide (CO ₂) (Enzymatic UV)	mEq/L	15.6	12.5 – 18.7	21.7	17.4 – 26.1	28.3	22.7 – 34.0	mmol/L	15.6	12.5 – 18.7	21.7	17.4 – 26.1	28.3	22.7 – 34.0
Chloride (ISE Direct)	mEq/L	74.2	66.8 – 81.7	99.0	89.1 – 109	123	111 – 136	mmol/L	74.2	66.8 – 81.7	99.0	89.1 – 109	123	111 – 136
Cholesterol, High Density Lipoprotein (HDL) (Direct measure, polymer-polyanion)	mg/dL	\$		\$		\$		mmol/L	\$		\$		\$	
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	111	88.4 – 133	177	142 – 212	274	219 – 329	mmol/L	2.86	2.29 – 3.43	4.58	3.67 – 5.50	7.09	5.67 – 8.51
Creatinine (Alkaline picrate-kinetic)	mg/dL	0.660	0.528 – 0.792	1.88	1.50 – 2.25	6.26	5.01 – 7.51	µmol/L	58.3	46.7 – 70.0	166	133 – 199	553	442 – 664
Glucose (Hexokinase) (G-6-PD)	mg/dL	62.3	49.9 – 74.8	124	99.3 – 149	375	300 – 450	mmol/L	3.46	2.77 – 4.15	6.89	5.51 – 8.27	20.8	16.6 – 25.0
Potassium (ISE Direct)	mEq/L	2.53	2.28 – 2.78	3.98	3.58 – 4.38	7.50	6.75 – 8.25	mmol/L	2.53	2.28 – 2.78	3.98	3.58 – 4.38	7.50	6.75 – 8.25
Protein, Total (Biuret)	g/dL	4.28	3.43 – 5.14	5.60	4.48 – 6.72	7.17	5.73 – 8.60	g/L	42.8	34.3 – 51.4	56.0	44.8 – 67.2	71.7	57.3 – 86.0
Sodium (ISE Direct)	mEq/L	111	100 – 123	139	125 – 153	163	147 – 180	mmol/L	111	100 – 123	139	125 – 153	163	147 – 180
Triglycerides (Enzymatic) (GPO/PAP)	mg/dL	95.5	76.4 – 115	135	108 – 162	200	160 – 240	mmol/L	1.08	0.863 – 1.29	1.52	1.22 – 1.83	2.26	1.80 – 2.71
Urea Nitrogen (BUN) (Urease/GLD) (6)	mg/dL	15.1	12.1 – 18.1	40.7	32.6 – 48.9	70.0	56.0 – 83.9	mmol/L	5.38	4.31 – 6.46	14.5	11.6 – 17.5	25.0	20.0 – 30.0
Uric Acid (Uricase)	mg/dL	2.81	2.25 – 3.37	5.23	4.18 – 6.27	9.51	7.61 – 11.4	µmol/L	167	134 – 201	311	249 – 373	565	452 – 679
ORTHO VITROS / VITROS 5,1 FS														
Acetaminophen (Enzymatic, colorimetric)	µg/mL	16.6	13.3 – 19.9	54.4	43.5 – 65.3	160	128 – 192	µmol/L	110	87.8 – 132	360	288 – 431	1058	846 – 1269
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (IFCC 2002) (4)	U/L	42.0	33.6 – 50.4	103	82.2 – 123	217	173 – 260	µmol/L/sec	0.702	0.561 – 0.842	1.72	1.37 – 2.06	3.62	2.90 – 4.35
Albumin (Bromocresol green)	g/dL	2.25	1.80 – 2.70	3.18	2.55 – 3.82	4.22	3.38 – 5.07	g/L	22.5	18.0 – 27.0	31.8	25.5 – 38.2	42.2	33.8 – 50.7
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (4)	U/L	40.8	32.6 – 49.0	163	130 – 195	286	229 – 343	µmol/L/sec	0.681	0.545 – 0.818	2.72	2.18 – 3.26	4.78	3.82 – 5.74
Amylase (Amylopectin, colorimetric) (4)	U/L	<30.0		70.3	56.2 – 84.3	139	111 – 166	µmol/L/sec	<0.501		1.17	0.939 – 1.41	2.32	1.85 – 2.78
Aspartate Aminotransferase (AST/SGOT) (Enzymatic, colorimetric) (IFCC 2002) (4)	U/L	42.9	34.3 – 51.5	117	94.0 – 141	286	229 – 343	µmol/L/sec	0.716	0.573 – 0.859	1.96	1.57 – 2.35	4.78	3.82 – 5.74
Bilirubin, Direct (Spectrophotometric)	mg/dL	0.208	0.075 – 0.341	1.02	0.814 – 1.22	1.60	1.28 – 1.92	µmol/L	3.55	1.28 – 5.83	17.4	13.9 – 20.9	27.4	21.9 – 32.9
Bilirubin, Neonatal (Calculated)	mg/dL	0.297	0.172 – 0.422	3.12	2.50 – 3.75	7.32	5.85 – 8.78	µmol/L	5.08	2.95 – 7.21	53.4	42.7 – 64.1	125	100 – 150
Bilirubin, Total (Diphylline, Diazonium Salt)	mg/dL	0.314	0.192 – 0.437	2.91	2.32 – 3.49	6.71	5.36 – 8.05	µmol/L	5.37	3.28 – 7.47	49.7	39.8 – 59.6	115	91.7 – 138
Calcium, Total (Arsenazo III)	mg/dL	5.93	5.33 – 6.52	10.0	9.01 – 11.0	12.9	11.6 – >14.0	mmol/L	1.48	1.33 – 1.63	2.50	2.25 – 2.75	3.22	2.90 – >3.50
Carbamazepine (EIA)	µg/mL	3.40	<3.00 – 4.08	8.26	6.61 – 9.91	13.1	10.5 – 15.7	µmol/L	14.4	<12.7 – 17.3	34.9	28.0 – 41.9	55.5	44.4 – 66.6
Carbon Dioxide (CO ₂) (Enzymatic)	mEq/L	15.4	12.3 – 18.4	21.2	16.9 – 25.4	27.8	22.2 – 33.4	mmol/L	15.4	12.3 – 18.4	21.2	16.9 – 25.4	27.8	22.2 – 33.4
Chloride (ISE Direct)	mEq/L	75.0	67.5 – 82.5	100	90.2 – 110	124	112 – 136	mmol/L	75.0	67.5 – 82.5	100	90.2 – 110	124	112 – 136
Cholesterol, High Density Lipoprotein (HDL) (Direct, Modified Enzymatic)	mg/dL	26.5	21.2 – 31.8	49.7	39.8 – 59.7	85.6	68.5 – 103	mmol/L	0.687	0.550 – 0.825	1.29	1.03 – 1.55	2.22	1.77 – 2.66
Cholesterol, Low Density Lipoprotein (LDL) (Calculated)	mg/dL	58.9	47.1 – 70.6	93.6	74.9 – 112	144	115 – 173	mmol/L	1.52	1.22 – 1.83	2.42	1.94 – 2.91	3.	

	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range
ORTHO VITROS / VITROS 5,1 FS (continued)														
Urea Nitrogen (BUN) (Urease, colorimetric) (6)	mg/dL	14.5	11.6 – 17.4	36.9	29.5 – 44.3	64.2	51.3 – 77.0	mmol/L	5.17	4.13 – 6.20	13.2	10.5 – 15.8	22.9	18.3 – 27.5
Uric Acid (Uricase, colorimetric)	mg/dL	3.04	2.44 – 3.65	5.46	4.37 – 6.56	9.78	7.82 – 11.7	µmol/L	181	145 – 217	325	260 – 390	582	465 – 698
Valproic Acid (EIA)	µg/mL	16.1	12.9 – 19.3	50.9	40.7 – 61.0	96.1	76.8 – 115	µmol/L	112	89.3 – 134	352	282 – 423	666	533 – 799
POLY-CHEM POLYMEDCO														
Alanine Aminotransferase (ALT/SGPT) (4)	U/L	26.8	21.5 – 32.2	94.3	75.5 – 113	219	175 – 262	µmol/L/sec	0.448	0.358 – 0.538	1.58	1.26 – 1.89	3.65	2.92 – 4.38
Albumin (Bromcresol green)	g/dL	2.77	2.21 – 3.32	3.48	2.79 – 4.18	4.42	3.53 – 5.30	g/L	27.7	22.1 – 33.2	34.8	27.9 – 41.8	44.2	35.3 – 53.0
Alkaline Phosphatase (ALP) (4)	U/L	32.2	25.7 – 38.6	159	127 – 191	306	245 – 367	µmol/L/sec	0.537	0.430 – 0.645	2.66	2.13 – 3.19	5.11	4.09 – 6.13
Aspartate Aminotransferase (AST/SGOT) (4)	U/L	43.7	34.9 – 52.4	121	96.7 – 145	278	223 – 334	µmol/L/sec	0.729	0.583 – 0.875	2.02	1.61 – 2.42	4.65	3.72 – 5.57
Bilirubin, Direct (Diazotization)	mg/dL	0.367	0.235 – 0.499	1.60	1.28 – 1.92	3.18	2.55 – 3.82	µmol/L	6.27	4.01 – 8.53	27.4	21.9 – 32.8	54.4	43.5 – 65.3
Bilirubin, Total (Jendrassik Grof)	mg/dL	0.800	0.640 – 0.960	3.63	2.91 – 4.36	8.42	6.73 – 10.1	µmol/L	13.7	10.9 – 16.4	62.1	49.7 – 74.6	144	115 – 173
Calcium, Total (o-cresolphthalein complexone)	mg/dL	6.07	5.46 – 6.67	10.0	9.00 – 11.0	13.1	11.7 – 14.4	mmol/L	1.52	1.37 – 1.67	2.50	2.25 – 2.75	3.26	2.94 – 3.59
Chloride (ISE Direct)	mEq/L	74.3	66.9 – 81.8	98.3	88.5 – 108	122	110 – 134	mmol/L	74.3	66.9 – 81.8	98.3	88.5 – 108	122	110 – 134
Creatinine (Alkaline picrate-kinetic)	mg/dL	0.700	0.301 – 1.10	1.88	1.49 – 2.28	5.60	4.48 – 6.72	µmol/L	61.9	26.6 – 97.2	166	132 – 201	495	396 – 594
Glucose (Hexokinase)	mg/dL	60.3	48.3 – 72.4	119	94.8 – 142	349	279 – 418	mmol/L	3.35	2.68 – 4.02	6.58	5.26 – 7.89	19.4	15.5 – 23.2
Potassium (ISE Direct)	mEq/L	2.59	2.33 – 2.85	4.03	3.63 – 4.43	7.39	6.65 – 8.13	mmol/L	2.59	2.33 – 2.85	4.03	3.63 – 4.43	7.39	6.65 – 8.13
Sodium (ISE Direct)	mEq/L	114	102 – 125	143	128 – 157	167	150 – 183	mmol/L	114	102 – 125	143	128 – 157	167	150 – 183
Urea Nitrogen (BUN) (Enzymatic UV) (6)	mg/dL	15.0	12.0 – 18.0	39.3	31.5 – 47.2	65.7	52.5 – 78.8	mmol/L	5.36	4.28 – 6.43	14.0	11.2 – 16.9	23.4	18.8 – 28.1
ROCHE / HITACHI COBAS C SYSTEMS														
Acetaminophen (Enzymatic, colorimetric)	µg/mL	10.3	8.20 – 12.3	45.1	36.1 – 54.1	152	122 – 183	µmol/L	67.8	54.2 – 81.3	298	238 – 358	1006	805 – 1207
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (IFCC 2002) (4)	U/L	29.9	23.9 – 35.9	103	82.1 – 123	240	192 – 289	µmol/L/sec	0.499	0.399 – 0.599	1.71	1.37 – 2.06	4.02	3.21 – 4.82
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (IFCC) (4)	U/L	27.4	21.9 – 32.9	96.4	77.1 – 116	224	179 – 269	µmol/L/sec	0.458	0.366 – 0.549	1.61	1.29 – 1.93	3.74	2.99 – 4.49
Albumin (Bromcresol green)	g/dL	2.78	2.22 – 3.33	3.62	2.89 – 4.34	4.62	3.70 – 5.55	g/L	27.8	22.2 – 33.3	36.2	28.9 – 43.4	46.2	37.0 – 55.5
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (4)	U/L	32.9	26.3 – 39.4	144	115 – 173	277	221 – 332	µmol/L/sec	0.549	0.439 – 0.659	2.40	1.92 – 2.88	4.62	3.70 – 5.54
Alpha-Hydroxybutyrate Dehydrogenase (αHBDH) (Standard method opt.) (1) (4)	U/L	\$		\$		\$		µmol/L/sec	\$		\$		\$	
Amylase (G7 PNP, Blocked) (Gen. 2) (4)	U/L	43.6	34.9 – 52.3	131	105 – 157	265	212 – 318	µmol/L/sec	0.728	0.582 – 0.874	2.18	1.75 – 2.62	4.43	3.54 – 5.31
Amylase, Pancreatic (G7 PNP, Blocked) (Enzymatic) (4)	U/L	25.2	20.2 – 30.3	105	83.9 – 126	235	188 – 281	µmol/L/sec	0.422	0.337 – 0.506	1.75	1.40 – 2.10	3.92	3.13 – 4.70
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (IFCC 2002) (4)	U/L	40.9	32.7 – 49.1	117	93.6 – 140	272	218 – 327	µmol/L/sec	0.683	0.546 – 0.819	1.95	1.56 – 2.35	4.55	3.64 – 5.46
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (IFCC 2002) (4)	U/L	38.3	30.6 – 46.0	106	85.1 – 128	248	198 – 297	µmol/L/sec	0.640	0.512 – 0.768	1.78	1.42 – 2.13	4.13	3.31 – 4.96
Bilirubin, Direct (Diazotization)	mg/dL	0.262	0.210 – 0.315	1.29	1.03 – 1.55	2.48	1.98 – 2.97	µmol/L	4.48	3.59 – 5.38	22.1	17.7 – 26.5	42.3	33.9 – 50.8
Bilirubin, Total (Diazonium Ion, Blanked (Roche)) (BILTS)	mg/dL	0.493	0.394 – 0.592	2.86	2.29 – 3.44	6.94	5.55 – 8.33	µmol/L	8.43	6.74 – 10.1	49.0	39.2 – 58.8	119	94.9 – 142
C3 Complement (Immunoturbidimetric) (1)	mg/dL	\$		\$		\$		g/L	\$		\$		\$	
C4 Complement (Immunoturbidimetric) (1)	mg/dL	\$		\$		\$		g/L	\$		\$		\$	
Calcium, Total (o-cresolphthalein complexone)	mg/dL	5.88	5.29 – 6.46	10.1	9.09 – 11.1	13.4	12.1 – 14.7	mmol/L	1.47	1.32 – 1.62	2.53	2.27 – 2.78	3.35	3.01 – 3.68
Carbamazepine (EIA)	µg/mL	4.12	3.30 – 4.95	9.36	7.49 – 11.2	14.5	11.6 – 17.4	µmol/L	17.4	13.9 – 20.9	39.6	31.7 – 47.5	61.3	49.0 – 73.5
Carbon Dioxide (CO2) (Enzymatic)	mEq/L	14.8	11.8 – 17.7	21.0	16.8 – 25.1	27.6	22.1 – 33.1	mmol/L	14.8	11.8 – 17.7	21.0	16.8 – 25.1	27.6	22.1 – 33.1
Chloride (ISE Indirect)	mEq/L	69.1	62.1 – 76.0	95.3	85.8 – 105	121	109 – 133	mmol/L	69.1	62.1 – 76.0	95.3	85.8 – 105	121	109 – 133
Cholesterol, High Density Lipoprotein (HDL) (Direct measure-PEG)	mg/dL	28.2	22.5 – 33.8	49.8	39.8 – 59.7	84.5	67.6 – 101	mmol/L	0.730	0.584 – 0.876	1.29	1.03 – 1.55	2.19	1.75 – 2.63
Cholesterol, Low Density Lipoprotein (LDL) (Direct measure)	mg/dL	59.5	47.6 – 71.4	91.1	72.9 – 109	138	110 – 165	mmol/L	1.54	1.23 – 1.85	2.36	1.89 – 2.83	3.57	2.86 – 4.28
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	113	90.4 – 136	180	144 – 216	275	220 – 330	mmol/L	2.93	2.34 – 3.51	4.66	3.73 – 5.59	7.12	5.69 – 8.54
Creatine Kinase (CK) (NAC activated) (Liquid) (IFCC 2002) (4)	U/L	93.0	74.4 – 112	291	233 – 349	707	565 – 848	µmol/L/sec	1.55	1.24 – 1.86	4.86	3.89 – 5.83	11.8	9.44 – 14.2
Creatinine (Alkaline picrate-kinetic)	mg/dL	0.498	0.398 – 0.598	1.87	1.50 – 2.24	5.87	4.40 – 7.34	µmol/L	44.0	35.2 – 52.8	165	132 – 198	519	389 – 649
Creatinine (Enzymatic)	mg/dL	0.601	0.481 – 0.721	1.98	1.59 – 2.38	6.66	5.32 – 7.99	µmol/L	53.1	42.5 – 63.8	175	140 – 210	588	471 – 706
Digoxin (KIMS)	ng/mL	0.500	0.400 – 0.600	1.67	1.34 – 2.00	2.98	2.38 – 3.58	mmol/L	0.640	0.512 – 0.769	2.14	1.71 – 2.57	3.81	3.05 – 4.58
Ethanol (Enzymatic UV)	mg/dL	19.0	15.2 – 22.8	74.0	59.2 – 88.8	194	155 – 232	mmol/L	4.12	3.30 – 4.95	16.1	12.8 – 19.3	42.0	33.6 – 50.4
Gamma Glutamyltransferase (GGT) (G-glutamyl-carboxy-nitroanilide) (4)	U/L	25.7	20.5 – 30.8	81.3	65.1 – 97.6	122	97.7 – 147	µmol/L/sec	0.429	0.343 – 0.514	1.36	1.09 – 1.63	2.04	1.63 – 2.45
Gamma Glutamyltransferase (GGT) (Gen.2) (IFCC 2002) (Europe/Asia) (4)	U/L	27.8	22.2 – 33.4	85.3	68.3 – 102	139	111 – 166	µmol/L/sec	0.464	0.371 – 0.557	1.42	1.14 – 1.71	2.32	1.85 – 2.78
Gentamicin (KIMS)	µg/mL	2.19	1.76 – 2.63	5.88	4.70 – 7.06	>10.0		µmol/L	4.59	3.67 – 5.50	12.3	9.83 – 14.7	>20.9	
Glucose (Hexokinase) (G6PDH) (Gen.2)	mg/dL	60.9	48.7 – 73.0	120	96.3 – 144	360	288 – 432	mmol/L	3.38	2.70 – 4.05	6.68	5.34 – 8.01	20.0	16.0 – 24.0
Haptoglobin (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	85.7	68.6 – 103	114	91.5 – 137	136	109 – 163	g/L	0.857	0.686 – 1.03	1.14	0.915 – 1.37	1.36	1.09 – 1.63
Immunoglobulin A (IgA) (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	114	91.3 – 137	152	122 – 182	193	154 – 232	g/L	1.14	0.913 – 1.37	1.52	1.22 – 1.82	1.93	1.54 – 2.32
Immunoglobulin G (IgG) (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	564	451 – 677	700	560 – 840	865	692 – 1038	g/L	5.64	4.51 – 6.77	7.00	5.60 – 8.40	8.65	6.92 – 10.4
Immunoglobulin M (IgM) (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	55.9	44.7 – 67.0	67.3	53.9 – 80.8	89.6	71.7 – 108	g/L	0.559	0.447 – 0.670	0.673	0.539 – 0.808	0.896	0.717 – 1.08
Iron (Ferrozine-no deproteinization) (Gen.2)	µg/dL	74.4	59.5 – 89.3	158	126 – 189	241	193 – 290	µmol/L	13.3	10.7 – 16.0	28.3	22.6 – 33.9	43.2	34.6 – 51.8
Iron-Binding Capacity, Total (TIBC) (Calculated) (1)	µg/dL	228	182 – 273	319	255 – 383	417	334 – 500	µmol/L	40.8	32.6 – 48.9	57.1	45.6 – 68.5	74.6	59.7 – 89.6
Iron-Binding Capacity, Unsaturated (UIBC) (Ferrozine) (1)	µg/dL	153	123 – 184	158	127 – 190	174	140 – 209	µmol/L	27.5	22.0 – 32.9	28.4	22.7 – 34.0	31.2	25.0 – 37.5

	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range
ROCHE COBAS INTEGRA (continued)														
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (IFCC) (4)	U/L	30.0	24.0 – 36.0	99.0	79.2 – 119	227	181 – 272	µmol/L/sec	0.501	0.401 – 0.601	1.65	1.32 – 1.98	3.78	3.03 – 4.54
Albumin (Bromocresol green)	g/dL	2.73	2.19 – 3.28	3.52	2.81 – 4.22	4.48	3.59 – 5.38	g/L	27.3	21.9 – 32.8	35.2	28.1 – 42.2	44.8	35.9 – 53.8
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (4)	U/L	33.0	26.4 – 39.6	141	113 – 169	272	218 – 327	µmol/L/sec	0.552	0.441 – 0.662	2.36	1.89 – 2.83	4.55	3.64 – 5.46
Alpha-1-Antitrypsin (Immunoturbidimetric) (Tina-Quant) (1) (4)	mg/dL	78.5	62.8 – 94.2	104	82.8 – 124	129	103 – 154	g/L	0.785	0.628 – 0.942	1.04	0.828 – 1.24	1.29	1.03 – 1.54
Amylase (G7 PNP, Blocked) (4)	U/L	44.7	35.7 – 53.6	131	104 – 157	268	215 – 322	µmol/L/sec	0.746	0.597 – 0.895	2.18	1.74 – 2.62	4.48	3.58 – 5.38
Apolipoprotein A-I (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	\$	\$	\$	\$	\$	\$	g/L	\$	\$	\$	\$	\$	\$
Apolipoprotein B (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	\$	\$	\$	\$	\$	\$	g/L	\$	\$	\$	\$	\$	\$
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (IFCC 2002) (4)	U/L	41.5	33.2 – 49.8	117	93.4 – 140	272	217 – 326	µmol/L/sec	0.693	0.555 – 0.832	1.95	1.56 – 2.34	4.53	3.63 – 5.44
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (IFCC) (4)	U/L	40.8	32.7 – 49.0	112	89.9 – 135	259	207 – 310	µmol/L/sec	0.682	0.546 – 0.818	1.88	1.50 – 2.25	4.32	3.46 – 5.18
Bilirubin, Direct (Diazotization)	mg/dL	0.205	0.164 – 0.246	1.06	0.850 – 1.28	2.08	1.67 – 2.50	µmol/L	3.51	2.80 – 4.21	18.2	14.5 – 21.8	35.6	28.5 – 42.7
Bilirubin, Direct (Diazotization) (Europe/Asia)	mg/dL	0.285	0.228 – 0.342	1.27	1.02 – 1.53	2.42	1.94 – 2.91	µmol/L	4.88	3.90 – 5.85	21.8	17.4 – 26.1	41.5	33.2 – 49.8
Bilirubin, Total (Diazonium Ion, Blanked (Roche)) (BILTS)	mg/dL	\$	\$	\$	\$	\$	\$	µmol/L	\$	\$	\$	\$	\$	\$
C3 Complement (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	97.9	78.3 – 117	126	101 – 151	163	130 – 196	g/L	0.979	0.783 – 1.17	1.26	1.01 – 1.51	1.63	1.30 – 1.96
C4 Complement (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	17.4	13.9 – 20.9	22.1	17.7 – 26.5	28.0	22.4 – 33.6	g/L	0.174	0.139 – 0.209	0.221	0.177 – 0.265	0.280	0.224 – 0.336
Calcium, Total (o-cresolphthalein complexone)	mg/dL	5.74	5.16 – 6.31	9.95	8.96 – 10.9	13.4	12.0 – 14.7	mmol/L	1.43	1.29 – 1.58	2.49	2.24 – 2.74	3.34	3.01 – 3.67
Carbamazepine (Fluorescence Polarization-Roche)	µg/mL	4.08	3.26 – 4.89	9.18	7.34 – 11.0	13.9	11.1 – 16.7	µmol/L	17.2	13.8 – 20.7	38.8	31.0 – 46.6	58.8	47.0 – 70.6
Carbon Dioxide (CO ₂) (Enzymatic) (Liquid)	mEq/L	15.1	12.1 – 18.1	21.2	17.0 – 25.5	27.5	22.0 – 33.0	mmol/L	15.1	12.1 – 18.1	21.2	17.0 – 25.5	27.5	22.0 – 33.0
Chloride (ISE Indirect)	mEq/L	73.5	66.2 – 80.9	99.1	89.2 – 109	124	112 – 136	mmol/L	73.5	66.2 – 80.9	99.1	89.2 – 109	124	112 – 136
Cholesterol, High Density Lipoprotein (HDL) (Direct measure-PEG)	mg/dL	29.6	23.6 – 35.5	52.8	42.3 – 63.4	87.0	69.6 – 104	mmol/L	0.766	0.612 – 0.919	1.37	1.09 – 1.64	2.25	1.80 – 2.70
Cholesterol, Low Density Lipoprotein (LDL) (Enzymatic, colorimetric)	mg/dL	57.4	45.9 – 68.9	86.1	68.9 – 103	128	103 – 154	mmol/L	1.49	1.19 – 1.78	2.23	1.78 – 2.68	3.32	2.65 – 3.98
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	107	85.8 – 129	171	137 – 206	264	212 – 317	mmol/L	2.78	2.22 – 3.33	4.44	3.55 – 5.32	6.85	5.48 – 8.22
Cholinesterase (Butyrylthiocholine (Trinder)) (Gen.2) (Europe) (1) (4)	U/L	4105	3284 – 4926	5808	4647 – 6970	7337	5870 – 8805	µmol/L/sec	68.6	54.8 – 82.3	97.0	77.6 – 116	123	98.0 – 147
Creatine Kinase (CK) (NAC activated) (IFCC) (4)	U/L	85.8	68.6 – 103	276	221 – 331	681	545 – 817	µmol/L/sec	1.43	1.15 – 1.72	4.61	3.68 – 5.53	11.4	9.09 – 13.6
Creatinine (Alkaline picrate-kinetic, IFCC-IDMS Standardized)	mg/dL	0.507	0.405 – 0.608	1.72	1.38 – 2.07	5.76	4.61 – 6.91	µmol/L	44.8	35.8 – 53.8	152	122 – 183	509	407 – 611
Creatinine (Enzymatic IFCC-IDMS Standardized) (CREP2)	mg/dL	0.543	0.435 – 0.652	1.82	1.46 – 2.19	6.19	4.95 – 7.42	µmol/L	48.0	38.4 – 57.6	161	129 – 193	547	437 – 656
Digoxin (KIMS)	ng/mL	0.575	0.460 – 0.690	1.69	1.35 – 2.03	2.94	2.35 – 3.52	nmol/L	0.736	0.589 – 0.883	2.16	1.73 – 2.60	3.76	3.01 – 4.51
Ethanol (Enzymatic UV) (GEN.2)	mg/dL	20.3	16.0 – 24.6	73.8	59.0 – 88.5	185	148 – 222	mmol/L	4.41	3.48 – 5.33	16.0	12.8 – 19.2	40.1	32.1 – 48.1
Gamma Glutamyltransferase (GGT) (G-glutamyl-carboxy-nitroanilide) (4)	U/L	24.1	19.3 – 29.0	76.5	61.2 – 91.8	118	94.7 – 142	µmol/L/sec	0.403	0.322 – 0.483	1.28	1.02 – 1.53	1.98	1.58 – 2.37
Gamma Glutamyltransferase (GGT) (G-glutamyl-carboxy-nitroanilide) (IFCC 2002) (4)	U/L	29.3	23.4 – 35.2	88.2	70.6 – 106	136	108 – 163	µmol/L/sec	0.489	0.392 – 0.587	1.47	1.18 – 1.77	2.26	1.81 – 2.72
Gentamicin (Fluorescence Polarization-Roche)	µg/mL	2.07	1.65 – 2.48	5.54	4.44 – 6.65	>10.0		µmol/L	4.32	3.46 – 5.19	11.6	9.27 – 13.9	>20.9	
Glucose (Hexokinase) (G6PDH)	mg/dL	62.0	49.6 – 74.4	121	97.1 – 146	363	291 – 436	mmol/L	3.44	2.75 – 4.13	6.74	5.39 – 8.09	20.2	16.1 – 24.2
Haptoglobin (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	82.2	65.7 – 98.6	103	82.3 – 123	122	97.6 – 146	g/L	0.822	0.657 – 0.986	1.03	0.823 – 1.23	1.22	0.976 – 1.46
Immunoglobulin A (IgA) (Immunoturbidimetric) (1)	mg/dL	119	95.5 – 143	155	124 – 186	199	159 – 239	g/L	1.19	0.955 – 1.43	1.55	1.24 – 1.86	1.99	1.59 – 2.39
Immunoglobulin G (IgG) (Immunoturbidimetric) (1)	mg/dL	608	486 – 730	756	605 – 907	963	771 – 1156	g/L	6.08	4.86 – 7.30	7.56	6.05 – 9.07	9.63	7.71 – 11.6
Immunoglobulin M (IgM) (Immunoturbidimetric) (1)	mg/dL	58.5	46.8 – 70.2	68.3	54.7 – 82.0	92.7	74.1 – 111	g/L	0.585	0.468 – 0.702	0.683	0.547 – 0.820	0.927	0.741 – 1.11
Iron (Ferrozine-no deproteinization)	µg/dL	72.8	58.2 – 87.4	157	125 – 188	238	190 – 286	µmol/L	13.0	10.4 – 15.6	28.0	22.4 – 33.7	42.6	34.1 – 51.1
Lactate (Lactic Acid) (Enzymatic) (Gen.2)	mg/dL	15.1	12.1 – 18.2	32.3	25.8 – 38.7	55.4	44.3 – 66.5	mmol/L	1.68	1.35 – 2.02	3.58	2.87 – 4.30	6.15	4.92 – 7.38
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (Gen.2) (4)	U/L	115	91.8 – 138	165	132 – 197	377	302 – 452	µmol/L/sec	1.92	1.53 – 2.30	2.75	2.20 – 3.30	6.29	5.04 – 7.55
Lipase (Enzymatic, colorimetric) (4)	U/L	25.9	20.7 – 31.1	47.0	37.6 – 56.4	138	110 – 165	µmol/L/sec	0.433	0.346 – 0.519	0.785	0.628 – 0.942	2.30	1.84 – 2.76
Lithium (ISE Direct)	mEq/L	0.557	0.501 – 0.612	1.36	1.22 – 1.49	1.99	1.79 – 2.19	mmol/L	0.557	0.501 – 0.612	1.36	1.22 – 1.49	1.99	1.79 – 2.19
Magnesium (Chlorophosphonazo III)	mg/dL	1.15	0.975 – 1.32	2.62	2.23 – 3.01	3.89	3.30 – 4.47	mmol/L	0.472	0.401 – 0.542	1.08	0.916 – 1.24	1.60	1.36 – 1.84
Phenobarbital (Fluorescence Polarization-Roche)	µg/mL	8.93	7.14 – 10.7	29.6	23.7 – 35.6	>60.0		µmol/L	38.5	30.8 – 46.2	128	102 – 153	>259	
Phenytoin (Fluorescence Polarization-Roche)	µg/mL	4.29	3.43 – 5.14	10.8	8.62 – 12.9	21.3	17.0 – 25.6	µmol/L	17.0	13.6 – 20.4	42.7	34.1 – 51.2	84.4	67.5 – 101
Phosphorus (Phosphomolybdate-UV)	mg/dL	1.86	1.67 – 2.04	4.05	3.64 – 4.45	7.19	6.47 – 7.91	mmol/L	0.599	0.539 – 0.659	1.31	1.18 – 1.44	2.32	2.09 – 2.55
Potassium (ISE Indirect)	mEq/L	2.50	2.25 – 2.75	3.97	3.57 – 4.37	7.54	6.78 – 8.29	mmol/L	2.50	2.25 – 2.75	3.97	3.57 – 4.37	7.54	6.78 – 8.29
Protein, Total (Biuret, serum blank, end point)	g/dL	4.18	3.34 – 5.01	5.36	4.29 – 6.43	6.88	5.50 – 8.25	g/L	41.8	33.4 – 50.1	53.6	42.9 – 64.3	68.8	55.0 – 82.5
Salicylate (Enzymatic)	mg/dL	6.23	4.98 – 7.47	11.8	9.40 – 14.1	17.4	13.9 – 20.9	mmol/L	0.451	0.361 – 0.541	0.851	0.681 – 1.02	1.26	1.01 – 1.51
Sodium (ISE Indirect)	mEq/L	110	99.4 – 121	137	123 – 151	157	141 – 172	mmol/L	110	99.4 – 121	137	123 – 151	157	141 – 172
Theophylline (Fluorescence Polarization-Roche)	µg/mL	4.86	3.89 – 5.84	15.7	12.6 – 18.8	25.4	20.3 – 30.5	µmol/L	27.0	21.6 – 32.4	87.1	69.7 – 105	141	113 – 169
Tobramycin (Fluorescence Polarization-Roche)	µg/mL	5.11	4.09 – 6.13	3.27	2.61 – 3.92	1.28	1.03 – 1.54	µmol/L	10.9	8.75 – 13.1	6.99	5.59 – 8.38	2.74	2.20 – 3.29
Transferrin (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	179	143 – 215	226	181 – 271	307	245 – 368	g/L	1.79	1.43 – 2.15	2.26	1.81 – 2.71	3.07	2.45 – 3.68
Triglycerides (Enzymatic, Endpoint) (GPO/PAP)	mg/dL	93.4	74.7 – 112	129	103 – 155	192	154 – 230	mmol/L	1.06	0.844 – 1.27	1.46	1.17 – 1.75	2.17	1.74 – 2.60

	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range
ROCHE HITACHI / MODULAR (continued)														
Chloride (ISE Indirect)	mEq/L	71.2	64.1 – 78.3	97.2	87.5 – 107	121	109 – 133	mmol/L	71.2	64.1 – 78.3	97.2	87.5 – 107	121	109 – 133
Chloride (ISE Indirect) (Europe/Asia)	mEq/L	72.5	65.2 – 79.7	99.5	89.5 – 109	125	113 – 138	mmol/L	72.5	65.2 – 79.7	99.5	89.5 – 109	125	113 – 138
Cholesterol, High Density Lipoprotein (HDL) (Direct measure-PEG) (Gen.3)	mg/dL	29.3	23.4 – 35.1	52.3	41.8 – 62.7	90.1	72.1 – 108	mmol/L	0.758	0.607 – 0.910	1.35	1.08 – 1.62	2.33	1.87 – 2.80
Cholesterol, Low Density Lipoprotein (LDL) (Direct measure)	mg/dL	58.7	47.0 – 70.5	89.3	71.4 – 107	134	107 – 161	mmol/L	1.52	1.22 – 1.83	2.31	1.85 – 2.78	3.47	2.78 – 4.16
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase) (CHOD/PAP)	mg/dL	107	85.2 – 128	173	138 – 207	267	213 – 320	mmol/L	2.76	2.21 – 3.31	4.47	3.57 – 5.36	6.91	5.52 – 8.29
Creatine Kinase (CK) (NAC activated) (4)	U/L	92.5	74.0 – 111	280	224 – 336	677	541 – 812	µmol/L/sec	1.54	1.24 – 1.85	4.68	3.74 – 5.61	11.3	9.04 – 13.6
Creatine Kinase (CK) (NAC activated) (IFCC 2002) (4)	U/L	93.9	75.2 – 113	282	225 – 338	679	543 – 815	µmol/L/sec	1.57	1.26 – 1.88	4.70	3.76 – 5.64	11.3	9.07 – 13.6
Creatinine (Alkaline picrate-kinetic, IFCC-IDMS Standardized)	mg/dL	0.500	0.400 – 0.600	1.85	1.48 – 2.22	6.42	5.13 – 7.70	µmol/L	44.2	35.4 – 53.0	164	131 – 196	567	454 – 681
Creatinine (Alkaline picrate-kinetic, IFCC-IDMS Standardized) (Europe/Asia)	mg/dL	0.527	0.421 – 0.632	1.93	1.54 – 2.31	6.48	5.18 – 7.77	µmol/L	46.6	37.3 – 55.9	170	136 – 204	573	458 – 687
Creatinine (Enzymatic IFCC-IDMS Standardized)	mg/dL	0.588	0.470 – 0.705	1.95	1.56 – 2.34	6.59	5.27 – 7.90	µmol/L	51.9	41.6 – 62.3	172	138 – 206	582	466 – 699
Digoxin (Immunoturbidimetric)	ng/mL	0.524	0.419 – 0.629	1.77	1.41 – 2.12	3.22	2.58 – 3.86	nmol/L	0.671	0.537 – 0.805	2.26	1.81 – 2.72	4.12	3.30 – 4.95
Ethanol (Enzymatic UV)	mg/dL	19.5	15.6 – 23.4	75.8	60.7 – 91.0	196	157 – 235	mmol/L	4.23	3.39 – 5.08	16.5	13.2 – 19.7	42.6	34.1 – 51.1
Gamma Glutamyltransferase (GGT) (G-glutamyl-carboxy-nitroanilide) (4)	U/L	26.5	21.2 – 31.8	80.5	64.4 – 96.6	125	100 – 150	µmol/L/sec	0.443	0.354 – 0.531	1.34	1.08 – 1.61	2.09	1.67 – 2.51
Gamma Glutamyltransferase (GGT) (G-glutamyl-carboxy-nitroanilide) (IFCC 2002) (4)	U/L	29.4	23.5 – 35.2	90.8	72.7 – 109	141	113 – 169	µmol/L/sec	0.490	0.392 – 0.589	1.52	1.21 – 1.82	2.36	1.89 – 2.83
Gentamicin (EIA)	µg/mL	2.10	1.68 – 2.52	5.79	4.63 – 6.95	11.2	8.93 – >12.0	µmol/L	4.38	3.51 – 5.26	12.1	9.69 – 14.5	23.3	18.7 – >25.1
Glucose (Hexokinase)	mg/dL	62.9	50.3 – 75.4	125	100 – 150	376	301 – 451	mmol/L	3.49	2.79 – 4.19	6.94	5.55 – 8.33	20.9	16.7 – 25.1
Haptoglobin (Immunoturbidimetric) (1)	mg/dL	81.4	65.1 – 97.7	108	86.4 – 130	128	102 – 154	g/L	0.814	0.651 – 0.977	1.08	0.864 – 1.30	1.28	1.02 – 1.54
Immunoglobulin A (IgA) (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	119	95.3 – 143	154	124 – 185	196	157 – 235	g/L	1.19	0.953 – 1.43	1.54	1.24 – 1.85	1.96	1.57 – 2.35
Immunoglobulin G (IgG) (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	560	448 – 671	708	566 – 849	890	712 – 1068	g/L	5.60	4.48 – 6.71	7.08	5.66 – 8.49	8.90	7.12 – 10.7
Immunoglobulin M (IgM) (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	64.2	51.4 – 77.1	74.4	59.5 – 89.2	99.1	79.3 – 119	g/L	0.642	0.514 – 0.771	0.744	0.595 – 0.892	0.991	0.793 – 1.19
Iron (Ferrozine-no deproteinization)	µg/dL	73.0	58.4 – 87.6	155	124 – 186	236	189 – 283	µmol/L	13.1	10.5 – 15.7	27.8	22.2 – 33.3	42.3	33.8 – 50.7
Iron-Binding Capacity, Total (TIBC) (1)	µg/dL	227	182 – 273	317	253 – 380	411	329 – 493	µmol/L	40.7	32.6 – 48.8	56.7	45.3 – 68.0	73.5	58.8 – 88.3
Iron-Binding Capacity, Unsaturated (UIBC) (Ferrozine) (1)	µg/dL	154	123 – 184	160	128 – 192	174	139 – 208	µmol/L	27.5	22.0 – 33.0	28.7	22.9 – 34.4	31.1	24.9 – 37.3
Lactate (Lactic Acid) (Enzymatic)	mg/dL	14.7	11.7 – 17.6	31.4	25.1 – 37.7	54.1	43.3 – 65.0	mmol/L	1.63	1.30 – 1.95	3.49	2.79 – 4.18	6.01	4.81 – 7.21
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (IFCC 2002) (4)	U/L	113	90.5 – 136	165	132 – 198	379	303 – 455	µmol/L/sec	1.89	1.51 – 2.27	2.75	2.20 – 3.30	6.33	5.07 – 7.60
Lipase (Enzymatic, colorimetric) (4)	U/L	25.3	20.2 – 30.4	45.1	36.0 – 54.1	130	104 – 156	µmol/L/sec	0.423	0.338 – 0.507	0.753	0.602 – 0.903	2.17	1.74 – 2.60
Magnesium (Xylylidi blue)	mg/dL	1.14	0.970 – 1.31	2.69	2.28 – 3.09	4.14	3.52 – 4.76	mmol/L	0.469	0.399 – 0.540	1.11	0.939 – 1.27	1.70	1.45 – 1.96
Phenobarbital (EIA)	µg/mL	9.02	7.21 – 10.8	30.6	24.5 – 36.7	60.7	48.5 – 72.8	µmol/L	38.9	31.1 – 46.6	132	106 – 158	261	209 – 314
Phenytoin (EIA)	µg/mL	3.65	2.92 – 4.38	10.1	8.07 – 12.1	19.4	15.5 – 23.3	µmol/L	14.4	11.6 – 17.3	40.0	32.0 – 48.0	76.8	61.4 – 92.1
Phosphorus (Phosphomolybdate-UV)	mg/dL	1.85	1.67 – 2.04	4.02	3.62 – 4.42	7.17	6.46 – 7.89	mmol/L	0.599	0.539 – 0.659	1.30	1.17 – 1.43	2.32	2.09 – 2.55
Potassium (ISE Indirect)	mEq/L	2.42	2.18 – 2.66	3.92	3.53 – 4.31	7.50	6.75 – 8.25	mmol/L	2.42	2.18 – 2.66	3.92	3.53 – 4.31	7.50	6.75 – 8.25
Potassium (ISE Indirect) (Europe/Asia)	mEq/L	2.50	2.25 – 2.75	3.97	3.57 – 4.37	7.51	6.76 – 8.26	mmol/L	2.50	2.25 – 2.75	3.97	3.57 – 4.37	7.51	6.76 – 8.26
Protein, Total (Biuret, serum blank, end point)	g/dL	4.25	3.40 – 5.10	5.42	4.34 – 6.51	6.91	5.53 – 8.29	g/L	42.5	34.0 – 51.0	54.2	43.4 – 65.1	69.1	55.3 – 82.9
Salicylate (Colorimetric)	mg/dL	7.85	5.81 – 9.89	15.0	11.9 – 18.2	22.9	18.3 – 27.5	mmol/L	0.568	0.421 – 0.716	1.09	0.860 – 1.32	1.66	1.33 – 1.99
Sodium (ISE Indirect)	mEq/L	111	99.5 – 122	138	124 – 152	159	143 – 175	mmol/L	111	99.5 – 122	138	124 – 152	159	143 – 175
Sodium (ISE Indirect) (Europe/Asia)	mEq/L	113	102 – 124	140	126 – 154	160	144 – 176	mmol/L	113	102 – 124	140	126 – 154	160	144 – 176
Theophylline (KIMS)	µg/mL	4.54	3.64 – 5.45	14.6	11.7 – 17.5	23.0	18.4 – 27.6	µmol/L	25.2	20.2 – 30.3	81.2	64.9 – 97.4	128	102 – 153
Tobramycin (EIA)	µg/mL	6.15	4.92 – 7.38	4.08	3.27 – 4.90	2.07	1.66 – 2.49	µmol/L	13.2	10.5 – 15.8	8.74	6.99 – 10.5	4.44	3.55 – 5.32
Transferrin (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	179	144 – 215	221	177 – 266	294	235 – 353	g/L	1.79	1.44 – 2.15	2.21	1.77 – 2.66	2.94	2.35 – 3.53
Triglycerides (Enzymatic, Endpoint)	mg/dL	93.5	74.8 – 112	134	107 – 160	203	163 – 244	mmol/L	1.06	0.845 – 1.27	1.51	1.21 – 1.81	2.30	1.84 – 2.76
Urea (Urease, UV) (GLDH) (6)	mg/dL	32.7	26.2 – 39.2	85.4	68.3 – 102	145	116 – 175	mmol/L	5.44	4.36 – 6.53	14.2	11.4 – 17.1	24.2	19.4 – 29.1
Urea Nitrogen (BUN) (Urease, UV) (GLDH) (Kinetic) (6)	mg/dL	15.3	12.2 – 18.3	40.4	32.3 – 48.5	68.9	55.1 – 82.7	mmol/L	5.44	4.36 – 6.53	14.4	11.5 – 17.3	24.6	19.7 – 29.5
Uric Acid (Uricase, colorimetric)	mg/dL	3.30	2.64 – 3.96	5.80	4.64 – 6.96	10.2	8.17 – 12.3	µmol/L	196	157 – 235	345	276 – 414	607	486 – 729
Valproic Acid (EIA)	µg/mL	23.3	18.6 – 27.9	61.2	49.0 – 73.5	103	82.4 – 124	µmol/L	161	129 – 193	424	339 – 509	714	571 – 857
SIEMENS ADVIA CENTAUR / CENTAUR XP														
Carbamazepine (CARB)	µg/mL	4.11	3.29 – 4.93	9.00	7.20 – 10.8	13.7	11.0 – 16.5	µmol/L	17.4	13.9 – 20.8	38.0	30.4 – 45.7	58.1	46.5 – 69.7
Cortisol (CØR)	µg/dL	8.13	6.50 – 9.75	18.6	14.9 – 22.3	41.6	33.3 – 49.9	nmol/L	224	179 – 269	513	411 – 616	1149	919 – 1378
Digoxin (DIG)	ng/mL	0.449	0.359 – 0.539	1.74	1.39 – 2.09	2.95	2.36 – 3.53	nmol/L	0.575	0.460 – 0.690	2.22	1.78 – 2.67	3.77	3.02 – 4.52
Ferritin (FER) (1)	ng/mL	36.3	29.1 – 43.6	65.4	52.4 – 78.5	59.3	47.5 – 71.2	µg/L	36.3	29.1 – 43.6	65.4	52.4 – 78.5	59.3	47.5 – 71.2
Gentamicin (GENT)	µg/mL	2.02	1.62 – 2.42	5.67	4.53 – 6.80	>12.0		µmol/L	4.22	3.38 – 5.07	11.8	9.47 – 14.2	>25.1	
Phenobarbital (PHNB)	µg/mL	9.61	7.68 – 11.5	31.5	25.2 – 37.8	67.4	53.9 – >80.0	µmol/L	41.4	33.1 – 49.7	136	109 – 163	291	232 – >345
Phenytoin (PHTN)	µg/mL	4.63	3.70 – 5.56	12.0	9.61 – 14.4	24.5	19.6 – 29.5	µmol/L	18.3	14.7 – 22.0	47.6	38.1 – 57.1	97.2	77.8 – 117
T3 Total (T3)	ng/mL	0.853	0.682 – 1.02	1.85	1.48 – 2.22	2.52	2.01 – 3.02	nmol/L	1.31	1.05 – 1.58	2.85	2.28 – 3.42	3.87	3.10 – 4.65
T3 Uptake / T-Uptake (TUp)	% Uptake	42.4	34.0 – 50.9	35.7	28.6 – 42.8	31.9	25.5 – 38.2	% Uptake	42.4	34.0 – 50.9				

	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range
SIEMENS ADVIA CHEMISTRY SYSTEMS														
Acetaminophen (Enzymatic) (ACET)	µg/mL	15.6	12.5 – 18.7	51.0	40.8 – 61.2	168	134 – 202	µmol/L	103	82.4 – 124	337	270 – 404	1111	889 – 1333
Acid Phosphatase, Non-Prostatic (ACP NP) (4)	U/L	4.62	3.00 – 6.23	3.59	2.33 – 4.84	3.96	2.57 – 5.35	µmol/L/sec	0.077	0.050 – 0.104	0.060	0.039 – 0.081	0.066	0.043 – 0.089
Acid Phosphatase, Total (ACP) (4)	U/L	11.6	7.55 – 15.7	20.6	13.4 – 27.7	42.6	27.7 – 57.5	µmol/L/sec	0.194	0.126 – 0.262	0.343	0.223 – 0.463	0.711	0.462 – 0.960
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (ALTP5P, ALT_P_c) (Modified IFCC) (4)	U/L	30.0	24.0 – 36.1	97.9	78.4 – 118	227	182 – 272	µmol/L/sec	0.502	0.401 – 0.602	1.64	1.31 – 1.96	3.79	3.03 – 4.55
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (ALT, ALT_c) (Modified IFCC) (4)	U/L	31.7	25.4 – 38.1	101	81.1 – 122	232	185 – 278	µmol/L/sec	0.530	0.424 – 0.636	1.69	1.35 – 2.03	3.87	3.10 – 4.64
Albumin (Bromocresol green) (ALB, ALB_c)	g/dL	2.62	2.10 – 3.15	3.39	2.71 – 4.06	4.36	3.48 – 5.23	g/L	26.2	21.0 – 31.5	33.9	27.1 – 40.6	43.6	34.8 – 52.3
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (ALPAMP) (4)	U/L	34.4	27.5 – 41.3	174	139 – 208	343	274 – 412	µmol/L/sec	0.575	0.460 – 0.690	2.90	2.32 – 3.48	5.73	4.58 – 6.88
Alkaline Phosphatase (ALP) (PNPP, DEA Buffer) (ALPDEA) (4)	U/L	72.5	58.0 – 86.9	224	179 – 269	364	291 – 436	µmol/L/sec	1.21	0.968 – 1.45	3.74	3.00 – 4.49	6.07	4.86 – 7.28
Amylase (G7 PNP, Blocked) (AMYLAS) (4)	U/L	42.9	34.3 – 51.5	132	106 – 159	273	219 – 328	µmol/L/sec	0.717	0.573 – 0.860	2.21	1.77 – 2.65	4.57	3.65 – 5.48
Amylase, Pancreatic (G7 PNP, Blocked) (PAMY) (4)	U/L	26.6	21.3 – 31.9	108	86.6 – 130	243	194 – 291	µmol/L/sec	0.444	0.355 – 0.532	1.81	1.45 – 2.17	4.05	3.24 – 4.86
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (ASTP5P, ASTP_c) (Modified IFCC) (4)	U/L	41.7	33.4 – 50.1	114	91.4 – 137	267	214 – 320	µmol/L/sec	0.697	0.557 – 0.836	1.91	1.53 – 2.29	4.46	3.57 – 5.35
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (AST, AST_c) (Modified IFCC) (4)	U/L	45.2	36.2 – 54.2	117	93.8 – 141	267	214 – 321	µmol/L/sec	0.755	0.604 – 0.906	1.96	1.57 – 2.35	4.46	3.57 – 5.36
Bilirubin, Direct (Vanadate Oxidation) (DBIL_2)	mg/dL	0.342	0.205 – 0.479	1.48	0.887 – 2.07	2.74	2.20 – 3.29	µmol/L	5.85	3.51 – 8.20	25.3	15.2 – 35.4	46.9	37.5 – 56.3
Bilirubin, Total (Vanadate Oxidation) (TBIL_2)	mg/dL	0.662	0.397 – 0.926	3.32	2.65 – 3.98	7.69	6.15 – 9.23	µmol/L	11.3	6.79 – 15.8	56.7	45.4 – 68.1	132	105 – 158
Calcium, Total (Arsenazo III) (CA_2, CA_2c)	mg/dL	6.36	4.77 – 7.95	10.1	7.59 – 12.7	13.2	10.6 – 15.8	mmol/L	1.59	1.19 – 1.99	2.53	1.90 – 3.16	3.30	2.64 – 3.96
Calcium, Total (o-cresolphthalein complexone) (CA, CA_c)	mg/dL	5.78	4.33 – 7.22	9.79	7.34 – 12.2	13.0	11.7 – 14.3	mmol/L	1.44	1.08 – 1.80	2.45	1.84 – 3.06	3.25	2.92 – 3.58
Carbamazepine (EIA) (CARB_2)	µg/mL	4.03	2.82 – 5.23	9.59	7.68 – 11.5	14.4	11.5 – 17.3	µmol/L	17.0	11.9 – 22.1	40.6	32.5 – 48.7	60.9	48.7 – 73.1
Carbon Dioxide (CO ₂) (Enzymatic) (CO2_L)	mEq/L	15.2	12.1 – 18.2	21.8	17.4 – 26.1	28.1	22.5 – 33.7	mmol/L	15.2	12.1 – 18.2	21.8	17.4 – 26.1	28.1	22.5 – 33.7
Chloride (ISE Indirect) (CL)	mEq/L	74.5	67.0 – 81.9	99.4	89.4 – 109	122	110 – 134	mmol/L	74.5	67.0 – 81.9	99.4	89.4 – 109	122	110 – 134
Cholesterol, High Density Lipoprotein (HDL) (Direct measure) (D-HDL)	mg/dL	29.2	23.4 – 35.0	48.4	38.8 – 58.1	87.9	70.3 – 106	mmol/L	0.756	0.605 – 0.908	1.25	1.00 – 1.51	2.28	1.82 – 2.73
Cholesterol, Low Density Lipoprotein (LDL) (Direct measure) (LDLD)	mg/dL	63.9	51.2 – 76.7	87.1	69.7 – 105	138	110 – 165	mmol/L	1.66	1.32 – 1.99	2.26	1.80 – 2.71	3.57	2.85 – 4.28
Cholesterol, Total (CHOL_2, CHOL_c)	mg/dL	106	85.0 – 127	175	140 – 210	272	217 – 326	mmol/L	2.75	2.20 – 3.30	4.53	3.62 – 5.43	7.03	5.63 – 8.44
Cholinesterase (Butyrylthiocholine (Trinder)) (CHE) (1) (4)	U/L	5268	4214 – 6322	7681	6145 – 9217	9895	7916 – 11874	µmol/L/sec	88.0	70.4 – 106	128	103 – 154	165	132 – 198
Cholinesterase (Butyrylthiocholine (Trinder)) (CHE) (DGKC94) (1) (4)	U/L	4794	3836 – 5753	6990	5592 – 8389	9004	7203 – 10805	µmol/L/sec	80.1	64.1 – 96.1	117	93.4 – 140	150	120 – 180
Creatine Kinase (CK) (CKNAC) (4)	U/L	89.3	71.4 – 107	274	219 – 328	657	526 – 789	µmol/L/sec	1.49	1.19 – 1.79	4.57	3.66 – 5.49	11.0	8.78 – 13.2
Creatine Kinase (CK) (CKNAC) (IFCC 2002) (4)	U/L	90.3	72.3 – 108	278	222 – 333	667	534 – 800	µmol/L/sec	1.51	1.21 – 1.81	4.63	3.71 – 5.56	11.1	8.91 – 13.4
Creatinine (Enzymatic) (ECRE_2)	mg/dL	0.512	0.410 – 0.615	1.80	1.44 – 2.17	6.39	5.11 – 7.67	µmol/L	45.3	36.2 – 54.4	159	127 – 192	565	452 – 678
Creatinine (Jaffe, rate blank corrected) (CREA_2, CRE_2c)	mg/dL	0.505	0.404 – 0.606	1.90	1.52 – 2.28	6.42	5.13 – 7.70	µmol/L	44.6	35.7 – 53.5	168	134 – 201	567	454 – 681
Digoxin (Immunoturbidimetric) (DIG)	ng/mL	0.296	0.163 – 0.429	1.75	1.31 – 2.19	2.84	2.13 – 3.55	nmol/L	0.378	0.208 – 0.549	2.24	1.68 – 2.80	3.64	2.73 – 4.55
Ethanol (Enzymatic UV) (ETOH_2)	mg/dL	23.5	18.6 – 28.5	79.7	63.8 – 95.7	202	162 – 242	mmol/L	5.11	4.04 – 6.18	17.3	13.8 – 20.8	43.8	35.1 – 52.6
Gamma Glutamyltransferase (GGT) (IFCC 2002) (4)	U/L	27.9	22.3 – 33.5	86.8	69.4 – 104	136	109 – 163	µmol/L/sec	0.466	0.373 – 0.559	1.45	1.16 – 1.74	2.27	1.81 – 2.72
Gentamicin (EIA) (GENT_2)	µg/mL	1.77	1.32 – 2.21	5.23	4.18 – 6.28	11.1	8.30 – 13.8	µmol/L	3.70	2.76 – 4.62	10.9	8.74 – 13.1	23.1	17.3 – 28.9
Glucose (GLUO)	mg/dL	59.1	47.3 – 70.9	118	94.1 – 141	363	291 – 436	mmol/L	3.28	2.63 – 3.93	6.53	5.22 – 7.84	20.2	16.1 – 24.2
Glucose (Hexokinase) (GLUH, GLUH_c, GLUH_3)	mg/dL	60.7	48.5 – 70.9	120	96.1 – 144	361	289 – 433	mmol/L	3.37	2.69 – 4.04	6.66	5.33 – 8.00	20.0	16.0 – 24.1
Immunoglobulin A (IgA) (Immunoturbidimetric) (IGA_2) (1)	mg/dL	143	115 – 172	185	148 – 222	235	188 – 281	g/L	1.43	1.15 – 1.72	1.85	1.48 – 2.22	2.35	1.88 – 2.81
Immunoglobulin G (IgG) (Immunoturbidimetric) (IGG_2) (1)	mg/dL	604	483 – 724	756	604 – 907	949	759 – 1139	g/L	6.04	4.83 – 7.24	7.56	6.04 – 9.07	9.49	7.59 – 11.4
Immunoglobulin M (IgM) (Immunoturbidimetric) (IGM_2) (1)	mg/dL	84.5	67.6 – 101	102	81.8 – 123	135	108 – 162	g/L	0.845	0.676 – 1.01	1.02	0.818 – 1.23	1.35	1.08 – 1.62
Iron (Ferrozine–no deproteination) (IRON_2)	µg/dL	73.8	59.0 – 88.6	158	127 – 190	240	192 – 288	µmol/L	13.2	10.6 – 15.9	28.4	22.7 – 34.0	43.0	34.4 – 51.6
Iron-Binding Capacity, Total (TIBC) (Ferric chloride, alumina) (TIBC) (1)	µg/dL	242	193 – 290	318	255 – 382	384	307 – 461	µmol/L	43.3	34.6 – 51.9	57.0	45.6 – 68.3	68.7	55.0 – 82.5
Lactate (Lactic Acid) (Lactate to Pyruvate) (LAC)	mg/dL	13.4	10.7 – 16.1	30.3	24.3 – 36.4	54.9	43.9 – 65.9	mmol/L	1.49	1.19 – 1.79	3.36	2.69 – 4.04	6.10	4.88 – 7.32
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (LDLP) (IFCC 2002) (4)	U/L	113	90.2 – 135	169	135 – 202	388	310 – 465	µmol/L/sec	1.88	1.51 – 2.26	2.82	2.25 – 3.38	6.48	5.18 – 7.77
Lactate Dehydrogenase (LDH) (Pyruvate to lactate) (LDPL) (4)	U/L	217	174 – 260	327	262 – 393	773	618 – 927	µmol/L/sec	3.62	2.90 – 4.35	5.47	4.37 – 6.56	12.9	10.3 – 15.5
Lipase (Enzymatic, colorimetric) (LIP) (4)	U/L	23.5	18.1 – 28.9	53.4	42.7 – 64.0	179	143 – 215	µmol/L/sec	0.392	0.302 – 0.482	0.891	0.713 – 1.07	2.99	2.39 – 3.59
Lithium (Colorimetric) (LITH)	mEq/L	0.564	0.508 – 0.620	1.34	1.20 – 1.47	1.94	1.75 – 2.14	mmol/L	0.564	0.508 – 0.620	1.34	1.20 – 1.47	1.94	1.75 – 2.14
Magnesium (Xylylidi blue) (MG, MG_c)	mg/dL	1.15	0.979 – 1.32	2.75	2.34 – 3.16	4.23	3.59 – 4.86	mmol/L	0.474	0.403 – 0.545	1.13	0.962 – 1.30	1.74	1.48 – 2.00
Phenobarbital (EIA) (PHNB_2)	µg/mL	8.35	6.68 – 10.0	30.2	24.1 – 36.2	61.4	49.1 – 73.7	µmol/L	36.0	28.8 – 43.2	130	104 – 156	265	212 – 318
Phenobarbital (Immunoturbidimetric) (PHNB)	µg/mL	8.73	6.98 – 10.5	31.6	25.8 – 37.9	63.0	50.4 – 75.6	µmol/L	37.6	30.1 – 45.2	136	111 – 163	272	217 – 326
Phenytoin (EIA) (PHNY_2)	µg/mL	4.10	3.07 – 5.12	10.6	7.96 – 13.3	20.9	15.7 – 26.1	µmol/L	16.2	12.2 – 20.3	42.1	31.5 – 52.5	82.6	62.0 – 103
Phenytoin (Immunoturbidimetric) (PHNY)	µg/mL	3.92	3.14 – 4.70	9.98	7.98 – 12.0	20.2	16.1 – 24.2	µmol/L	15.5	12.4 – 18.6	39.5	31.6 – 47.4	79.8	63.9 – 95.8
Phosphorus (Phosphomolybdate–UV) (IP, IP_c)	mg/dL	1.80	1.62 – 1.98	3.98	3.58 – 4.38	7.11	6.40 – 7.83	mmol/L	0.583	0.0				

	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range
SIEMENS BNA / BN100 / BNII / BN PROSPEC (continued)														
Immunoglobulin M (IgM) (Immunonephelometric, fixed time, kinetic) (IFCC) (1)	mg/dL	64.2	51.4 – 77.0	77.4	61.9 – 92.8	108	86.2 – 129	g/L	0.642	0.514 – 0.770	0.774	0.619 – 0.928	1.08	0.862 – 1.29
Transferrin (Immunonephelometric, fixed time, kinetic) (IFCC) (1)	mg/dL	\$		\$		\$		g/L	\$		\$		\$	
SIEMENS DIMENSION SERIES														
Acetaminophen (Enzymatic, colorimetric)	µg/mL	22.4	17.9 – 26.9	49.3	39.4 – 59.1	156	125 – 187	µmol/L	148	119 – 178	326	261 – 391	1029	823 – 1235
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (4)	U/L	37.9	30.3 – 45.5	99.9	79.9 – 120	208	166 – 249	µmol/L/sec	0.633	0.506 – 0.760	1.67	1.33 – 2.00	3.47	2.77 – 4.16
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (IFCC 2002) (4)	U/L	23.0	18.4 – 27.6	86.7	69.4 – 104	198	158 – 237	µmol/L/sec	0.384	0.307 – 0.461	1.45	1.16 – 1.74	3.30	2.64 – 3.96
Albumin (Bromocresol purple)	g/dL	2.53	2.02 – 3.04	3.27	2.62 – 3.92	4.18	3.34 – 5.02	g/L	25.3	20.2 – 30.4	32.7	26.2 – 39.2	41.8	33.4 – 50.2
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (4)	U/L	43.5	34.8 – 52.2	163	130 – 196	314	251 – 377	µmol/L/sec	0.726	0.581 – 0.872	2.72	2.18 – 3.27	5.25	4.20 – 6.30
Amylase (CNP-triose/CNPG3) (4)	U/L	45.0	36.0 – 54.0	157	126 – 188	327	262 – 393	µmol/L/sec	0.752	0.601 – 0.902	2.62	2.10 – 3.15	5.46	4.37 – 6.56
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (4)	U/L	38.1	30.5 – 45.7	108	86.5 – 130	251	201 – 301	µmol/L/sec	0.636	0.509 – 0.764	1.81	1.44 – 2.17	4.19	3.35 – 5.03
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (IFCC 2002) (4)	U/L	38.2	30.5 – 45.8	108	86.4 – 130	251	201 – 301	µmol/L/sec	0.637	0.510 – 0.765	1.80	1.44 – 2.17	4.19	3.35 – 5.03
Bilirubin, Direct (Diazoitization)	mg/dL	0.212	0.169 – 0.254	1.09	0.875 – 1.31	2.00	1.60 – 2.40	µmol/L	3.62	2.90 – 4.34	18.7	15.0 – 22.5	34.2	27.4 – 41.1
Bilirubin, Total (Jendrasick Grof)	mg/dL	0.650	0.520 – 0.780	3.15	2.52 – 3.78	7.27	5.82 – 8.72	µmol/L	11.1	8.89 – 13.3	53.9	43.1 – 64.6	124	99.5 – 149
C3 Complement (Immunoturbidimetric) (1)	mg/dL	92.0	73.6 – 110	121	96.8 – 145	159	127 – 191	g/L	0.920	0.736 – 1.10	1.21	0.968 – 1.45	1.59	1.27 – 1.91
C4 Complement (Immunoturbidimetric) (1)	mg/dL	16.1	12.9 – 19.3	20.9	16.7 – 25.1	26.3	21.0 – 31.6	g/L	0.161	0.129 – 0.193	0.209	0.167 – 0.251	0.263	0.210 – 0.316
Calcium, Total (o-cresolphthalein complexone)	mg/dL	5.96	5.36 – 6.56	9.71	8.74 – 10.7	12.9	11.6 – 14.1	mmol/L	1.49	1.34 – 1.64	2.43	2.18 – 2.67	3.21	2.89 – 3.54
Carbamazepine (Immunoturbidimetric)	µg/mL	3.68	2.95 – 4.42	9.02	7.21 – 10.8	14.5	11.6 – 17.4	µmol/L	15.6	12.5 – 18.7	38.1	30.5 – 45.8	61.2	49.0 – 73.4
Carbon Dioxide (CO ₂) (Enzymatic)	mEq/L	15.8	12.6 – 19.0	21.9	17.5 – 26.3	28.3	22.6 – 33.9	mmol/L	15.8	12.6 – 19.0	21.9	17.5 – 26.3	28.3	22.6 – 33.9
Carbon Dioxide (CO ₂) (ISE Indirect)	mEq/L	\$		\$		\$		mmol/L	\$		\$		\$	
Chloride (ISE Indirect)	mEq/L	70.4	63.3 – 77.4	96.9	87.2 – 107	121	109 – 134	mmol/L	70.4	63.3 – 77.4	96.9	87.2 – 107	121	109 – 134
Cholesterol, HDL (Direct measure, polymer-polyanion) (DF48A)	mg/dL	35.0	28.0 – 42.0	55.0	44.0 – 66.0	95.0	76.0 – 114	mmol/L	0.907	0.725 – 1.09	1.42	1.14 – 1.71	2.46	1.97 – 2.95
Cholesterol, HDL (Direct measure-PEG) (DF48B)	mg/dL	27.0	21.6 – 32.4	48.0	38.4 – 57.6	79.0	63.2 – 94.8	mmol/L	0.699	0.559 – 0.839	1.24	0.995 – 1.49	2.05	1.64 – 2.46
Cholesterol, Low Density Lipoprotein (Direct measure)	mg/dL	57.9	46.3 – 69.5	80.0	64.0 – 96.0	120	96.2 – 144	mmol/L	1.50	1.20 – 1.80	2.07	1.66 – 2.49	3.11	2.49 – 3.74
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	104	82.8 – 124	169	135 – 203	261	209 – 313	mmol/L	2.68	2.14 – 3.22	4.38	3.50 – 5.25	6.75	5.40 – 8.11
Cholinesterase (Butyrylthiocholine (Trinder)) (PCHE) (1) (4)	U/L	8200	6560 – 9840	11500	9200 – 13800	>14000		µmol/L/sec	137	110 – 164	192	154 – 230	>234	
Cholinesterase (Butyrylthiocholine (Trinder)) (PCHE) (Europe/Asia) (1) (4)	U/L	7687	6150 – 9224	10829	8663 – 12995	13333	10666 – >14000	µmol/L/sec	128	103 – 154	181	145 – 217	223	178 – >234
Creatine Kinase (CK) (NAC activated) (IFCC 2002) (CK1) (4)	U/L	94.7	75.8 – 114	288	231 – 346	690	552 – 827	µmol/L/sec	1.58	1.27 – 1.90	4.82	3.85 – 5.78	11.5	9.21 – 13.8
Creatinine (Alkaline picrate-kinetic)	mg/dL	0.675	0.540 – 0.810	1.90	1.52 – 2.28	6.73	5.39 – 8.08	µmol/L	59.7	47.7 – 71.6	168	134 – 202	595	476 – 714
Creatinine (Enzymatic) (EZCR)	mg/dL	0.570	0.456 – 0.684	1.90	1.52 – 2.28	6.46	5.17 – 7.75	µmol/L	50.4	40.3 – 60.5	168	134 – 202	571	457 – 685
Digoxin (EIA)	ng/mL	0.416	0.333 – 0.500	1.71	1.37 – 2.05	3.02	2.42 – 3.63	nmol/L	0.533	0.426 – 0.639	2.19	1.75 – 2.62	3.87	3.10 – 4.64
Ethanol (Enzymatic UV)	mg/dL	20.0	16.0 – 24.0	72.8	58.2 – 87.3	187	149 – 224	mmol/L	4.34	3.47 – 5.21	15.8	12.6 – 18.9	40.5	32.4 – 48.6
Ferritin (EIA) (1)	ng/mL	37.0	29.6 – 44.4	60.3	48.3 – 72.4	55.3	44.3 – 66.4	µg/L	37.0	29.6 – 44.4	60.3	48.3 – 72.4	55.3	44.3 – 66.4
Gamma Glutamyltransferase (GGT) (G-glutamyl-carboxy-nitroanilide) (4)	U/L	39.1	31.3 – 47.0	107	85.4 – 128	161	129 – 193	µmol/L/sec	0.653	0.523 – 0.784	1.78	1.43 – 2.14	2.69	2.15 – 3.22
Gamma Glutamyltransferase (GGT) (G-glutamyl-carboxy-nitroanilide) (IFCC 2002) (4)	U/L	33.2	26.6 – 39.9	91.8	73.5 – 110	138	111 – 166	µmol/L/sec	0.555	0.444 – 0.666	1.53	1.23 – 1.84	2.31	1.85 – 2.77
Gentamicin (Immunoturbidimetric)	µg/mL	2.18	1.74 – 2.61	5.96	4.77 – 7.16	>12.0		µmol/L	4.55	3.64 – 5.45	12.5	9.97 – 15.0	>25.1	
Glucose (Hexokinase)	mg/dL	59.8	47.8 – 71.8	120	96.3 – 144	362	289 – 434	mmol/L	3.32	2.66 – 3.98	6.68	5.35 – 8.02	20.1	16.1 – 24.1
Immunoglobulin A (IgA) (Immunoturbidimetric) (1)	mg/dL	117	93.9 – 141	155	124 – 186	189	151 – 227	g/L	1.17	0.939 – 1.41	1.55	1.24 – 1.86	1.89	1.51 – 2.27
Immunoglobulin G (IgG) (Immunoturbidimetric) (1)	mg/dL	620	496 – 744	750	600 – 900	923	739 – 1108	g/L	6.20	4.96 – 7.44	7.50	6.00 – 9.00	9.23	7.39 – 11.1
Immunoglobulin M (IgM) (Immunoturbidimetric) (1)	mg/dL	56.3	45.1 – 67.6	66.8	53.5 – 80.2	81.0	64.8 – 97.2	g/L	0.563	0.451 – 0.676	0.668	0.535 – 0.802	0.810	0.648 – 0.972
Iron (Ferene)	µg/dL	72.3	57.9 – 86.8	156	125 – 188	236	189 – 283	µmol/L	12.9	10.4 – 15.5	28.0	22.4 – 33.6	42.2	33.8 – 50.7
Iron-Binding Capacity, Total (TIBC) (Ferene) (1)	µg/dL	220	176 – 264	298	238 – 358	400	320 – 480	µmol/L	39.3	31.5 – 47.2	53.4	42.7 – 64.0	71.7	57.3 – 86.0
Lactate (Lactic Acid) (Enzymatic)	mg/dL	▲		▲		▲		mmol/L	▲		▲		▲	
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (IFCC 2002) (LDI) (4)	U/L	118	94.2 – 141	172	137 – 206	387	309 – 464	µmol/L/sec	1.97	1.57 – 2.36	2.86	2.29 – 3.44	6.46	5.17 – 7.75
Lipase (Colorimetric) (4)	U/L	110	88.3 – 132	200	160 – 240	581	465 – 697	µmol/L/sec	1.84	1.47 – 2.21	3.34	2.67 – 4.01	9.70	7.76 – 11.6
Lithium (Colorimetric)	mEq/L	0.452	0.407 – 0.497	1.43	1.28 – 1.57	2.23	2.00 – 2.45	mmol/L	0.452	0.407 – 0.497	1.43	1.28 – 1.57	2.23	2.00 – 2.45
Lithium (Europe/Asia)	mEq/L	0.420	0.378 – 0.462	1.35	1.22 – 1.49	2.16	1.94 – 2.38	mmol/L	0.420	0.378 – 0.462	1.35	1.22 – 1.49	2.16	1.94 – 2.38
Magnesium (Methylthymol blue)	mg/dL	1.00	0.850 – 1.15	2.62	2.22 – 3.01	4.10	3.49 – 4.72	mmol/L	0.411	0.350 – 0.473	1.08	0.915 – 1.24	1.69	1.43 – 1.94
Phenobarbital (Immunoturbidimetric)	µg/mL	9.93	7.94 – 11.9	32.2	25.7 – 38.6	67.3	53.9 – 80.8	µmol/L	42.8	34.2 – 51.3	139	111 – 166	290	232 – 348
Phenytoin (Immunoturbidimetric)	µg/mL	4.35	3.48 – 5.22	11.2	8.92 – 13.4	22.2	17.8 – 26.7	µmol/L	17.2	13.8 – 20.7	44.2	35.3 – 53.0	88.1	70.4 – 106
Phosphorus (Phosphomolybdate-UV)	mg/dL	1.80	1.62 – 1.98	3.95	3.56 – 4.35	7.05	6.35 – 7.76	mmol/L	0.581	0.523 – 0.640	1.28	1.15 – 1.40	2.28	2.05 – 2.50
Potassium (ISE Indirect)	mEq/L	2.40	2.16 – 2.64	3.91	3.52 – 4.31	7.51	6.76 – 8.26	mmol/L	2.40	2.16 – 2.64	3.91	3.52 – 4.31	7.51	6.76 – 8.26
Prealbumin (Immunoturbidimetric) (1)	µg/dL	18.1	14.5 – 21.8	23.6	18.9 – 28.4	31.3	25.0 – 37.5	ng/L	181	145 – 218	236	189 – 284	313	250 – 375
Protein, Total (Biuret, serum blank, end point)	g/dL	4.44	3.55 – 5.33	5.71	4.57 – 6.86	7.30	5.84 – 8.76	g/L	44.4	35.5 – 53.3	57.1	45.7 – 68.6	73.0	58.4 – 87.6
Salicylate (Trinder)	mg/dL	6.20	4.96 – 7.44	8.38										

	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range
SIEMENS DIMENSION VISTA SYSTEMS (continued)														
Alpha-1-Antitrypsin (Immunonephelometric, fixed time, kinetic) (1)	mg/dL	89.9	70.0 – 110	131	105 – 157	171	137 – 205	g/L	0.899	0.700 – 1.10	1.31	1.05 – 1.57	1.71	1.37 – 2.05
Amylase (CNP-triose/CNP63) (4)	U/L	42.7	34.1 – 51.2	148	119 – 178	310	248 – 372	µkat/L	0.712	0.570 – 0.855	2.48	1.98 – 2.98	5.18	4.14 – 6.21
Apolipoprotein A-I (Immunonephelometric, fixed time, kinetic) (1)	mg/dL	87.8	70.2 – 105	114	91.2 – 137	154	123 – 185	g/L	0.878	0.702 – 1.05	1.14	0.912 – 1.37	1.54	1.23 – 1.85
Apolipoprotein B (Immunonephelometric, fixed time, kinetic) (1)	mg/dL	40.7	32.6 – 48.8	53.8	43.0 – 64.6	75.4	60.3 – 90.5	g/L	0.407	0.326 – 0.488	0.538	0.430 – 0.646	0.754	0.603 – 0.905
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (4)	U/L	31.2	24.9 – 37.4	100	80.0 – 120	242	193 – 290	µkat/L	0.520	0.416 – 0.625	1.67	1.34 – 2.00	4.03	3.23 – 4.84
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (IFCC 2002) (4)	U/L	33.8	27.0 – 40.6	99.8	79.8 – 120	237	190 – 285	µkat/L	0.565	0.452 – 0.678	1.67	1.33 – 2.00	3.96	3.17 – 4.76
Bilirubin, Direct (Diazotization)	mg/dL	0.219	0.175 – 0.262	1.12	0.894 – 1.34	2.06	1.65 – 2.48	µmol/L	3.74	2.99 – 4.49	19.1	15.3 – 22.9	35.3	28.2 – 42.3
Bilirubin, Total (Jendrassik Grof)	mg/dL	0.656	0.525 – 0.787	3.06	2.45 – 3.67	6.98	5.58 – 8.38	µmol/L	11.2	8.97 – 13.5	52.3	41.8 – 62.8	119	95.5 – 143
C3 Complement (Immunonephelometric, fixed time, kinetic) (1)	mg/dL	94.9	75.9 – 114	131	105 – 157	173	139 – 208	g/L	0.948	0.759 – 1.14	1.31	1.05 – 1.57	1.73	1.39 – 2.08
C4 Complement (Immunonephelometric, fixed time, kinetic) (1)	mg/dL	17.5	14.0 – 21.0	23.4	18.7 – 28.0	30.1	24.1 – 36.1	g/L	0.175	0.140 – 0.210	0.234	0.187 – 0.280	0.301	0.241 – 0.361
Calcium, Total (o-cresolphthalein complexone)	mg/dL	6.14	5.53 – 6.75	9.69	8.72 – 10.7	12.8	11.5 – 14.0	mmol/L	1.53	1.38 – 1.69	2.42	2.18 – 2.67	3.19	2.87 – 3.51
Carbamazepine (Immunoturbidimetric)	µg/mL	3.93	3.14 – 4.72	9.17	7.34 – 11.0	14.5	11.6 – 17.4	µmol/L	16.6	13.3 – 19.9	38.8	31.0 – 46.5	61.2	49.0 – 73.4
Carbon Dioxide (CO ₂) (Enzymatic)	mEq/L	14.6	11.7 – 17.5	20.1	16.1 – 24.1	26.0	20.8 – 31.2	mmol/L	14.6	11.7 – 17.5	20.1	16.1 – 24.1	26.0	20.8 – 31.2
Ceruloplasmin (Immunonephelometric, fixed time, kinetic) (1)	mg/dL	22.7	18.1 – 27.2	28.4	22.7 – 34.0	44.2	35.4 – 53.0	g/L	0.227	0.181 – 0.272	0.284	0.227 – 0.340	0.442	0.354 – 0.530
Chloride (ISE Indirect)	mEq/L	72.6	65.4 – 79.9	98.6	88.8 – 108	122	110 – 134	mmol/L	72.6	65.4 – 79.9	98.6	88.8 – 108	122	110 – 134
Cholesterol, High Density Lipoprotein (HDL) (K3048) (HDLc)	mg/dL	36.0	28.8 – 43.2	59.0	47.2 – 70.8	102	81.6 – 122	mmol/L	0.932	0.746 – 1.12	1.53	1.22 – 1.83	2.64	2.11 – 3.17
Cholesterol, High Density Lipoprotein (HDL) (K3048A) (HDLc)	mg/dL	28.0	22.4 – 33.6	51.0	40.8 – 61.2	82.0	65.6 – 98.4	mmol/L	0.725	0.580 – 0.870	1.32	1.06 – 1.59	2.12	1.70 – 2.55
Cholesterol, Low Density Lipoprotein (LDL) (Direct measure) (ALDL)	mg/dL	62.9	50.3 – 75.4	91.0	72.8 – 109	137	110 – 164	mmol/L	1.63	1.30 – 1.95	2.36	1.89 – 2.83	3.55	2.84 – 4.26
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	103	82.6 – 124	169	135 – 203	266	213 – 319	mmol/L	2.67	2.14 – 3.21	4.37	3.50 – 5.25	6.89	5.51 – 8.27
Cholinesterase (Butyrylthiocholine (Trinder)) (PCHE) (1) (4)	U/L	7800	6200 – 9400	10600	8480 – 12720	12900	10320 – >14000	µkat/L	130	104 – 157	177	142 – 212	215	172 – >234
Cholinesterase (Butyrylthiocholine (Trinder)) (PCHE) (IFCC 2002) (1) (4)	U/L	7070	5656 – 8484	9950	7960 – 11940	12095	9676 – >14000	µkat/L	118	94.5 – 142	166	133 – 199	202	162 – >234
Creatine Kinase (CK) (NAC activated) (IFCC 2002) (CK) (4)	U/L	95.6	76.5 – 115	286	229 – 343	684	547 – 821	µkat/L	1.60	1.28 – 1.92	4.78	3.82 – 5.74	11.4	9.14 – 13.7
Creatine Kinase (CK) (Rosalki, other modified) (4)	U/L	\$		\$		\$		µkat/L	\$		\$		\$	
Creatinine (Alkaline picrate-kinetic) (CREA)	mg/dL	0.702	0.562 – 0.842	1.95	1.56 – 2.34	6.73	5.38 – 8.08	µmol/L	62.0	49.6 – 74.5	172	138 – 207	595	476 – 714
Creatinine (Enzymatic) (ECREA)	mg/dL	0.593	0.500 – 0.700	1.93	1.54 – 2.32	6.60	5.28 – 7.92	µmol/L	52.4	44.2 – 61.9	171	136 – 205	583	467 – 700
Digoxin (Chemiluminescence) (LOCI DIGXN)	ng/mL	0.540	0.432 – 0.648	1.85	1.48 – 2.22	3.28	2.62 – 3.93	nmol/L	0.692	0.553 – 0.830	2.36	1.89 – 2.84	4.19	3.35 – 5.03
Digoxin (EIA) (DIG)	ng/mL	\$		\$		\$		nmol/L	\$		\$		\$	
Ethanol (Enzymatic UV)	mg/dL	18.4	14.7 – 22.1	75.5	60.4 – 90.6	194	155 – 232	mmol/L	3.99	3.19 – 4.79	16.4	13.1 – 19.7	42.0	33.6 – 50.4
Ferritin (Chemiluminescence) (1)	ng/mL	33.5	26.8 – 40.2	59.8	47.8 – 71.8	55.1	44.1 – 66.1	µg/L	33.5	26.8 – 40.2	59.8	47.8 – 71.8	55.1	44.1 – 66.1
Gamma Glutamyltransferase (GGT) (G-glutamyl-carboxy-nitroanilide) (4)	U/L	35.9	28.7 – 43.1	110	88.2 – 132	169	135 – 203	µkat/L	0.600	0.480 – 0.719	1.84	1.47 – 2.21	2.82	2.26 – 3.38
Gamma Glutamyltransferase (GGT) (G-glutamyl-carboxy-nitroanilide) (IFCC 2002) (4)	U/L	38.2	30.6 – 45.8	100	80.4 – 121	149	119 – 179	µkat/L	0.638	0.510 – 0.766	1.68	1.34 – 2.01	2.49	1.99 – 2.99
Gentamicin (Immunoturbidimetric)	µg/mL	2.08	1.66 – 2.49	5.94	4.75 – 7.13	>12.0		µmol/L	4.34	3.47 – 5.20	12.4	9.93 – 14.9	>25.1	
Glucose (Hexokinase)	mg/dL	58.1	46.5 – 69.7	117	94.0 – 141	347	277 – 416	mmol/L	3.22	2.58 – 3.87	6.52	5.21 – 7.82	19.2	15.4 – 23.1
Haptoglobin (Immunonephelometric, fixed time, kinetic) (1)	mg/dL	82.2	65.8 – 98.6	112	89.5 – 134	139	111 – 166	g/L	0.822	0.658 – 0.986	1.12	0.895 – 1.34	1.39	1.11 – 1.66
Immunoglobulin A (IgA) (Immunonephelometric, fixed time, kinetic) (1)	mg/dL	138	110 – 165	180	144 – 216	239	191 – 287	g/L	1.38	1.10 – 1.65	1.80	1.44 – 2.16	2.39	1.91 – 2.87
Immunoglobulin G (IgG) (Immunonephelometric, fixed time, kinetic) (1)	mg/dL	643	514 – 771	812	649 – 974	1031	825 – 1238	g/L	6.43	5.14 – 7.71	8.12	6.49 – 9.74	10.3	8.25 – 12.4
Immunoglobulin M (IgM) (Immunonephelometric, fixed time, kinetic) (1)	mg/dL	63.3	50.6 – 75.9	76.5	61.2 – 91.8	107	85.6 – 128	g/L	0.633	0.506 – 0.759	0.765	0.612 – 0.918	1.07	0.856 – 1.28
Iron (Ferene)	µg/dL	74.5	59.6 – 89.4	159	127 – 190	238	190 – 286	µmol/L	13.3	10.7 – 16.0	28.4	22.7 – 34.1	42.6	34.1 – 51.1
Iron-Binding Capacity, Total (TIBC) (Ferene) (1)	µg/dL	229	183 – 274	311	248 – 373	419	335 – 503	µmol/L	40.9	32.7 – 49.1	55.6	44.5 – 66.7	75.0	60.0 – 90.0
Lactate (Lactic Acid) (Lactate to Pyruvate)	mg/dL	14.5	11.6 – 17.4	31.4	25.1 – 37.6	55.4	44.3 – 66.5	mmol/L	1.61	1.29 – 1.94	3.48	2.78 – 4.18	6.15	4.92 – 7.38
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (4)	U/L	\$		\$		\$		µkat/L	\$		\$		\$	
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (IFCC 2002) (LDI) (4)	U/L	119	95.4 – 143	172	138 – 207	392	314 – 471	µkat/L	1.99	1.59 – 2.39	2.87	2.30 – 3.45	6.55	5.24 – 7.86
Lipase (Colorimetric) (LIPL) (4)	U/L	114	91.2 – 137	235	188 – 282	726	581 – 871	µkat/L	1.90	1.52 – 2.28	3.92	3.14 – 4.71	12.1	9.70 – 14.5
Lithium (Colorimetric)	mEq/L	0.542	0.488 – 0.596	1.48	1.33 – 1.63	2.21	1.99 – 2.43	mmol/L	0.542	0.488 – 0.596	1.48	1.33 – 1.63	2.21	1.99 – 2.43
Magnesium (Methylthymol blue)	mg/dL	1.12	0.953 – 1.29	2.73	2.32 – 3.14	4.23	3.60 – 4.87	mmol/L	0.461	0.392 – 0.531	1.12	0.956 – 1.29	1.74	1.48 – 2.00
Phenobarbital (Immunoturbidimetric)	µg/mL	10.6	8.48 – 12.7	32.6	26.1 – 39.1	64.8	51.9 – 77.8	µmol/L	45.7	36.5 – 54.8	141	112 – 169	279	224 – 335
Phenytoin (Immunoturbidimetric)	µg/mL	4.56	3.65 – 5.48	10.9	8.75 – 13.1	21.9	17.5 – 26.3	µmol/L	18.1	14.5 – 21.7	43.3	34.7 – 52.0	86.7	69.3 – 104
Phosphorus (Phosphomolybdate-UV)	mg/dL	1.74	1.57 – 1.91	3.88	3.50 – 4.27	6.96	6.27 – 7.66	mmol/L	0.562	0.506 – 0.618	1.25	1.13 – 1.38	2.25	2.02 – 2.47
Potassium (ISE Indirect)	mEq/L	2.50	2.25 – 2.75	4.02	3.62 – 4.42	7.68	6.91 – 8.45	mmol/L	2.50	2.25 – 2.75	4.02	3.62 – 4.42	7.68	6.91 – 8.45
Prealbumin (Immunonephelometric, fixed time, kinetic) (1)	mg/dL	15.9	12.7 – 19.1	22.0	17.6 – 26.4	29.2	23.4 – 35.1	g/L	0.159	0.127 – 0.191	0.220	0.176 – 0.264	0.292	0.234 – 0.351
Protein, Total (Biuret, serum blank, end point)	g/dL	4.38	3.50 – 5.26	5.56	4.45 – 6.67	7.14	5.71 – 8.56	g/L	43.8	35.0 – 52.6	55.6	44.5 – 66.7	71.4	57.1 – 85.6
Salicylate (Trinder)	mg/dL	6.37	5.10 – 7.64	9.08	7.26 – 10.9	10.6	8.50 – 12.8	mmol/L	0.461	0.369 – 0.553	0.657	0.526 – 0.789	0.770	0.616 – 0.924
Sodium (ISE Indirect)	mEq/L	110	98.7 – 121	135	122 – 149	154	139 – 170	mmol/L	110	98.7 – 121	135	122 – 149	154	139 – 170
T3 Total (EIA)	ng/mL	0.523	0.419 – 0.628	1.48	1.18 – 1.77	2.51	2.01 – 3.02	nmol/L	0.806	0.645 – 0.967	2.27	1.82 – 2.73	3.87	3.10 – 4.64
T3 Uptake / T-Uptake (EIA)	% Uptake	36.4	29.1 – 43.6	35.5	28.4 – 42.6	38.4	30.7 – 46.0	% Uptake	36.4	29.1 – 43.6	35.5	28.4 – 42.6	38.4	30.7 – 46.0
T4 Free (Chemiluminescence)	ng/dL	0.948	0.758 – 1.14	1.24	0.995 – 1.49	2.25	1.80 – 2.70	pmol/L	12.2	9.78 – 14.7	16.0	12.8 – 19.3	29.1	23.2 – 34.9
T4 Total (EIA)	µg/dL	6.23	4.98 – 7.47	8.38	6.70 – 10.1	16.4	13.1 – 19.6	nmol/L	80.3	64.2 – 96.4	108	86.4 – 130	211	169 – 253
Theophylline (Immunoturbidimetric)	µg/mL	4.49	3.59 – 5.39	15.2	12.1 – 18.2	24.1	19.3 – 29.0	µmol/L	24.9	19.9 – 29.9	84.2	67.3 – 101	134	107 – 161
Thyroid Stimulating Hormone (TSH) (Chemiluminescence)	µIU/mL	1.26	1.01 – 1.51	4.62	3.69 – 5.54	13.4	10.7 – 16.1	mIU/L	1.26	1.01 – 1.51	4.62	3.69 – 5.54	13.4	10.7 – 16.1
Tobramycin (Immunoturbidimetric)	µg/mL	5.21	4.17 – 6.26	3.36	2.69 – 4.04	1.26	1.01 – 1.52	µmol/L	11.2	8.92 – 13.4	7.20	5.76 – 8.63	2.70	2.16 – 3.24
Transferrin (Immunonephelometric, fixed time, kinetic) (1)	mg/dL	165	132 – 198	203	162 – 243	282	225 – 338	g/L	1.65	1.32 – 1.98	2.03	1.62 – 2.43	2.82	2.25 – 3.38
Triglycerides (Enzymatic, Endpoint)	mg/dL	100	80.3 – 120	146	116 – 175	227	181 – 272	mmol/L	1.13	0.907 – 1.36	1.64	1.32 – 1.97	2.56	2.05 – 3.08
Urea Nitrogen (BUN) (Urease, UV) (6)	mg/dL	16.0	12.8 – 19.2	42.4	33.9 – 50.9	72.6	58.1 – 87.2	mmol/L	5.71	4.57 – 6.85	15.1	12.1 – 18.2	25.9	20.7 – 31.1
Uric Acid (Uricase, UV)	mg/dL	3.23	2.59 – 3.88	5.47	4.38 – 6.57	9.46	7.57 – 11.4	µmol/L	192	154 – 231	325	260 – 391	563	450 – 675
Valproic Acid (Immunoturbidimetric)	µg/mL	25.5	20.4 – 30.6	63.9	51.1 – 76.7	104	83.6 – 125	µmol/L	177	142 – 212	443	354 – 531	724	579 – 869
Vitamin B ₁₂ (Chemiluminescence) (1)	pg/mL	368	294 – 441	537	430 – 645	748	598 – 897	pmol/L						

PROTEIN ELECTROPHORESIS^{(1) (7)}
Eiweiss-Elektrophorese // Électrophorèse de protéines // Elettroforesi proteica // Electroforesis de las proteínas // Electroforese de proteínas // Proteinelektrofores // Proteinelektroforese

	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range	
A/G RATIO															
Helena	Ratio	1.23	0.982 – 1.47	1.13	0.902 – 1.35	1.03	0.820 – 1.23	Ratio	1.23	0.982 – 1.47	1.13	0.902 – 1.35	1.03	0.820 – 1.23	
Sebia	Ratio	1.78	1.42 – 2.14	1.63	1.30 – 1.95	1.68	1.34 – 2.02	Ratio	1.78	1.42 – 2.14	1.63	1.30 – 1.95	1.68	1.34 – 2.02	
ALBUMIN															
Helena	%	55.2	49.7 – 60.7	53.0	47.7 – 58.3	50.7	45.6 – 55.7	%	55.2	49.7 – 60.7	53.0	47.7 – 58.3	50.7	45.6 – 55.7	
Helena	g/dL	2.27	2.05 – 2.50	2.81	2.53 – 3.09	3.49	3.14 – 3.84	g/dL	2.27	2.05 – 2.50	2.81	2.53 – 3.09	3.49	3.14 – 3.84	
Ponceau S	%	61.2	55.1 – 67.3	61.0	54.9 – 67.1	61.1	55.0 – 67.3	%	61.2	55.1 – 67.3	61.0	54.9 – 67.1	61.1	55.0 – 67.3	
Sebia	%	64.2	57.7 – 70.6	62.1	55.8 – 68.3	62.8	56.5 – 69.0	%	64.2	57.7 – 70.6	62.1	55.8 – 68.3	62.8	56.5 – 69.0	
Sebia	g/dL	2.72	2.42 – 3.02	3.45	3.10 – 3.79	4.37	3.93 – 4.81	g/dL	2.72	2.42 – 3.02	3.45	3.10 – 3.79	4.37	3.93 – 4.81	
ALPHA-1-GLOBULIN															
Helena	%	3.61	2.74 – 4.47	3.89	2.88 – 4.90	4.06	2.92 – 5.19	%	3.61	2.74 – 4.47	3.89	2.88 – 4.90	4.06	2.92 – 5.19	
Helena	g/dL	0.132	0.084 – 0.179	0.198	0.151 – 0.246	0.235	0.179 – 0.291	g/dL	0.132	0.084 – 0.179	0.198	0.151 – 0.246	0.235	0.179 – 0.291	
Ponceau S	%	3.65	2.78 – 4.53	3.78	2.87 – 4.69	3.89	2.95 – 4.82	%	3.65	2.78 – 4.53	3.78	2.87 – 4.69	3.89	2.95 – 4.82	
Sebia	%	2.63	2.00 – 3.26	2.71	2.06 – 3.36	2.63	2.00 – 3.26	%	2.63	2.00 – 3.26	2.71	2.06 – 3.36	2.63	2.00 – 3.26	
Sebia	g/dL	0.103	0.078 – 0.127	0.129	0.098 – 0.160	0.173	0.131 – 0.214	g/dL	0.103	0.078 – 0.127	0.129	0.098 – 0.160	0.173	0.131 – 0.214	
ALPHA-2-GLOBULIN															
Helena	%	11.3	8.57 – 14.0	12.3	9.36 – 15.3	13.5	10.2 – 16.7	%	11.3	8.57 – 14.0	12.3	9.36 – 15.3	13.5	10.2 – 16.7	
Helena	g/dL	0.464	0.352 – 0.575	0.643	0.488 – 0.797	0.930	0.707 – 1.15	g/dL	0.464	0.352 – 0.575	0.643	0.488 – 0.797	0.930	0.707 – 1.15	
Ponceau S	%	8.43	6.41 – 10.5	8.58	6.52 – 10.6	8.65	6.57 – 10.7	%	8.43	6.41 – 10.5	8.58	6.52 – 10.6	8.65	6.57 – 10.7	
Sebia	%	9.65	7.33 – 12.0	10.5	7.99 – 13.0	11.0	8.36 – 13.6	%	9.65	7.33 – 12.0	10.5	7.99 – 13.0	11.0	8.36 – 13.6	
Sebia	g/dL	0.408	0.310 – 0.505	0.551	0.419 – 0.684	0.803	0.610 – 0.995	g/dL	0.408	0.310 – 0.505	0.551	0.419 – 0.684	0.803	0.610 – 0.995	
BETA GLOBULIN															
Helena	%	15.5	11.8 – 19.2	16.9	12.8 – 20.9	17.5	13.3 – 21.7	%	15.5	11.8 – 19.2	16.9	12.8 – 20.9	17.5	13.3 – 21.7	
Helena	g/dL	0.644	0.489 – 0.798	0.900	0.684 – 1.12	1.21	0.918 – 1.50	g/dL	0.644	0.489 – 0.798	0.900	0.684 – 1.12	1.21	0.918 – 1.50	
Ponceau S	%	11.7	8.92 – 14.5	12.9	9.79 – 16.0	13.1	9.97 – 16.3	%	11.7	8.92 – 14.5	12.9	9.79 – 16.0	13.1	9.97 – 16.3	
Sebia	%	12.5	9.47 – 15.5	14.0	10.6 – 17.4	13.5	10.3 – 16.7	%	12.5	9.47 – 15.5	14.0	10.6 – 17.4	13.5	10.3 – 16.7	
Sebia	g/dL	0.517	0.393 – 0.641	0.733	0.557 – 0.909	0.945	0.718 – 1.17	g/dL	0.517	0.393 – 0.641	0.733	0.557 – 0.909	0.945	0.718 – 1.17	
GAMMA GLOBULIN															
Helena	%	14.5	11.0 – 17.9	13.9	10.6 – 17.2	14.3	10.9 – 17.7	%	14.5	11.0 – 17.9	13.9	10.6 – 17.2	14.3	10.9 – 17.7	
Helena	g/dL	0.600	0.456 – 0.744	0.743	0.564 – 0.921	0.991	0.753 – 1.23	g/dL	0.600	0.456 – 0.744	0.743	0.564 – 0.921	0.991	0.753 – 1.23	
Ponceau S	%	15.0	11.4 – 18.6	13.7	10.4 – 17.0	13.6	10.3 – 16.9	%	15.0	11.4 – 18.6	13.7	10.4 – 17.0	13.6	10.3 – 16.9	
Sebia	%	11.3	8.58 – 14.0	11.0	8.34 – 13.6	10.2	7.77 – 12.7	%	11.3	8.58 – 14.0	11.0	8.34 – 13.6	10.2	7.77 – 12.7	
Sebia	g/dL	0.451	0.343 – 0.560	0.569	0.432 – 0.705	0.703	0.534 – 0.871	g/dL	0.451	0.343 – 0.560	0.569	0.432 – 0.705	0.703	0.534 – 0.871	

ENGLISH

- (1) Endogenous levels.
- (2) Values are not provided.
- (3) Enzymatic methods only.
- (4) Values were obtained at 37°C.
- (5) The mean value is calculated from data generated by instruments using this method.
- (6) mg/dL Urea Nitrogen x 2,14 = mg/dL UREA. S.I.U. value range is expressed as UREA.
- (7) This product has been tested using the methodologies listed in the package insert. The performance of this product has not been evaluated for use with capillary electrophoresis methods.
- ▲ Data not available at the time of printing. Please inquire.
- § The data required to establish the means and acceptable ranges for this assay were not obtained due to limited assignment participation. If your facility is interested in participating in the Value Assignment Program for this assay, please contact your local Bio-Rad Sales or Technical Services Group.
- ❖ INTERNATIONAL USE ONLY - The following section contains data for methods that are not available for diagnostic use in the United States.

DEUTSCH

- (1) Endogene Konzentrationen.
- (2) Keine Wertangaben.
- (3) Nur enzymatische Methoden.
- (4) Die Werte wurden bei 37°C ermittelt.
- (5) Der Mittelwert wurde aus Daten errechnet, die mit Hilfe von Geräten unter Anwendung dieser Methode erzielt wurden.
- (6) mg/dl Harnstoff-Stickstoff x 2,14 = mg/dl Harnstoff. Die Bereiche der SI-Einheiten sind als Harnstoff angegeben.
- (7) Dieses Produkt wurde mit den in der Packungsbeilage angegebenen Methoden getestet. Die Leistungsmerkmale dieses Produkts wurden nicht mit kapillarelektrophoretischen Methoden überprüft.
- ▲ Daten zum Zeitpunkt der Drucklegung noch nicht verfügbar. Bitte erfragen.
- § Für die Ermittlung der Zielwerte für diesen Test standen nicht genügend Zielwertermittler zur Verfügung. Falls Ihre Einrichtung interessiert ist, bei künftigen Zielwertermittlungen für diesen Test teilzunehmen, kontaktieren Sie bitte das Kundendienst-Team Ihrer lokalen Bio-Rad Niederlassung.
- ❖ NUR ZUM GEBRAUCH AUSSERHALB DER USA - Der folgende Abschnitt enthält Zielwertangaben für Tests / Methoden, die in den USA nicht für diagnostische Zwecke erhältlich sind.

FRANÇAIS

- (1) Taux endogènes.
- (2) Les valeurs ne sont pas fournies.
- (3) Méthodes enzymatiques uniquement.
- (4) Les valeurs ont été obtenues à 37°C.
- (5) La valeur moyenne est calculée à partir de données générées par les appareils utilisant cette méthode.
- (6) mg/dL azote uréique x 2,14 = mg/dL URÉE. La plage de valeurs S.I. fait référence à l'URÉE.
- (7) Ce produit a été testé au moyen des méthodologies indiquées dans la notice. La performance de ce produit n'a pas été évaluée pour une utilisation avec des méthodes d'électrophorèse capillaire.
- ▲ Données non disponibles à la date d'impression. Prière de se renseigner.
- § Le nombre de données n'a pas été suffisant pour définir la moyenne et les limites acceptables pour ce dosage en raison du manque de laboratoires pour établir ces valeurs. Si votre laboratoire souhaite participer à l'élaboration de ces valeurs, veuillez contacter votre correspondant Bio-Rad.
- ❖ À UTILISER UNIQUEMENT HORS DES ÉTATS-UNIS - La section suivante contient des données concernant des méthodes qui ne sont pas disponibles pour un usage diagnostique aux États-Unis.

ITALIANO

- (1) Livelli endogeni.
- (2) Valori non forniti.
- (3) Solo metodi enzimatici.
- (4) I valori sono stati ottenuti a 37°C.
- (5) Il valore medio è calcolato dai dati generati da strumenti che utilizzano questa metodologia.
- (6) mg/dL azoto ureico x 2,14 = mg/dL UREA. L'intervallo del valore S.I.U. viene espresso come UREA.
- (7) Questo prodotto è stato testato usando le metodologie indicate nell'inserto. Non sono state valutate le prestazioni di questo prodotto per l'uso con i metodi di elettroforesi capillare.
- ▲ Dati non disponibili al momento della stampa. Si prega di richiederli.
- § A causa della bassa o nulla partecipazione nell'assegnazione valori, la media e gli intervalli di riferimento per questo dosaggio non sono stati definiti. Contattare gli uffici locali per maggiori chiarimenti.
- ❖ SOLO PER USO INTERNAZIONALE - La sezione che segue contiene dati per metodi ad uso diagnostico che non sono disponibili negli Stati Uniti.

ESPAÑOL

- (1) Niveles endógenos.
- (2) No se proporcionan valores.
- (3) Sólo métodos enzimáticos.
- (4) Los valores se obtuvieron a 37°C.
- (5) La media se calcula a partir de los datos generados por los instrumentos que utilizan este método.
- (6) mg/dL de Urea Nitrogenada x 2,14 = mg/dL de UREA. El rango de valor de SI se expresa como UREA.
- (7) Este producto se ha analizado mediante las metodologías enumeradas en el prospecto. El funcionamiento de este producto no se ha evaluado para su uso con métodos de electroforesis capilar.
- ▲ No se disponía de datos en el momento que se imprimió este prospecto. Consulte cualquier duda.
- § Debido a la baja o nula participación en la asignación de valores, no se ha podido establecer los valores medios y rangos aceptables de este ensayo. Si su centro de trabajo está interesado en participar en la valoración de este ensayo, por favor contacte con su oficina local de Bio-Rad.
- ❖ SÓLO PARA USO INTERNACIONAL - El siguiente apartado presenta información referente a métodos no disponibles para uso diagnóstico en Estados Unidos.

PORTUGUÊS

- (1) Níveis endógenos.
- (2) Não são fornecidos valores.
- (3) Somente métodos enzimáticos.
- (4) Os valores foram obtidos a uma temperatura de 37°C.
- (5) O valor médio é calculado com base em dados determinados por instrumentos utilizando este método.
- (6) mg/dl nitrogénio de ureia x 2,14 = mg/dl UREIA. O limite do valor S.I.U. é expresso como UREIA.
- (7) Este produto foi testado com as metodologias listadas no folheto informativo. O desempenho deste produto não foi avaliado quanto à sua utilização com métodos de electroforese capilar.
- ▲ Os dados não se encontravam disponíveis na altura da impressão do folheto. Por favor, contacte a Bio-Rad Laboratories.
- § Os dados necessários para a obtenção da média e do intervalo de referência para este analito não foram obtidos dada a limitada participação na atribuição de valores. Se estiver interessado em participar no nosso Programa de Atribuição de Valores, por favor entre em contacto com o seu representante local.
- ❖ APENAS PARA UTILIZAÇÃO INTERNACIONAL - A secção que se segue contém dados para métodos que não estão disponíveis para utilização em diagnóstico nos Estados Unidos.

SVENSKA

- (1) Endogena nivåer.
- (2) Värden tillhandahålls ej.
- (3) Endast enzymatiska metoder.
- (4) Värdena erhöills vid 37°C.
- (5) Medelvärdet har beräknats på data som genererats av instrument med användning av denna metod.
- (6) mg/dL ureakväve x 2,14 = mg/dL UREA. S.I.U. värdeområde uttrycks som UREA.
- (7) Produkten har testats med de metoder som anges i bipacksedeln. Produktens prestanda har ej utvärderats för användning med kapillärelektroforetiska metoder.
- ▲ Data ej tillgängliga vid utgivningsdatum. Data kan begäras.
- § Nödvändig data för att fastställa medelvärden och acceptabla mätområden för denna analys kunde inte insamlas på grund av ett alltför begränsat deltagarantal vid tilldelning av värden. Om din institution/ditt laboratorium önskar delta i programmet för tilldelning av värden (Value Assignment Program) för denna analys, var god kontakta Bio-Rads försäljningsavdelning eller tekniska serviceavdelning.
- ❖ ENDAST FÖR INTERNATIONELLT BRUK - Följande avsnitt innehåller data för metoder som inte är tillgängliga för diagnostiskt bruk i USA.

DANSK

- (1) Endogene niveauer.
- (2) Værdier er ikke angivet.
- (3) Kun enzymmetoder.
- (4) Værdierne blev opnået ved 37°C.
- (5) Gennemsnitsværdien er beregnet ud fra data genereret af instrumenter efter denne metode.
- (6) mg/dL ureanitrogen x 2,14 = mg/dL UREA. S.I.U. værdiområder udtrykkes som UREA.
- (7) Dette produkt er blevet testet iht. de metoder, der er angivet i indlægssedlen. Dette produkts ydeevne er ikke blevet evalueret til brug med kapillære elektroforesemetoder.
- ▲ Data var ikke tilgængelige ved trykning af denne indlægsseddel. Kan rekvireres.
- § P.g.a. for lille tilslutning til vores "Value Assignment Program" har det desværre ikke været muligt at have middelværdien og standart variationen værdien med på denne analyse. Skulle du/i være interesseret i at deltage i dette program for denne analyse, så kontakt venligst det lokale Bio-Rad.
- ❖ KUN TIL INTERNATIONAL BRUG - Følgende afsnit indeholder data til metoder, der ikke er tilgængelige til diagnostisk anvendelse i USA.

- INTERNATIONAL USE ONLY -

The following section contains data for methods that are not available for diagnostic use in the United States. ❖

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METHOD														
Methode // Méthode // Metodo // Método // Método // Metod // Metode														
	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range
ALANINE AMINOTRANSFERASE (ALT/SGPT)														
Sekisui Medical Pureauto S, Auto sera S, Qualigent ALT (UV without P5P) (4)	U/L	27.0	23.0 – 31.0	94.0	84.0 – 104	217	207 – 227	µmol/L/sec	0.451	0.384 – 0.518	1.57	1.40 – 1.74	3.62	3.46 – 3.79
Sekisui Medical Pureauto S, Qualigent ALT-L (UV without P5P) (4)	U/L	28.0	24.0 – 32.0	93.0	83.0 – 103	216	196 – 236	µmol/L/sec	0.468	0.401 – 0.534	1.55	1.39 – 1.72	3.61	3.27 – 3.94
ALBUMIN														
Sekisui Medical Clinimate, Auto sera (Dye Binding-BCG)	g/dL	2.60	2.30 – 2.90	3.30	2.90 – 3.70	4.30	3.80 – 4.80	g/L	26.0	23.0 – 29.0	33.0	29.0 – 37.0	43.0	38.0 – 48.0
ALKALINE PHOSPHATASE (ALP)														
Sekisui Medical Pureauto S, Auto sera S, Qualigent ALP (4)	U/L	109	94.0 – 124	374	334 – 414	687	617 – 757	µmol/L/sec	1.82	1.57 – 2.07	6.25	5.58 – 6.91	11.5	10.3 – 12.6
AMYLASE														
Sekisui Medical Pureauto S, Auto sera S AMY (4)	U/L	46.0	39.0 – 53.0	135	115 – 155	273	233 – 313	µmol/L/sec	0.768	0.651 – 0.885	2.25	1.92 – 2.59	4.56	3.89 – 5.23
Sekisui Medical Pureauto S, Qualigent AMY-G2 (4)	U/L	51.0	44.0 – 58.0	177	157 – 197	371	331 – 411	µmol/L/sec	0.852	0.735 – 0.969	2.96	2.62 – 3.29	6.20	5.53 – 6.86
AMYLASE, PANCREATIC														
Sekisui Medical Pureauto S, Qualigent P-AMY-G2 (4)	U/L	35.0	28.0 – 42.0	153	133 – 173	341	301 – 381	µmol/L/sec	0.585	0.468 – 0.701	2.56	2.22 – 2.89	5.69	5.03 – 6.36
ASPARTATE AMINOTRANSFERASE (AST/SGOT)														
Sekisui Medical Pureauto S, Auto sera S, Qualigent AST (UV without P5P) (4)	U/L	40.0	36.0 – 44.0	111	101 – 121	254	234 – 274	µmol/L/sec	0.668	0.601 – 0.735	1.85	1.69 – 2.02	4.24	3.91 – 4.58
Sekisui Medical Pureauto S, Qualigent AST-L (UV without P5P) (4)	U/L	41.0	37.0 – 45.0	111	101 – 121	256	236 – 276	µmol/L/sec	0.685	0.618 – 0.752	1.85	1.69 – 2.02	4.28	3.94 – 4.61
BILIRUBIN, DIRECT														
Sekisui Medical Clinimate D-BIL-2	mg/dL	0.400	0.100 – 0.700	1.90	1.50 – 2.30	3.40	2.90 – 3.90	µmol/L	6.84	1.71 – 12.0	32.5	25.7 – 39.3	58.1	49.6 – 66.7
Sekisui Medical Unimed y D-BIL-LQ	mg/dL	0.200	0.050 – 0.350	1.20	0.800 – 1.60	2.60	2.10 – 3.10	µmol/L	3.42	0.855 – 5.99	20.5	13.7 – 27.4	44.5	35.9 – 53.0
BILIRUBIN, TOTAL														
Sekisui Medical Clinimate BIL-2	mg/dL	0.500	0.200 – 0.800	3.00	2.60 – 3.40	6.90	6.40 – 7.40	µmol/L	8.55	3.42 – 13.7	51.3	44.5 – 58.1	118	109 – 127
Sekisui Medical Unimed y T-BIL-LQ	mg/dL	0.650	0.400 – 0.900	3.10	2.70 – 3.50	7.00	6.50 – 7.50	µmol/L	11.1	6.84 – 15.4	53.0	46.2 – 59.9	120	111 – 128
C3 COMPLEMENT (1)														
Sekisui Medical Immunotesta C3	mg/dL	87.0	77.0 – 97.0	113	103 – 123	142	132 – 152	g/L	0.870	0.770 – 0.970	1.13	1.03 – 1.23	1.42	1.32 – 1.52
C4 COMPLEMENT (1)														
Sekisui Medical Immunotesta C4	mg/dL	16.0	13.0 – 19.0	21.0	18.0 – 24.0	26.0	23.0 – 29.0	g/L	0.160	0.130 – 0.190	0.210	0.180 – 0.240	0.260	0.230 – 0.290
CALCIUM, TOTAL														
Sekisui Medical Clinimate, Qualigent CA	mg/dL	4.50	2.90 – 6.10	8.10	7.10 – 9.10	11.1	9.70 – 12.5	mmol/L	1.13	0.725 – 1.53	2.03	1.78 – 2.28	2.78	2.43 – 3.13
CHLORIDE														
Sekisui Medical Internal Standard Solution -K/-B, Diluent -K/-B	mEq/L	73.0	67.0 – 79.0	98.0	92.0 – 104	>120		mmol/L	73.0	67.0 – 79.0	98.0	92.0 – 104	>120	
CHOLESTEROL, HIGH DENSITY LIPOPROTEIN (HDL)														
Sekisui Medical Cholestest N, Qualigent N HDL	mg/dL	34.0	27.0 – 41.0	58.0	48.0 – 68.0	98.0	84.0 – 112	mmol/L	0.881	0.699 – 1.06	1.50	1.24 – 1.76	2.54	2.18 – 2.90
CHOLESTEROL, LOW DENSITY LIPOPROTEIN (LDL)														
Sekisui Medical Cholestest, Qualigent LDL	mg/dL	57.0	50.0 – 64.0	75.0	65.0 – 85.0	114	100 – 128	mmol/L	1.48	1.30 – 1.66	1.94	1.68 – 2.20	2.95	2.59 – 3.32
CHOLESTEROL, TOTAL														
Sekisui Medical Cholestest, Qualigent CHO	mg/dL	108	98.0 – 118	175	161 – 189	272	254 – 290	mmol/L	2.80	2.54 – 3.06	4.53	4.17 – 4.90	7.04	6.58 – 7.51
Sekisui Medical Pureauto S CHO-N	mg/dL	109	99.0 – 119	174	160 – 188	271	253 – 289	mmol/L	2.82	2.56 – 3.08	4.51	4.14 – 4.87	7.02	6.55 – 7.49
COPPER (1)														
Sentinel Diagnostics (Colorimetric)	µg/dL	50.9	40.7 – 61.1	59.5	47.6 – 71.4	78.9	63.1 – 94.7	µmol/L	7.99	6.39 – 9.59	9.34	7.47 – 11.2	12.4	9.91 – 14.9
CREATINE KINASE (CK)														
Sekisui Medical Pureauto S CK (4)	U/L	96.0	76.0 – 116	297	257 – 337	726	666 – 786	µmol/L/sec	1.60	1.27 – 1.94	4.96	4.29 – 5.63	12.1	11.1 – 13.1
Sekisui Medical Pureauto S, Qualigent CK-L (4)	U/L	95.0	75.0 – 115	292	252 – 332	710	650 – 770	µmol/L/sec	1.59	1.25 – 1.92	4.88	4.21 – 5.54	11.9	10.9 – 12.9
CREATININE														
Sekisui Medical Clinimate CRE	mg/dL	0.700	0.300 – 1.10	2.00	1.60 – 2.40	6.30	5.80 – 6.80	µmol/L	61.9	26.5 – 97.2	177	141 – 212	557	513 – 601
Sekisui Medical Pureauto S CRE-L	mg/dL	0.500	0.200 – 0.800	1.80	1.40 – 2.20	6.30	5.80 – 6.80	µmol/L	44.2	17.7 – 70.7	159	124 – 194	557	513 – 601
Sekisui Medical Pureauto S, Qualigent CRE-N	mg/dL	0.600	0.300 – 0.900	1.90	1.50 – 2.30	6.50	6.00 – 7.00	µmol/L	53.0	26.5 – 79.6	168	133 – 203	575	530 – 619
GAMMA GLUTAMYLTRANSFERASE (GGT)														
Sekisui Medical Pureauto S GGT (4)	U/L	29.0	23.0 – 35.0	89.0	77.0 – 101	137	119 – 155	µmol/L/sec	0.484	0.384 – 0.585	1.49	1.29 – 1.69	2.29	1.99 – 2.59
Sekisui Medical Pureauto S, Qualigent γ-GT (4)	U/L	30.0	24.0 – 36.0	90.0	78.0 – 102	140	122 – 158	µmol/L/sec	0.501	0.401 – 0.601	1.50	1.30 – 1.70	2.34	2.04 – 2.64
GLUCOSE														
Dr. Mueller Geratebau GmbH SUPER G, Super GL – Serie	mg/dL	63.2	56.2 – 70.3	126	112 – 139	378	337 – 420	mmol/L	3.51	3.12 – 3.90	6.97	6.20 – 7.74	21.0	18.7 – 23.3
EKF and Eppendorf (BIOSN - and EBIO - Analyzer) GOD-Membran	mg/dL	62.5	55.7 – 69.4	121	107 – 134	358	318 – 397	mmol/L	3.47	3.09 – 3.85	6.70	5.96 – 7.43	19.8	17.7 – 22.0
GOD-POD Membrane	mg/dL	62.9	50.3 – 75.5	123	98.5 – 148	368	294 – 442	mmol/L	3.49	2.79 – 4.19	6.84	5.47 – 8.20	20.4	16.3 – 24.5
Kabe Labortechnik GmbH - GA 1 mit GOD-Enzymmembran	mg/dL	64.9	57.8 – 72.1	123	109 – 136	364	324 – 404	mmol/L	3.60	3.21 – 4.00	6.80	6.05 – 7.55	20.2	18.0 – 22.4
Kabe Labortechnik GmbH - GA 2 mit Dickschichtelektrode - DSE	mg/dL	66.7	59.4 – 74.1	125	111 – 139	365	325 – 405	mmol/L	3.70	3.30 – 4.11	6.94	6.17 – 7.70	20.2	18.0 – 22.5
Sekisui Medical Pureauto S GLU	mg/dL	60.0	54.0 – 66.0	118	108 – 128	356	342 – 370	mmol/L	3.33	3.00 – 3.66	6.55	5.99 – 7.10	19.8	19.0 – 20.5
Sekisui Medical Pureauto S, Qualigent GLU-R	mg/dL	61.0	55.0 – 67.0	119	109 – 129	355	341 – 369	mmol/L	3.39	3.05 – 3.72	6.60	6.05 – 7.16	19.7	18.9 – 20.5
IMMUNOGLOBULIN A (IgA) (1)														
Sekisui Medical Pureauto S IgA	mg/dL	128	118 – 138	162	147 – 177	198	183 – 213	g/L	1.28	1.18 – 1.38	1.62	1.47 – 1.77	1.98	1.83 – 2.13
IMMUNOGLOBULIN G (IgG) (1)														
Sekisui Medical Pureauto S IgG	mg/dL	647	617 – 677	787	757 – 817	956	926 – 986	g/L	6.47	6.17 – 6.77	7.87	7.57 – 8.17	9.56	9.26 – 9.86

INTERNATIONAL USE ONLY -

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	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range
IMMUNOGLOBULIN M (IgM) (1)														
Sekisui Medical Pureauto S IgM	mg/dL	64.0	54.0 – 74.0	73.0	63.0 – 83.0	93.0	83.0 – 103	g/L	0.640	0.540 – 0.740	0.730	0.630 – 0.830	0.930	0.830 – 1.03
LACTATE (LACTIC ACID)														
Dr. Mueller Gratebau GmbH SUPER G, Super GL - Serie EKF und Eppendorf	mg/dL	14.5	12.9 – 16.1	32.6	29.0 – 36.2	58.0	51.6 – 64.4	mmol/L	1.61	1.43 – 1.79	3.62	3.22 – 4.02	6.44	5.73 – 7.15
(BIOSEN-, EBIObasic-und EBIOcompact-Analysatoren) LOD	mg/dL	16.7	14.9 – 18.6	34.3	30.5 – 38.1	58.6	52.2 – 65.0	mmol/L	1.85	1.65 – 2.06	3.81	3.39 – 4.23	6.50	5.79 – 7.22
LACTATE DEHYDROGENASE (LDH)														
Sekisui Medical Pureauto S LD-P (4)	U/L	242	212 – 272	363	328 – 398	857	817 – 897	µmol/L/sec	4.04	3.54 – 4.54	6.06	5.48 – 6.65	14.3	13.6 – 15.0
Sekisui Medical Pureauto S, Qualigent LD (4)	U/L	110	102 – 118	163	143 – 183	373	338 – 408	µmol/L/sec	1.84	1.70 – 1.97	2.72	2.39 – 3.06	6.23	5.64 – 6.81
LAP ARYLAMIDASE (1)														
Sekisui Medical Pureauto LAP (4)	U/L	31.0	27.0 – 35.0	39.0	33.0 – 45.0	48.0	42.0 – 54.0	µmol/L/sec	0.518	0.451 – 0.585	0.651	0.551 – 0.752	0.802	0.701 – 0.902
MAGNESIUM														
Sekisui Medical Clinimate, Qualigent MG	mg/dL	0.500	0.200 – 0.800	2.00	1.50 – 2.50	3.50	2.80 – 4.20	mmol/L	0.206	0.082 – 0.329	0.823	0.617 – 1.03	1.44	1.15 – 1.73
PHOSPHORUS														
Sekisui Medical Clinimate IP	mg/dL	1.90	1.50 – 2.30	4.00	3.20 – 4.80	6.80	5.60 – 8.00	mmol/L	0.614	0.485 – 0.743	1.29	1.03 – 1.55	2.20	1.81 – 2.58
Sekisui Medical Clinimate, Qualigent IP-2	mg/dL	1.90	1.50 – 2.40	4.00	3.20 – 4.80	6.90	5.70 – 8.10	mmol/L	0.614	0.485 – 0.775	1.29	1.03 – 1.55	2.23	1.84 – 2.62
POTASSIUM														
Sekisui Medical Internal Standard Solution -K/-B, Dilutent -K/-B	mEq/L	2.50	2.20 – 2.80	4.00	3.70 – 4.30	7.50	7.20 – 7.80	mmol/L	2.50	2.20 – 2.80	4.00	3.70 – 4.30	7.50	7.20 – 7.80
PROTEIN, TOTAL														
Sekisui Medical Clinimate, Autosera, Qualigent TP	g/dL	4.20	3.70 – 4.70	5.30	4.70 – 5.90	6.80	6.00 – 7.60	g/L	42.0	37.0 – 47.0	53.0	47.0 – 59.0	68.0	60.0 – 76.0
SODIUM														
Sekisui Medical Internal Standard Solution -K/-B, Dilutent -K/-B	mEq/L	113	103 – 123	141	131 – 151	160	150 – 170	mmol/L	113	103 – 123	141	131 – 151	160	150 – 170
TRIGLYCERIDES														
Sekisui Medical Cholestest, Qualigent TG	mg/dL	95.0	89.0 – 101	134	126 – 142	210	200 – 220	mmol/L	1.07	1.01 – 1.14	1.51	1.42 – 1.60	2.37	2.26 – 2.49
Sekisui Medical Pureauto S, Autosera S TG-N	mg/dL	96.0	90.0 – 102	135	127 – 143	211	201 – 221	mmol/L	1.08	1.02 – 1.15	1.53	1.44 – 1.62	2.38	2.27 – 2.50
UREA NITROGEN (BUN) (6)														
Sekisui Medical Pureauto S UN	mg/dL	15.0	12.5 – 17.5	39.8	34.8 – 44.8	68.5	60.5 – 76.5	mmol/L	5.36	4.46 – 6.25	14.2	12.4 – 16.0	24.5	21.6 – 27.3
Sekisui Medical Pureauto S, Qualigent UN-L	mg/dL	14.0	11.5 – 16.5	37.6	32.6 – 42.6	64.1	56.1 – 72.1	mmol/L	5.00	4.11 – 5.89	13.4	11.6 – 15.2	22.9	20.0 – 25.7
URIC ACID														
Sekisui Medical Pureauto S, Autosera S, Qualigent UA	mg/dL	3.30	2.70 – 3.90	5.80	5.00 – 6.60	10.3	9.30 – 11.3	µmol/L	196	161 – 232	345	297 – 393	613	553 – 672

INTERNATIONAL USE ONLY -

The following section contains data for methods that are not available for diagnostic use in the United States. ❖

INSTRUMENT

Gerät // Appareil // Strumento // Instrumento // Instrument // Instrument

	Units	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633		SI	Level 1 - 45631		Level 2 - 45632		Level 3 - 45633	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	Mean	Range
ABBOTT ARCHITECT cSYSTEMS														
Amylase, Pancreatic (Enzymatic) (Sentinel) (4)	U/L	\$		\$		\$		μmol/L/sec	\$		\$		\$	
Copper (Colorimetric) (Sentinel) (1)	μg/dL	50.9	40.7 – 61.1	59.5	47.6 – 71.4	78.9	63.1 – 94.7	μmol/L	7.99	6.39 – 9.59	9.34	7.47 – 11.2	12.4	9.91 – 14.9
BECKMAN COULTER AU 400 / 600 / 640 / 680 / 2700 / 5400														
Acid Phosphatase (Sentinel) (4)	U/L	6.00	4.80 – 7.20	11.0	8.80 – 13.2	22.5	18.0 – 27.0	μmol/L/sec	0.100	0.080 – 0.120	0.184	0.147 – 0.220	0.376	0.301 0.451
Alpha-Hydroxybutyrate														
Dehydrogenase (αHBDH) (Europe/Asia) (1) (4)	U/L	90.4	72.3 – 108	143	114 – 172	353	283 – 424	μmol/L/sec	1.51	1.21 – 1.81	2.39	1.91 – 2.87	5.90	4.72 – 7.08
Lithium (Colorimetric) (Infinity) (Europe)	mEq/L	0.572	0.515 – 0.629	1.35	1.21 – 1.48	1.97	1.77 – 2.16	mmol/L	0.572	0.515 – 0.629	1.35	1.21 – 1.48	1.97	1.77 – 2.16
BECKMAN COULTER SYNCRON LX / UniCel DxC SERIES														
Cholinesterase (Butryl/thiocholine, CHEX) (1) (4)	U/L	4397	3517 – 5276	6050	4840 – 7260	7546	6037 – 9056	μmol/L/sec	73.4	58.7 – 88.1	101	80.8 – 121	126	101 – 151
ROCHE / HITACHI COBAS C SYSTEMS														
Bilirubin, Total (DPD) (BILT2) (Liquid)	mg/dL	▲		▲		▲		μmol/L	▲		▲		▲	
Cholinesterase (Butryl/thiocholine (Trinder)) (Gen.2) (1) (4)	U/L	4164	3331 – 4997	5845	4676 – 7014	7461	5968 – 8953	μmol/L/sec	69.5	55.6 – 83.5	97.6	78.1 – 117	125	99.7 – 150
ROCHE COBAS INTEGRA														
Bilirubin, Total (DPD) (BILT2)	mg/dL	0.508	0.406 – 0.610	2.79	2.23 – 3.35	6.50	5.20 – 7.81	μmol/L	8.69	6.95 – 10.4	47.8	38.2 – 57.3	111	89.0 – 133
ROCHE HITACHI / MODULAR														
Bilirubin, Total (DPD, Granular) (Europe/Asia)	mg/dL	0.521	0.417 – 0.625	2.83	2.26 – 3.39	6.68	5.34 – 8.02	μmol/L	8.91	7.13 – 10.7	48.4	38.7 – 58.0	114	91.4 – 137
Cholinesterase (Butryl/thiocholine (Trinder)) (1) (4)	U/L	4160	3328 – 4992	5932	4746 – 7118	7578	6063 – 9094	μmol/L/sec	69.5	55.6 – 83.4	99.1	79.3 – 119	127	101 – 152
SIEMENS ADVIA CHEMISTRY SYSTEMS														
Alpha-Hydroxybutyrate														
Dehydrogenase (αHBDH) (DGKC) (1) (4)	U/L	108	86.3 – 129	164	132 – 197	390	312 – 468	μmol/L/sec	1.80	1.44 – 2.16	2.75	2.20 – 3.30	6.52	5.21 – 7.82

NOTES

FOR REFERENCE USE ONLY

NOTES

FOR REFERENCE USE ONLY

Autoimmune

Liquichek™ ANA Controls
Centromere Pattern
Homogeneous Pattern
Mitotic Spindle Pattern
Nucleolar Pattern
Speckled Pattern
Liquichek™ ANA Controls Set, Positive (Homogeneous, Speckled, Centromere & Nucleolar Patterns)
Liquichek™ Anti-Mitochondrial Control
Liquichek™ Anti-nDNA Control
Liquichek™ Anti-RNP Control
Liquichek™ Anti-Scl-70 Control
Liquichek™ Anti-Sm Control
Liquichek™ Anti-Smooth Muscle Control
Liquichek™ Anti-SS-A Control
Liquichek™ Anti-SS-B Control
Liquichek™ Autoimmune Negative Control

Blood Gas

Liquichek™ Blood Gas Control
Liquichek™ Blood Gas Plus CO-Oximeter Control (Bayer 800 Series)
Liquichek™ Blood Gas Plus E Control
Liquichek™ Blood Gas Plus EGL Control

Cardiac Assessment

Liquichek™ Cardiac Markers Control LT
Liquichek™ Cardiac Markers Control LT, Level Low
Liquichek™ Cardiac Markers Plus Control
Liquichek™ Cardiac Markers Plus Control LT
Liquichek™ CK/LD Isoenzyme Control
Liquichek™ Homocysteine Control

Chemistry

Lymphocheck® Assayed Chemistry Control
Liquid Assayed & Unassayed Multiqual®
Liquichek™ Ethanol/Ammonia Control
Liquichek™ Lipids Control
Liquichek™ Microalbumin Control
Liquichek™ Pediatric Control
Lymphocheck® Quantitative Urine Control
Liquichek™ & Lymphocheck® Unassayed Chemistry Controls (Human)
Liquichek™ Urine Chemistry Control

Coagulation

Lymphocheck® Coagulation Control
Liquichek™ D-dimer Control
Lymphocheck® Hemostasis Control

Congenital Diseases

Liquichek™ ToRCH Plus Control
Liquichek™ ToRCH Plus IgM Control
VIROCLEAR® MuMZ
VIROTROL® MuMZ
VIROCLEAR® ToRCH
VIROTROL® ToRCH
VIROTROL® ToRCH-M

Diabetes/Hemoglobin

Liquichek™ Diabetes Control
Lymphocheck® Diabetes Control
Lymphocheck® Hemoglobin A1C Linearity Set
Lymphocheck® Hemoglobin A2 Control
Meter Trax™ Control

Drugs of Abuse

Liquichek™ Opiate Control
Liquichek™ Qualitative Urine Toxicology Control
Lymphocheck® Urine Toxicology Control
Liquichek™ Urine Toxicology Negative Control
Liquichek™ Urine Toxicology Controls
Levels C1, C2, C3 & C4
Levels C2 & C3 Low Opiate
Levels S1, S2 & S3
Levels S1 & S2 Low Opiate
Levels S1E & S2E
Levels S1E & S2E Low Opiate
Levels S1S & S2S

Hematology

Liquichek™ Hematology-16 Control
Liquichek™ Hematology-16T Control
Liquichek™ Hematology Controls
(A), (A-1), (C), (S) & (X)
Liquichek™ Reticulocyte Control
Liquichek™ Reticulocyte Controls
(A), (A-1), (S) & (X)
Liquichek™ Sedimentation Rate Control

Hepatitis & Retrovirus

Assayed VIROTROL® I-C, I-E & I-F*
Assayed VIROTROL® II-A & II-B*
VIROCLEAR®

VIROTROL® I, II, III & IV
VIROTROL® HAV IgM
VIROTROL® HBeAg
VIROTROL® Hbc IgM
VIROTROL® HIV-1 Ag
VIROTROL® HIV-2

Immunoassay

Lymphocheck® Anemia Control
Lymphocheck® Fertility Control
Lymphocheck® Hypertension Markers Control
Liquichek™ & Lymphocheck® Immunoassay Plus Controls
Lymphocheck® Maternal Serum Control
Liquichek™ Specialty Immunoassay Control
Liquichek™ Tumor Marker Control
Lymphocheck® Tumor Marker Plus Control

Immunology/Protein

Liquichek™ Elevated CRP Control
Liquichek™ Immunology Control
Lymphocheck® Immunology Plus Control
Liquichek™ Rheumatoid Factor Control
Liquichek™ Spinal Fluid Control

Molecular

AmpliTral™ III
AmpliClear™
AmpliPROBE™ CT/GC
AmpliTral™ CT/GC
AmpliTral™ HPV
ChlamydiaPROBE™
GonoPROBE™

Sexually Transmitted Diseases

VIROTROL® Syphilis Total
VIROTROL® RPR Panel

Specialty

Lymphocheck® Benzo/TCA Control-Set A
Lymphocheck® Benzo/TCA Control-Set B
Lymphocheck® Drug Free Serum
Lymphocheck® Endocrine Control
Liquichek™ Serum Volatiles Control
Lymphocheck® Urine Bone Markers Control
Lymphocheck® Urine Metals Control
Lymphocheck® Whole Blood Control
Lymphocheck® Whole Blood Metals Control
Liquichek™ Whole Blood Volatiles Control

Specialty Infectious Disease

CryptoTral™
CryptoTral™ LX
PneumoTral™
PyloriTral™
VIROCLEAR® EBV
VIROTROL® Chagas
VIROTROL® EBV
VIROTROL® Lyme
VIROTROL® WNV

Therapeutic Drug Monitoring

Liquichek™ & Lymphocheck® Therapeutic Drug Monitoring Controls (TDM)
Lymphocheck® Whole Blood
Immunosuppressant Control

Urinalysis

qUAntify® Control
qUAntify® Plus Control
Liquichek™ Urinalysis Control

Data Management Solutions

Unity™ Interlaboratory Program
UnityConnect™
Unity Real Time®
Unity Real Time® online
Unity Desktop®
UnityWeb®
QCNet™ (www.QCNet.com)
WebConnect™
Westgard Advisor™

External Quality Assurance

Services (EQAS)
Clinical Chemistry Program
Clinical Chemistry (Monthly) Program
Hematology Program
Hemoglobin Program
Immunoassay Programs 1–4
Immunoassay (Monthly) Program
Therapeutic Drug Monitoring Program
Urine Chemistry Program

Bio-Rad Laboratories' umfassende Reihe von Kontrollreagenzien und Datenmanagementlösungen für die Qualitätssicherung.

Gamme complète de produits de contrôle de la qualité et solutions pour la gestion des données de CQ Bio-Rad Laboratories.

Linea completa di controlli di qualità e soluzioni per la gestione dei dati QC di Bio-Rad Laboratories.

Amplia línea de controles de calidad y soluciones de gestión de datos de control de calidad de Bio-Rad Laboratories.

A gama abrangente de controles de qualidade e de soluções de gestão de dados de CQ da Bio-Rad Laboratories.

Bio-Rad Laboratories breda sortiment av kvalitetskontroller och datahanteringslösningar för kvalitetskontroll (QC).

Bio-Rad Laboratories' omfattende sortiment af kvalitetskontrolmateriale og programmer til datastyring af kvalitetskontrol.

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Abaxis, Union City, California
Abbott Laboratories, Diagnostic Division, Abbott Park, Illinois
Alfa Wassermann, Inc., West Caldwell, New Jersey
Beckman Coulter Inc., Brea, California
Dr. Müller Gerätebau, GmbH, Freital, Germany
EFK Diagnostic GmbH, Barleben, Germany
Equal Diagnostics, Exton, Pennsylvania
Greiner, Kremsmünster, Austria
Helena Laboratories, Beaumont, Texas
Horiaba ABX, Montpellier, France
Kabe Labortechnik GmbH, Nümbrecht-Elsenroth, Germany
Ortho Clinical Diagnostics, A Johnson and Johnson Company, Cardiff, United Kingdom
Pointe Scientific Inc., Canton, Michigan

Polymedco, Cordlandt Manor, New York
Roche Diagnostics Corporation, Indianapolis, Indiana
Sebia, Inc., Norcross, Georgia
Sekisui Diagnostics LLC, Farmingham, Massachusetts
Sekisui Diagnostics PEI Inc., Charlottetown, Canada
Sekisui Medical Company Ltd., Tokyo, Japan
Sentinel, Milano, Italy
Siemens Healthcare Diagnostics Inc., Newark, Delaware
Siemens Healthcare Diagnostics Inc., Tarrytown, New York
Synermed International Inc., Westfield, Indiana
Teco Diagnostics, Anaheim, California
TOSOH BioScience, Inc., South San Francisco, California
WAKO Chemicals GmbH, Neuss, Germany



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ECREP

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92430 Marnes-la-Coquette
Phone: (33) 1-4795-6000 / Fax: (33) 1-4741-9133



695

Liquid Assayed Multiquel®

5351



+M235Q6952/\$\$202281445632K

A human serum assayed chemistry control.
Serumkontrolle (human) für die klinische Chemie, mit Zielwertangaben.
Contrôle chimique titré de sérum humain.
Controllo chimico saggiato di siero umano.
Suero Control humano valorado para bioquímica.
Um soro humano de controlo de química ensaiado.
En analyseerad humanserumkontroll för kemiska analyser.
Human serum til analyseeret kemikontrol.

2

T.K. 65-52



LOT 45632

Level 2

12 x 3 mL



EXP 2014-02-28



UNITED STATES, Bio-Rad Laboratories, Irvine, CA
FRANCE, Bio-Rad, Marnes-la-Coquette



695X

Liquid Assayed Multiquel®

5351



+M235Q695X2/\$\$2022814456308

A human serum assayed chemistry control.
Serumkontrolle (human) für die klinische Chemie, mit Zielwertangaben.
Contrôle chimique titré de sérum humain.
Controllo chimico saggiato di siero umano.
Suero Control humano valorado para bioquímica.
Um soro humano de controlo de química ensaiado.
En analyseerad humanserumkontroll för kemiska analyser.
Human serum til analyseeret kemikontrol.

Trilevel
MiniPak

T.K. 65-111



LOT 45630

3 x 3 mL

(1 per level)



EXP 2014-02-28



UNITED STATES, Bio-Rad Laboratories, Irvine, CA
FRANCE, Bio-Rad, Marnes-la-Coquette



694

Liquid Assayed Multiquel®

5351

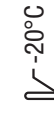


+M235Q6942/\$\$202281445631I

A human serum assayed chemistry control.
Serumkontrolle (human) für die klinische Chemie, mit Zielwertangaben.
Contrôle chimique titré de sérum humain.
Controllo chimico saggiato di siero umano.
Suero Control humano valorado para bioquímica.
Um soro humano de controlo de química ensaiado.
En analyseerad humanserumkontroll för kemiska analyser.
Human serum til analyseeret kemikontrol.

1

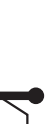
T.K. 65-51



LOT 45631

Level 1

12 x 3 mL



EXP 2014-02-28



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FRANCE, Bio-Rad, Marnes-la-Coquette



696

Liquid Assayed Multiquel®

5351



+M235Q6962/\$\$202281445633M

A human serum assayed chemistry control.
Serumkontrolle (human) für die klinische Chemie, mit Zielwertangaben.
Contrôle chimique titré de sérum humain.
Controllo chimico saggiato di siero umano.
Suero Control humano valorado para bioquímica.
Um soro humano de controlo de química ensaiado.
En analyseerad humanserumkontroll för kemiska analyser.
Human serum til analyseeret kemikontrol.

3

T.K. 65-53



LOT 45633

Level 3

12 x 3 mL



EXP 2014-02-28



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