

# Lyphochek® Assayed Chemistry Control Levels 1 and 2

<b>REF</b>	<b>C-310-5</b>	Level 1	12 x 5 mL	<b>CE</b>	0459	<b>IVD</b>	<b>EXP</b>	2014-04-30	<b>LOT</b>	14410	Level 1	14411
	<b>C-315-5</b>	Level 2	12 x 5 mL								Level 2	14412
	<b>313X</b>	Bilevel MiniPak	2 x 5 mL									

## ENGLISH

### INTENDED USE

Lyphochek Assayed Chemistry Control 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. Two levels of control are available to allow performance monitoring within the clinical range.

### REAGENT

This product is prepared from human serum with added constituents of purified biochemicals (tissue extracts of human and animal origin), chemicals, therapeutic drugs, preservatives and stabilizers. The control is provided in lyophilized form for increased stability.

### STORAGE AND STABILITY

This product will be stable until the expiration date when stored unopened at 2 to 8°C. Once the control is reconstituted, all analytes will be stable for 7 days when stored tightly capped at 2 to 8°C with the following exceptions: Acid Phosphatase and Prostatic Acid Phosphatase will be stable for 3 days when stored tightly capped at 2 to 8°C.

After reconstituting and freezing the control all analytes will be stable for 30 days when stored tightly capped at -10 to -20°C with the following exceptions: Tobramycin will be stable for 20 days when the control is stored tightly capped at -10 to -20°C. Once thawed, do not refreeze the control; discard remaining material.

This product is shipped under ambient conditions.

### RECONSTITUTION

Using a volumetric pipet, reconstitute each vial with 5.0 mL of distilled or deionized water. Replace the stopper and allow the control to stand for 20 minutes, swirling occasionally. Before sampling, gently swirl the vial several times to ensure homogeneity. If performing trace metal analysis, do not mix by inversion.

### 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. Replace the stopper securely 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

- This product should not be used past the expiration date.
- If there is evidence of microbial contamination or excessive turbidity in the reconstituted control, discard the vial.
- This product is not intended for use as a standard.

### 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](http://www.qcnet.com) for insert update information.

### SPECIFIC PERFORMANCE CHARACTERISTICS

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

## DEUTSCH

### VORGESEHENER VERWENDUNGSZWECK

Die Lyphochek Assayed Chemistry Control 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 zwei Level dieser Kontrolle ermöglichen eine umfassende Qualitätssicherung im gesamten klinisch relevanten Bereich.

### REAGENT

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 wurde zur Verbesserung der Stabilität lyophilisiert.

### LAGERUNG UND HALTBARKEIT

Dieses Produkt ist bis zum angegebenen Haltbarkeitsdatum stabil, wenn es ungeöffnet bei 2-8°C gelagert wird. Nach Rekonstitution der Kontrolle sind alle Analyte 7 Tage lang stabil, wenn das Kontrollmaterial fest verschlossen bei 2-8°C aufbewahrt wird. Ausnahme: Saure Phosphatase und Prostate-Saure Phosphatase sind 3 Tage stabil, wenn die Kontrolle dicht verschlossen bei 2-8°C gelagert wird.

Wenn das Kontrollmaterial nach Rekonstitution eingefroren wird, sind alle Analyte 30 Tage lang stabil, sofern die Kontrolle dicht verschlossen bei -10 bis -20°C gelagert wird. Ausnahme: Tobramycin ist 20 Tage stabil. Das Kontrollmaterial nach dem Auftauen nicht erneut einfrieren; überschüssiges Material verworfen.

Dieses Produkt wird unter Umgebungsbedingungen versandt.

### REKONSTITUTION

In jedes Fläschchen mit einer Vollpipette genau 5,0 ml destilliertes oder deionisiertes Wasser pipettieren. Mit den Stopfen verschliessen, sorgfältig mischen und bis zur vollständigen Rekonstitution 20 Minuten stehen lassen, dabei gelegentlich umschwenken. Um die Homogenität sicherzustellen, vor Entnahme einer Probe nochmals vorsichtig durchmischen.

Wenn die Kontrolle für die Spurenelementanalytik eingesetzt werden soll, darf sie nicht durch Umdrehen durchgemischt werden.

### HANDHABUNG

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

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

### EINSCHRÄNKUNGEN

- Dieses Produkt nach Ablauf des Haltbarkeitsdatums nicht mehr verwenden.
- Bei Anzeichen einer mikrobiellen Kontamination oder einer starken Trübung der rekonstituierten Kontrolle, ist das Fläschchen zu verwerfen.
- Dieses Produkt ist nicht zur Verwendung als Standard geeignet.

### 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](http://www.qcnet.com/de).

### SPEZIFISCHE EIGENSCHAFTEN

Dieses gefriergetrocknete Produkt wurde nach strengen Qualitätsstandards hergestellt. Richtige und präzise Ergebnisse erfordern sachgerechte Lagerung und Handhabung wie angegeben.

## FRANÇAIS

### UTILISATION

Lyphochek Assayed Chemistry Control est un sérum titré de contrôle de la qualité permettant de surveiller la précision des tests réalisés en laboratoire pour les analytes 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. Deux concentrations sont disponibles afin de permettre un contrôle de la qualité sur l'ensemble de la plage de valeurs cliniques.

### REACTIF

Ce produit est préparé à partir de sérum humain auquel ont été ajoutés des constituants de produits biochimiques purifiés (extraits de tissus d'origines humaine et animale), des produits chimiques, des médicaments thérapeutiques, des agents conservateurs et des stabilisants. Le contrôle est fourni sous forme lyophilisée pour assurer une meilleure stabilité.

### CONSERVATION ET STABILITE

Ce produit restera stable jusqu'à la date de péremption en flacon non ouvert et conservé entre 2 et 8°C. Une fois le contrôle reconstitué, tous les analytes seront stables pendant 7 jours en flacon convenablement fermé et conservé entre 2 et 8°C, à l'exception de la phosphatase acide et la phosphatase acide prostatique qui resteront stables pendant 3 jours en flacon convenablement fermé et conservé entre 2 et 8°C.

Une fois le contrôle reconstitué et congelé, tous les analytes resteront stables pendant 30 jours en flacon convenablement fermé et conservé entre -10 et -20°C, à l'exception de la tobramycine qui restera stable pendant 20 jours en flacon convenablement fermé et conservé entre -10 et -20°C. Une fois le contrôle décongelé, ne pas le recongeler, et éliminer le produit restant.

Ce produit est expédié sous conditions ambiantes.

### RECONSTITUTION

A l'aide d'une pipette volumétrique, reconstituer chaque flacon avec 5,0 ml d'eau distillée ou désionisée. Remplacer le bouchon et laisser le produit reposer pendant 20 minutes, en l'agitant de temps en temps. Avant utilisation, homogénéiser le produit en agitant plusieurs fois le flacon. Ne pas mélanger par retournement si une analyse de trace métallique doit être effectuée.

### MODE OPERATOIRE

Ce produit doit être traité comme les échantillons de patients, en respectant les instructions accompagnant l'appareil, le kit ou le réactif utilisés. Bien reboucher le flacon après chaque utilisation.

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 du contrôle reconstitué, éliminer le flacon.
- Ce produit n'est pas conçu pour être utilisé comme étalon.

### DETERMINATION 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.

Consultez le site [www.qcnet.com](http://www.qcnet.com) pour obtenir une mise à jour de la notice.

### CARACTERISTIQUES

Ce produit lyophilisé est 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.

<b>REF</b>	<b>CE</b>	<b>IVD</b>	<b>EXP</b>	<b>LOT</b>					<b>EC</b>	<b>REP</b>		5.0 mL H <sub>2</sub> O
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ITALIANO

USO PREVISTO

Il Lyphochek Assayed Chemistry Control 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 disponibile due livelli di controllo.

REATTIVO

Questo prodotto è stato preparato utilizzando siero umano con aggiunta di sostanze biochimiche purificate (estratti di tessuto di origine umana e animale), sostanze chimiche, farmaci terapeutici, conservanti e stabilizzanti. Questo controllo è fornito in forma liofila per aumentarne la stabilità.

CONSERVAZIONE E STABILITÀ

Questo prodotto rimane stabile fino alla data di scadenza quando viene conservato, non aperto, a 2-8°C. Una volta che il controllo è ricostituito, tutti gli analiti sono stabili per 7 giorni quando il controllo è conservato, ben chiuso, a 2-8°C con le seguenti eccezioni: fosfatasi acida e fosfatasi acida prostatica saranno stabili per 3 giorni se conservati ben chiusi a 2-8°C.

Una volta ricostituito e congelato, tutti gli analiti sono stabili per 30 giorni quando il controllo è conservato, ben chiuso, a -10°/-20°C, con l'eccezione di Tobramicina che è stabile 20 giorni in contenitore ben chiuso a -10°/-20°C. Una volta scongelato, non ricongelare il controllo e gettare quanto rimasto.

Il prodotto viene spedito in normali condizioni ambientali.

RICOSTITUZIONE

Con una pipetta volumetrica, ricostituire ogni flacone con 5,0 ml di acqua distillata o deionizzata. Chiudere e lasciare riposare il prodotto per circa 20 minuti, agitando di tanto in tanto. Prima dell'uso, agitare delicatamente il flacone diverse volte per garantirne l'omogeneità. Non mescolare per inversione nelle analisi dei metalli in traccia.

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. Chiudere bene dopo ogni utilizzo.

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 torbidezza nel controllo ricostituito, eliminare il flacone.
- Questo prodotto non è concepito per l'uso come standard.

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 campionatura 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](http://www.qcnet.it) per informazioni sull'aggiornamento dell'inserto.

CARATTERISTICHE

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

ESPAÑOL

USO INTENCIONADO

Lyphochek Assayed Chemistry Control 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 analitos que se enumeran en este prospecto.

INTRODUCCIÓN Y PRINCIPIO

El uso de materiales de 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 dos 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 constituyentes bioquímicos purificados (extractos de tejido de origen humano y animal), sustancias químicas, drogas terapéuticas, conservantes y estabilizadores. El control se suministra liofilizado para aumentar su estabilidad.

CONSERVACIÓN Y ESTABILIDAD

Este producto permanecerá estable hasta la fecha de caducidad, siempre que esté almacenado sin abrir a una temperatura entre 2 y 8°C. Una vez reconstituido el control, si se almacena bien tapado entre 2 y 8°C, todos los analitos permanecerán estables durante 7 días, excepto Fosfatasa Ácida y Fosfatasa Ácida Prostática, que permanecerán estables durante 3 días siempre que se almacene bien tapado entre 2 y 8°C. Una vez reconstituido y congelado el control, siempre que se almacene bien tapado entre -10 y -20°C, todos los analitos permanecerán estables durante 30 días, excepto Tobramicina, que permanecerá estable durante 20 días siempre que se almacene bien tapado entre -10 y -20°C. No vuelva a congelar el control una vez descongelado. Deseche el material sobrante.

Este producto se transporta a temperatura ambiente.

RECONSTITUCIÓN

Utilizando una pipeta volumétrica, reconstituya cada vial con 5,0 ml de agua destilada o desionizada. Vuelva a taparlo y deje reposar el control durante unos 20 minutos, girándolo en círculos de vez en cuando. Antes del muestreo, gire el vial en círculos con suavidad para garantizar su homogeneidad. Si está realizando un análisis para la detección de metales traza, no lo invierta para mezclarlo.

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. Tápelo bien después de cada uso.

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 reconstituido, deseche el vial.
- Este producto no está previsto para ser utilizado como estándar.

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](http://www.qcnet.com).

CARACTERÍSTICAS ESPECÍFICAS DEL PREPARADO

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

PORTUGUÊS

UTILIZAÇÃO

O Lyphochek Assayed Chemistry Control destina-se a ser utilizado como soro de controlo da qualidade 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 dois níveis de controlo para permitir aferir o desempenho dentro dos limites clínicos.

REAGENTE

Este produto é preparado a partir de soro humano acrescido de constituintes de bioquímicos purificados (extractos de tecidos de origem humana e animal), químicos, fármacos terapêuticos, conservantes e estabilizadores. O controlo é fornecido sob forma liofilizada para maior estabilidade.

ARMAZENAMENTO E ESTABILIDADE

Este produto permanecerá estável até ao fim do prazo de validade desde que seja armazenado por abrir a uma temperatura de 2 a 8°C. Depois de o controlo ter sido reconstituído, todas as substâncias a analisar permanecerão estáveis durante 7 dias desde que o produto seja armazenado com a tampa firmemente apertada a uma temperatura de 2 a 8°C, com as seguintes excepções: A fosfatase ácida e fosfatase ácida prostática permanecerão estáveis durante um período de 3 dias quando armazenados com a tampa firmemente apertada a uma temperatura de 2 a 8°C.

Depois de reconstituir e congelar o controlo, todas as substâncias a analisar permanecerão estáveis durante 30 dias desde que sejam armazenadas com a tampa firmemente apertada a uma temperatura de -10 a -20°C com as seguintes excepções: A tobramicina permanecerá estável durante um período de 20 dias quando o controlo é armazenado com a tampa firmemente apertada a uma temperatura de -10 a -20°C. Depois de o controlo ter sido descongelado, não deve voltar a ser congelado; elimine qualquer material restante.

Este produto é enviado em condições de temperatura ambiente.

RECONSTITUIÇÃO

Utilizando uma pipeta volumétrica, reconstitua cada frasco com 5,0 ml de água destilada ou desionizada. Reponha a tampa e deixe o controlo à temperatura ambiente durante 20 minutos, agitando o frasco de vez em quando. Antes de efectuar a recolha da amostra, agite suavemente o frasco várias vezes para assegurar a homogeneidade. Caso esteja a efectuar uma análise aos vestígios de substâncias metálicas, não deve homogeneizar por meio de inversão.

PROCEDIMENTO

Este produto deve ser tratado da mesma forma que as amostras de pacientes e analisado de acordo com as instruções que acompanham o instrumento, o dispositivo ou o reagente que está a ser utilizado. Após cada utilização reponha imediatamente a tampa.

Elimine quaisquer materiais descartados de acordo com as disposições locais em vigor para a eliminação de resíduos biológicos. Na eventualidade de observar 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 controlo reconstituído, elimine o frasco.
- Este produto não deve ser utilizado como padrão.

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](http://www.qcnet.com) para obter informações sobre atualizações de folhetos informativos.

CARACTERÍSTICAS ESPECÍFICAS DE FUNCIONAMENTO

Este produto é um produto liofilizado, fabricado de acordo com padrões rígidos de controlo da qualidade. Para obter valores de análise consistentes de frasco para frasco, o controlo deve ser manuseado e armazenado de acordo com o descrito.

SVENSKA

AVSEDD ANVÄNDNING

Lyphochek Assayed Chemistry Control är avsedd att användas som ett analyserat kvalitetskontrollserum för övervakning av precisionen i laboratoriets analysmetoder, för de analyter som anges i denna bilaga.

SAMMANFATTNING OCH PRINCIP

Användning av kvalitetskontrollmaterial är indicerad för objektiv utvärdering av precisionen i använda metoder och tekniker och ingår i god laboratoriepraxis. Två 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 animaliskt vävnadsextrakt), kemikalier, läkemedel samt konserveringsmedel och stabiliseringsmedel. Kontrollen tillhandahålls i frystorkad form för ökad stabilitet.

FÖRVARING OCH STABILITET

Denna produkt är stabil fram till utgångsdatum vid förvaring i öppnad förpackning vid 2-8°C. Efter att kontrollen har rekonstituerats och vid förvaring i tät försluten flaska vid 2-8°C är alla analyter stabila i 7 dagar, med följande undantag: Sura fosfataser och prostatiska sura fosfataser är stabila i 3 dagar vid förvaring i tätslutande förpackning vid 2 till 8°C.

Efter att kontrollen rekonstituerats och frysts är alla analyter stabila i 30 dagar vid förvaring i tätslutande förpackning vid -10 till -20°C, dock med följande undantag: Tobramycin är stabil i 20 dagar när kontrollen förvaras i tätslutande förpackning vid -10 till -20°C. Produkten får ej återfrysas efter att den har tinats. Kasserat återstående material.

Denna produkt transporteras vid omgivningstemperatur.

REKONSTITUTERING

Använd en volumetrisk pipett och rekonstituera varje flaska med 5,0 mL destillerat eller avjoniserat vatten. Sätt på proppen igen och låt kontrollen stå i 20 minuter, och snurra den då och då för hand. Snurra flaskan försiktigt flera gånger för hand så att innehållet blandas ordentligt före användning. Vid spårmetallanalys ska innehållet inte blandas genom att flaskan vänds upp och ner.

FÖRFARANDE

Denna produkt skall behandlas på samma sätt som patientprover och användas enligt anvisningarna för de instrument, kit och reagenser som används. Förslut flaskan ordentligt efter varje användning.

Kasserat material skall bortskaffas 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 den rekonstituerade produkten är mycket grumlig skall flaskan kasseras.
- Denna produkt är inte avsedd att användas som standard.

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 laboratorieteknik, 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](http://www.qcnet.com) för aktuell bipacksedelsinformation.

SPECIFIKA PRODUKTEGENSKAPER

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

DANSK

TILSIGTET ANVENDELSE

Lyphochek Assayed Chemistry Control er beregnet til anvendelse som en analyseret kvalitetskontrol med henblik på overvågning af præcisionen af laboratoriets analysemetoder for de analytter, der er angivet i indlægsedlen.

RESUMÉ OG PRINCIP

Anvendelse af kvalitetskontrolmaterialeerne er tilsigtet som en objektiv vurdering af de anvendte metoders og teknikkers præcision og er en integreret del af god laboratoriepraksis. Der er to kontrolniveauer tilgængelig inden for det kliniske område, til overvågning af præcision.

REAGENS

Dette produkt er fremstillet af human serum tilsat rensede biokemikalier (vævsekstrakt fra mennesker og dyr), kemikalier, lægemidler, konserveringsmidler og stabilisatorer. Kontrollen leveres i frysetørret form for øget holdbarhed.

OPBEVARING OG STABILITET

Dette produkt er holdbart indtil udløbsdatoen ved opbevaring uåbnet ved 2 til 8°C. Når først kontrolmaterialet er rekonstitueret, er alle analytter holdbare i 7 dage, når de opbevares tæt lukket ved 2 til 8°C, med følgende undtagelse: Sur phosphatase og sur phosphatase fra prostata er holdbar i 3 dage ved opbevaring med tæt lukket låg ved 2 til 8°C.

Efter rekonstitution og frysning af kontrolmidlet er alle analytter holdbare i 30 dage ved opbevaring med tæt lukket låg ved -10 til -20°C, med følgende undtagelser: Tobramycin er holdbar i 20 dage ved opbevaring med tæt lukket låg ved -10 til -20°C. Kontrolmaterialet må ikke fryses igen efter optøning; kassér materialerester.

Dette produkt opbevares i kølet tilstand.

REKONSTRUKTION

Ved brug af en volumetrisk pipette rekonstitueres hvert glas med 5,0 ml destilleret eller deioniseret vand. Sæt proppen i igen, og lad kontrolmaterialet stå i 20 minutter, idet det rystet fra tid til anden. Inden der tages en prøve, skal glasset forsigtigt rystes nogle gange til sikring af homogenitet. Til spormetalanalyse må kontrolmaterialet ikke blandes ved at vende glasset på hovedet.

FREMGAANGSMÅDE

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

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 uklar i det rekonstituerede kontrolmateriale, skal glasset kasseres.
3. Dette produkt er ikke beregnet til anvendelse som standard.

TILDELING AF VÆRDIER

De middelværdier, der er trykt i denne indlægseddell, blev udlæst 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 indlægsedlen 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 laboratorietechnikker, instrumenter og reagenser eller modifikationer i testmetoder fra producentens side. Det anbefales, at laboratorier fastlægger deres egne middelværdier og acceptable referenceområder og kan betragte de medfølgende værdier som vejledende.

Der henvises til [www.qcnet.com](http://www.qcnet.com) vedr. opdateringer af indlægsedlen.

SPECIFIKKE YDELSESEGENSKABER

Dette produkt er et frysetørret produkt, der er produceret under strenge kvalitetskontrolkrav. Kontrolmaterialet skal opbevares korrekt og håndteres som anvist for at give pålidelige resultater.

TÜRKÇE

KULLANIM AMACI

Lyphochek Assayed Chemistry Control, laboratuvar test prosedürlerinin bu prospektüste listelenen analitler için kesinliğini 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 alarıkt performansın takip edilmesi için iki seviye kontrol mevcuttur.

REAKTİF

Bu ürün, saflaştırılmış biyokimya bileşenleri (insan ve hayvan kaynaklı doku ekstraktları), kimyasallar, terapötik ilaçlar, koruyucu maddeler ve stabilizatörlerin eklendiği insan serumundan hazırlanmaktadır. Kontrol stabilitenin artırılması amacıyla liofilize formda sağlanmaktadır.

SAKLAMA VE STABİLİTE

Bu ürün açıldandan 2 ila 8°C arasında saklandığında son kullanma tarihine kadar stabilidir. Kontrol hazırlandıktan sonra, sıkıca kapatılıp 2 ila 8°C arasında saklandığında aşağıdaki istisnalar dışında tüm analitler 7 gün stabilidir: Sıkıca kapatılıp 2 ila 8°C arasında saklandığında Asit Fosfataz ve Prostatik Asit Fosfataz ise 3 gün stabilidir.

Kontrol hazırlandıktan ve dondurulduktan sonra, sıkıca kapatılıp -10 ila -20°C arasında saklandığında aşağıdaki istisnalar dışında tüm analitler 30 gün stabilidir: Kontrol sıkıca kapatılıp -10 ila -20°C arasında saklandığında tobramisin 20 gün stabilidir. Kontrolü çözdürdükten sonra tekrar dondurmayın; kalani atın.

Bu ürün ortam koşulları altında sevk edilir.

HAZIRLAMA

Hacimsel bir pipet kullanarak 5,0 ml distile veya deionize su ile her flakonun içindekileri sulandırın. Kapağını yerine takın ve kontrolü ara sıra karıştırarak 20 dakika boyunca bekletin. Numune almadan önce, homojen hale gelmesini sağlamak için flakonı bir kaç kere yavaşça karıştırın. Eser metal analizi gerçekleştiriliyorsa, tersine çevirerek karıştırmayın.

PROSEDÜR

Bu ürün hasta örnekleri ile aynı muameleye tabi tutulmalıdır ve kullanılmakta olan cihaz, kit veya reaktif ile birlikte verilen talimatlarla uygun olarak çalışmalıdır. Her kullanımdan sonra kapağını sıkıca yerine takın.

Herhangi bir atık malzemeyi 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. Hazırlanan kontrolde mikrobiyal kontaminasyona veya aşırı türbiditye dair bir gösterge varsa, flakonı atın.
3. Bu ürünün bir standart olarak kullanılması amaçlanmamıştır.

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 ayrı 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](http://www.qcnet.com) adresine bakın.

SPEKİFİK PERFORMANS ÖZELLİKLERİ

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

DİPNOTLAR

- (1) Endojen seviyeler.
- (2) Beklenen değerler veya stabilite için herhangi bir öneride bulunulmamıştır.
- (3) Sadece Direkt Yöntemler.
- (4) Değerler verilmemiştir.
- (5) Değerler 37 °C'de elde edilmiştir.
- (6) Ortalama değer, bu yöntem kullanılarak cihaz tarafından oluşturulan verilerden hesaplanır.
- (7) Bu ürün prospektüste listelenmiş metodolojiler kullanılarak test edilmiştir. Bu ürünün performansı kapiler elektroforez yöntemleri kullanılarak değerlendirilmiştir.
- (8) mg/dl Üre Azotu x 2,14 = mg/dl UREA.  
S.I.U. değer aralığı UREA olarak ifade edilir.  
▲ 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 düşünüyorsa, lütfen yerel Bio-Rad Satış veya Teknik Servis Grubu ile irtibata geçin.  
❖ SADECE ULUSLARARASI KULLANIM - Aşağıdaki bölüm Birleşik Devletlerde diagnostik kullanımı için mevcut olmayan yöntemlere dair veriler içermektedir.

日本語

序論

Lyphochek Assayed Chemistry Control (ライフオチェック参考値付 生化学コントロール)は、本インサートに記載されている検査成分を対象とした臨床検査における精度管理のための参考値付コントロール血清です。

概要と意義

測定法や測定技術の精度を客観的に評価するために精度管理物質が使用されます。精度管理物質は、検査室の臨床試験を管理する上で不可欠です。本製品は、臨床的に有意義な2濃度のコントロールとして提供されています。

試薬

本製品はヒト血清をベースとして、精製された生化学物質(ヒトおよび動物由来の抽出成分)、化学物質、治療薬、防腐剤、および安定剤を添加して調製されています。また、長期の安定性を得るために凍結乾燥品となっています。

貯法および安定性

未開封のまま2〜8℃で保存した場合、有効期限まで安定です。溶解後密栓し2〜8℃で保存した場合、酸性ホスファターゼおよび前立腺酸性ホスファターゼは3日間、それ以外の成分は7日間安定です。

溶解後凍結し、密栓して-10〜-20℃で保存した場合、トブラマイシンは20日間、それ以外の成分は30日間安定です。融解後は再凍結せず、残った本製品は廃棄してください。

溶解法

各バイアルは、ホールピペットを用いて、5.0mLの蒸留水または脱イオン水を加えて溶解してください。密栓し、時々回転させながら20分間静置してください。使用前に、溶液が均一になるようにバイアルを数回緩やかに回転させてください。本製品を微量金属分析に使用する場合は、転倒混和しないでください。

使用方法

本製品は、患者検体と同様に取り扱い、使用する測定機器やキット、試薬などの指示に従ってご使用ください。使用後は密栓してください。

廃棄する場合は、国や各自治体の指示に従って廃棄してください。パッケージに損傷のある場合は、バイオ・ラッド ラボラトリーズ(株)へご連絡ください。

使用上の注意

1. 有効期限の過ぎた本製品は、使用しないでください。
2. 溶解後、本製品に微生物の混入や顕著な混濁が認められた場合は、バイアルを廃棄してください。
3. 本製品を標準物質として使用しないでください。

平均値および範囲

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インサート改訂情報については、<http://www.qcnet.com/JP>を参照してください。

性能特性

本製品は、厳しい品質管理基準に従って製造された凍結乾燥品です。バイアル間での測定値の変動を防ぐために、前述したように適切に保存し取り扱ってください。

精度管理用

脚注

- (1) 内因性のレベルを示します。
- (2) 参考値や安定性に関してはデータがありません。
- (3) 直接法のみご使用ください。
- (4) 値は記載されていません。
- (5) 値は37℃で得られたものです。
- (6) 平均値は、この測定法を用いて得られたデータに基づき計算したものです。
- (7) 本製品は本インサートに記載された測定法を用いて測定されています。キャピラリー電気泳動法を用いた本製品の性能に関しては、データがありません。
- (8) mg/dL尿素窒素 x 2.14 = mg/dL尿素。SIU値の範囲は、尿素値を示したものです。  
▲ 本インサート作成時にデータの入手が間に合いませんでした。弊社までお問い合わせください。  
§ データ取りにご協力いただいた供与者が少なかったため、本測定の平均値と許容範囲を設定するために十分なデータを得ることができません。本測定の参考値取りにご協力いただける場合は、バイオ・ラッドラボラトリーズ(株)へご連絡ください。

❖ 米国以外での使用のみ: 次の項には、米国における検査結果には適用されない測定法のデータが含まれています。

問い合わせ先

製品に関するお問い合わせ・ご質問等はこちらのフリーダイヤルをご利用ください。

☎ 0120-925046 (平日9:00〜17:30)

**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 utilisée 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.**  
Hver human donorenhed, der er anvendt ved 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 humant kildematerialer, for hvilke der ikke findes godkendte tests. 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 aynısı ile kullanılmalıdır.  
Profesyonel kullanım için [www.bio-rad.com](#) adresinde Malzeme Güvenlik Veri Sayfası (MSDS) mevcuttur.

**日本語**  
**感染注意**  
本製品はヒト由来成分を含んでいます。ご使用の際は、感染の可能性のあるものとして、検体と同様に十分注意してお取り扱いください。  
ヒト由来物質は、HBs抗原、HCV抗体、およびHIV-1/2抗体検査を米国FDA認定試薬を用いて提供者ごとに行い、陰性の結果を得ています。しかし、現在ヒト由来物質を含む製剤の感染性を完全に否定する測定法は確立されておりません。したがって、本製品をご使用の際はGLPに従い、すべてのヒト由来物質に感染の可能性のあるものとして、十分注意して取り扱ってください。  
バイオ・ラッド製品の製品安全データシート (MSDS) については、[diag\\_jp@bio-rad.com](#)へお問い合わせください。

GLOSSARY	GLOSSAR	GLOSSAIRE	GLOSSARIO	GLOSARIO	GLOSSÁRIO	ORDLISTA	ORDLISTE
<b>ANALYTES</b> Acetaminophen Acid Phosphatase, Total Alanine Aminotransferase (ALT/SGPT)  Albumin Alkaline Phosphatase (ALP) Alpha-Hydroxybutyrate Dehydrogenase (αHBDH) (1) Alpha-1-Antitrypsin (1) Alpha-Fetoprotein (AFP) (1) Amylase Amylase, Alpha Amylase, Pancreatic Apolipoprotein A-1 (1) Apolipoprotein B (1) Aspartate Aminotransferase (AST/SGOT) Bilirubin, Direct Bilirubin, Indirect Bilirubin, Total C3 Complement (1) C4 Complement (1) (2) Calcium Calcium, Ionized (1) Carbamazepine Carbon Dioxide (CO <sub>2</sub> ) Carcinoembryonic Antigen (CEA) (1)  Ceruloplasmin (1) Chloride Cholesterol, High Density Lipoprotein (HDL) (3) Cholesterol, Low Density Lipoprotein (LDL) Cholesterol, Total Cholinesterase (1) Copper (1) Cortisol Creatine Kinase (CK) Creatinine Digoxin Gamma Glutamyltransferase (GGT) Gentamicin Globulin (1) Glucose Glutamate Dehydrogenase (GLDH) (1)  Haptoglobin (1) hCG-Beta Subunit (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 (1) Phenobarbital Phenytoin Phosphorus Potassium Prostate Specific Antigen (PSA) (1)  Prostatic Acid Phosphatase (PAP) (4)  Protein Electrophoresis (1) (7) Protein, Total Salicylate Sodium T <sub>3</sub> Free (1) T <sub>3</sub> Total T <sub>3</sub> Uptake/T Uptake T <sub>4</sub> Free (1) T <sub>4</sub> Total Theophylline Thyroid Stimulating Hormone (TSH)  Thyroxine Binding Globulin (TBG) (1) (4) Tobramycin Transferrin (1) Triglycerides Urea Urea Nitrogen Uric Acid Valproic Acid Vancomycin Vitamin B <sub>12</sub> (1) (4) Zinc (1)	<b>ANALYTE</b> Acetaminophen Saure Phosphatase, gesamt Alanin-Aminotransferase (ALT/SGPT)  Albumin Alkalische Phosphatase (ALP) Alpha-Hydroxybutyrat Dehydrogenase (αHBDH) (1) Alpha-1-Antitrypsin (1) Alpha-Fetoprotein (AFP) (1) Amylase Amylase, Alpha Amylase, pankreatisch Apolipoprotein A-1 (1) Apolipoprotein B (1) Aspartat-Aminotransferase (AST/SGOT) Bilirubin, direktes Bilirubin, indirektes Gesamtbilirubin C3-Komplement (1) C4-Komplement (1) (2) Calcium Calcium, ionisiertes (1) Carbamazepin Kohlendioxid (CO <sub>2</sub> ) Carcinoembryonales Antigen (CEA) (1)  Caeruloplasmin (1) Chloride Cholesterin, Lipoprotein hoher Dichte (HDL) (3) Cholesterin, Lipoprotein niedriger Dichte (LDL) Cholesterin, gesamt Cholinesterase (1) Kupfer (1) Cortisol Kreatinkinase (CK) Kreatinin Digoxin Gamma-Glutamyltransferase (GGT) Gentamicin Globulin (1) Glucose Glutamat-Dehydrogenase (GLDH) (1)  Haptoglobine (1) hCG-Beta-Untereinheit (1) Immunglobulin A (IgA) (1) Immunglobulin G (IgG) (1) Immunglobulin M (IgM) (1) Eisen Totale Eisenbindungskapazität (TEBK) (1) Latente Eisenbindungskapazität (LEBK) (1) Lactat (Milchsäure) Lactatdehydrogenase (LDH) LAP - Arylamidase (1) Lipase Lithium Magnesium Osmolalität (1) Phenobarbital Phenytoin Phosphor Kalium Prostata-spezifisches Antigen (PSA) (1)  Prostata-saure Phosphatase (PAP) (4)  Proteinelektrophorese (1) (7) Gesamtprotein Salicylat Natrium T <sub>3</sub> -frei (1) T <sub>3</sub> -total T <sub>3</sub> -fixation/T <sub>3</sub> -fixation T <sub>4</sub> -frei (1) T <sub>4</sub> -gesamt Theophyllin Thyroidea-stimulierendes Hormon (TSH)  Thyroxinbindendes Globulin (TBG) (1) (4) Tobramycin Transferrin (1) Triglycerides Harnstoff Harnstoff – Stickstoff Harnsäure Valproinsäure Vancomycin Vitamin B <sub>12</sub> (1) (4) Zink (1)	<b>ANALYTES</b> Acétaminophène Phosphatase acide, totale Alanine aminotransférase (ALAT/SGPT)  Albumine Phosphatase alcaline (ALP) Alpha-hydroxybutyrate déshydrogénase (αHBDH) (1) Alpha-1-antitrypsine (1) alpha-fetoprotéine (AFP) (1) Amylase Amylase, alpha Amylase, pancréatique Apolipoprotéine A-1 (1) Apolipoprotéine B (1) Aspartate aminotransférase (ASAT/SGOT) Bilirubine, directe Bilirubine, indirecte Bilirubine, totale Complément C3 (1) Complément C4 (1) (2) Calcium Calcium, ionisé (1) Carbamazépine Dioxyde de carbone (CO <sub>2</sub> ) antigène carcinoembryonnaire (ACE) (1)  Céruloplasmine (1) Chlorure Cholestérol, lipoprotéine de haute densité (HDL) (3) Cholestérol, lipoprotéine de basse densité (LDL) Cholestérol, total Cholinestérase (1) Cuivre (1) Cortisol Créatine kinase (CK) Créatinine Digoxine Gamma glutamyltransférase (GGT) Gentamicine Globuline (1) Glucose Glutamate déshydrogénase (GLDH) (1)  Haptoglobine (1) Sous-unité hCG-bêta (1) Immunoglobuline A (IgA) (1) Immunoglobuline G (IgG) (1) Immunoglobuline M (IgM) (1) Fer Capacité de fixation du fer, total (TEBC) (1) Capacité de fixation du fer, insaturé (UEBC) (1) Lactate (acide lactique) Lactate déshydrogénase (LDH) LAP - Arylamidase (1) Lipase Lithium Magnésium Osmolalité (1) Phénobarbital Phénytoïne Phosphore Potassium Antigène prostatique spécifique (PSA) (1)  Phosphatase acide prostatique (PAP) (4)  Electrophorèse de protéines (1) (7) Protéines totales Salicylate Sodium T <sub>3</sub> -libre (1) T <sub>3</sub> -total T <sub>3</sub> -fixation/T <sub>3</sub> -fixation T <sub>4</sub> -libre (1) T <sub>4</sub> -total Théophylline Hormone de stimulation de la thyroïde (TSH)  Globuline de transport de la thyroxine (TBG) (1) (4) Tobramycine Transferrine (1) Urée Azote uréique Acide urique Acide valproïque Vancomycine Vitamine B <sub>12</sub> (1) (4) Zinc (1)	<b>ANALITI</b> Acetaminofenolo Fosfatasi acida totale Alanina aminotransferasi (ALT/SGPT)  Albumina Fosfatasi alcalina (ALP) Deidrogenasi alfa-idrossibutirato (αHBDH) (1) Alfa-1-antitripsina (1) Alfa-fetoproteina (AFP) (1) Amilasi Alfa-amilasi Amilasi, alfa Amilasi, pancreatica Apolipoproteina A-1 (1) Apolipoproteina B (1) Aspartato aminotransferasi (AST/SGOT) Bilirubina, diretta Bilirubina, indiretta Bilirubina, totale Complemento C3 (1) Complemento C4 (1) (2) Calcio Calcio ionizzato (1) Carbamacepina Biossido di carbonio (CO <sub>2</sub> ) Antigene carcinoembrionico (CEA) (1)  Ceruloplasmina (1) Cloruro Colesterolo, lipoproteina ad alta densità (HDL) (3) Colesterolo, lipoproteina a bassa densità (LDL) Colesterolo totale Colinesterasi (1) Rame (1) Cortisolo Creatinichinasi (CK) Creatinina Digossina Gamma Glutamilttransferasi (GGT) Gentamicina Globulina (1) Glucosio Glutamato Deshidrogenasi (GLDH) (1)  Aptoglobina (1) Subunità hCG-Beta (1) Immunoglobulina A (IgA) (1) Immunoglobulina G (IgG) (1) Immunoglobulina M (IgM) (1) Ferro Capacità totale del ferro legante (TIBC) (1) Capacità del ferro legante insaturo (UIBC) (1) Lattato (Acido lattico) Lattatodeidrogenasi (LDH) LAP - Arilamidasi (1) Lipasi Litio Magnesio Osmolalità (1) Fenobarbital Fenitoina Fosforo Potassio Antigene prostatico specifico (PSA) (1)  Fosfatasi dell'acido prostatico (PAP) (4)  Elettroforesi proteica (1) (7) Proteina totale Salicilato Sodio T <sub>3</sub> libero (1) T <sub>3</sub> totale Captazione del T <sub>3</sub> /Captazione del T T <sub>4</sub> libero (1) T <sub>4</sub> totale Teofillina Ormone stimolante la tiroide (TSH)  Globulina legante la tiroxina (TBG) (1) (4) Tobramicina Transferrina (1) Trigliceridi Urea Urea ureico Acido urico Acido valproico Vancomicina Vitamina B <sub>12</sub> (1) (4) Zinco (1)	<b>ANALITOS</b> Acetaminofeno Fosfatasa ácida total Alanina aminotransferasa (ALT/SGPT)  Albúmina Fosfatasa alcalina (ALP) Alfa hidroxibutirato desidrogenase (αHBDH) (1) Alfa-1-antitripsina (1) Alfa-fetoproteína (AFP) (1) Amilasa Alfa-amilasa Amilasa, alfa Amilasa, pancreática Apolipoproteína A-1 (1) Apolipoproteína B (1) Aspartato aminotransferasa (AST/SGOT) Bilirubina, directa Bilirubina, indirecta Bilirubina, Total Complemento C3 (1) Complemento C4 (1) (2) Cálcio Cálcio, Ionizado (1) Carbamacepina Dióxido de carbono (CO <sub>2</sub> ) Antígeno carcinoembrionario (CEA) (1)  Ceruloplasmina (1) Cloruro Coolestero, lipoproteína de alta densidad (HDL) (3) Coolestero, lipoproteína de baja densidad (LDL) Coolestero, total Colinesterasa (1) Cobre (1) Cortisol Creatina quinasa (CK) Creatinina Digoxina Gamma Glutamilttransferasa (GGT) Gentamicina Globulina (1) Glucosa Glutamato Deshidroxigenasa (GLDH) (1)  Haptoglobina (1) Subunidad hCG-Beta (1) Imunoglobulina A (IgA) (1) Imunoglobulina G (IgG) (1) Imunoglobulina M (IgM) (1) Hierro Capacidad total de fijación del hierro (TIBC) (1) Capacidad insaturada de fijación de hierro (UIBC) (1) Lactato (ácido láctico) Lactato Deshidroxigenasa (LDH) LAP - Arilamidasa (1) Lipasa Litio Magnésio Osmolalidad (1) Fenobarbital Fenitoína Fósforo Potasio Antígeno prostático específico (PSA) (1)  Fosfatasa ácida prostática (PAP) (4)  Electroforesis de las proteínas (1) (7) Total Proteinás Salicilato Sodio T <sub>3</sub> libre (1) T <sub>3</sub> (Total) T <sub>3</sub> (Captación)/T (Captación) T <sub>4</sub> (Libre) (1) T <sub>4</sub> (Total) Teofilina Hormona estimulante del tiroides (TSH)  Globulina fijadora de tiroxina (TBG) (1) (4) Tobramicina Transferrina (1) Triglicéridos Urea Urea nitrogenada Ácido úrico Ácido valproico Vancomicina Vitamina B <sub>12</sub> (1) (4) Zinc (1)	<b>ANALITOS</b> Acetaminofeno Fosfatasa ácida, Total Aminotransferase de alanina (ALT/SGPT)  Albumina Fosfatase alcalina (ALP) Alfa hidroxibutirato desidrogenase (αHBDH) (1) Alfa-1-antitripsina (1) Alfa-fetoproteína (AFP) (1) Amilasa Amilase, alfa Amilase, Pancreática Apolipoproteína A-1 (1) Apolipoproteína B (1) Aspartato aminotransferase (AST/SGOT) Bilirubina, Directa Bilirubina, Indirecta Bilirubina, Total Complemento C3 (1) Complemento C4 (1) (2) Cálcio Cálcio, Ionizado (1) Carbamazepin Dióxido de carbono (CO <sub>2</sub> ) Carcinoembrional antígeno (CEA) (1)  Ceruloplasmina (1) Clorido Coolestero, lipoproteína de alta densidad (HDL) (3) Coolestero, lipoproteína de baixa densidad (LDL) Coolestero, Total Colinesterase (1) Cobre (1) Cortisol Creatina quinase (CK) Creatinina Digoxina Gama glutamilttransferase (GGT) Gentamicina Globulina (1) Glucose Glutamato desidrogenase (GLDH) (1)  Haptoglobina (1) hCG-beta-subenhet (1) Immunoglobulin A (IgA) (1) Immunoglobulin G (IgG) (1) Immunoglobulin M (IgM) (1) Järn Järmbindande kapacitet, total (TIBC) (1)  Järmbindande kapacitet, omättad (UIBC) (1) Laktat (mjölksyra) Laktatdehidrogenasa (LDH) LAP - Arylamidasa (1) Lipasa Litium Magnésium Osmolalitet (1) Fenobarbital Fenytoin Fosfor Kalium prostataspecifikt antigen (PSA) (1)  Fosfatase ácida prostática (PAP) (4)  Electroforese de proteínas (1) (7) Proteína, Total Salicylat Sódio T <sub>3</sub> livre (1) T <sub>3</sub> total Absorção de T <sub>3</sub> /Absorção de T T <sub>4</sub> livre (1) T <sub>4</sub> total Teofilina Hormona tireotrópica (TSH)  Globulina de ligação à tiroxina (TBG) (1) (4) Tobramicina Transferrina (1) Triglicéridos Ureia Nitrogénio de ureia Ácido úrico Ácido valproico Vancomicina Vitamina B <sub>12</sub> (1) (4) Zinco (1)	<b>ANALYTER</b> Acetaminofen Surť fosfatase, totalt Alaninaminotransferas (ALAT/SGPT)  Albumin Alkaliskt fosfatase (ALP) Alfahydroxybutyratdehydrogenas (αHBDH) (1) alfafetoprotein (AFP) (1) Amylas Amylas, alfa Amylas, pankreas Apolipoprotein A-1 (1) Apolipoprotein B (1) Aspartataminotransferas (ASAT/SGOT) Bilirubin, direkt Bilirubin, indirekt Bilirubin, Total C3 Komplement (1) C4 Komplement (1) (2) Kalcium Kalcium, joniserat (1) Carbamazepin Dioxid av kolbon (CO <sub>2</sub> ) Carcinoembryonal antigen (CEA) (1)  Ceruloplasmin (1) Klorid Kolesterol, High Density Lipoprotein (HDL) (3) Kolesterol, Low Density Lipoprotein (LDL) Kolesterol, totalt Kolinesteras (1) Koppar (1) Kortisol Kreatinkinasa (CK) Kreatinin Digoxin Gammaglutamyltransferasa (GGT) Gentamicin Globulin (1) Glukose Glutamatdehydrogenas (GLDH) (1)  Haptoglobin (1) hCG-beta-subenhet (1) Immunoglobulin A (IgA) (1) Immunoglobulin G (IgG) (1) Immunoglobulin M (IgM) (1) Järn Järmbindande kapacitet, total (TIBC) (1)  Järmbindande kapacitet, omättad (UIBC) (1) Laktat (mjölksyra) Laktatdehydrogenasa (LDH) LAP - Arylamidasa (1) Lipasa Litium Magnesium Osmolalitet (1) Fenobarbital Phenytoin Fosfor Kalium prostataspecifikt antigen (PSA) (1)  Prostatiska sura fosfataser (PAP) (4)  Proteinelektrofores (1) (7) Protein, totalt Salicylat Natrium T <sub>3</sub> -fritt (1) T <sub>3</sub> -totalt T <sub>3</sub> -upptag/T-upptag T <sub>4</sub> -fritt (1) T <sub>4</sub> -totalt Teofyllin Thyroideastimulerande hormon (TSH)  Thyroxinbindande globulin (TBG) (1) (4) Tobramycin Transferrin (1) Triglycerider Urea Ureakväve Urinnsyra Valproinsyra Vancomycin Vitamin B <sub>12</sub> (1) (4) Zink (1)	<b>ANALYTTER</b> Acetaminofen Surť fosfatase, total Alaninaminotransferase (ALT/SGPT)  Albumin Alkalisk phosphatase (ALP) Alfahydroxybutyratdehydrogenae (αHBDH) (1) alpha-fetoprotein (AFP) (1) Amylase Amylase, Alfa Amylase, pankreatisk Apolipoprotein A-1 (1) Apolipoprotein B (1) Aspartataminotransferase (AST/SGOT) Bilirubin, direkte Bilirubin, indirekte Bilirubin, total C3 komplement (1) C4 komplement (1) (2) Calcium Calcium, ioniseret (1) Carbamazepin Carbondioxid (CO <sub>2</sub> ) karcinoembryonal antigen (CEA) (1)  Ceruloplasmin (1) Klorid Cholesterol, lipoprotein med høj densitet (HDL) (3) Cholesterol, lipoprotein med lav densitet (LDL) Cholesterol, total Cholinesterase (1) Kobber (1) Cortisol Creatinkinase (CK) Creatinin Digoxin Gammaglutamyltransferase (GGT) Gentamicin Globulin (1) Glucose Glutamatdehydrogenase (GLDH) (1)  Haptoglobin (1) hCG-beta-subunit (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 (1) Phenobarbital Phenytoin Phosphor Kalium prostataspecifikt antigen (PSA) (1)  Surť fosfatase fra prostata (PAP) (4)  Protein elektrofores (1) (7) Protein, total Salicylat Natrium T <sub>3</sub> fri (1) T <sub>3</sub> total T <sub>3</sub> absorption/T absorption T <sub>4</sub> fri (1) T <sub>4</sub> total Theophyllin Thyroideastimulerende hormon (TSH)  Thyroxinbindende globulin (TBG) (1) (4) Tobramycin Transferrin (1) Triglycerider Urea Ureanitrogen Urinnsyre Valproinsyre Vancomycin Vitamin B <sub>12</sub> (1) (4) Zink (1)
<b>TERMS</b> Mean Range Units	<b>BEGRIFFE</b> Mittelwert Bereich Einheiten	<b>TERMES</b> Moyenne Plage de valeurs Unités	<b>TERMINI</b> Media Intervallo Unità	<b>TÉRMINOS</b> Média Rango Unidades	<b>TERMOS</b> Médela Limites Unidades	<b>TERMER</b> Medelvärde Område Enheter	<b>ORDLISTE</b> Gemensnit Område Enheder

METHOD										
Methode // Méthode // Metodo // Método // Método // Metod // Metode										
	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
ACETAMINOPHEN										
Syva EMIT 2000	µg/mL	12.1	9.68 – 14.5	80.2	64.2 – 96.2	µmol/L	80.0	64.0 – 96.0	530	424 – 636
ACID PHOSPHATASE, TOTAL										
Colorimetric Test Substrate Naphthyl. Pentandiol (5) (6)	U/L	26.4	21.1 – 31.6	44.6	35.7 – 53.6	µmol/L/sec	0.440	0.352 – 0.529	0.745	0.596 – 0.894
Teco Diagnostics TC-Matrix (Non-Prostatic) (Kinetic) (5)	U/L	6.60	4.91 – 8.19	8.80	6.60 – 11.0	µmol/L/sec	0.110	0.082 – 0.137	0.147	0.110 – 0.184
Teco Diagnostics TC-Matrix (Total) (Kinetic) (5)	U/L	21.5	16.1 – 26.8	33.0	24.8 – 41.3	µmol/L/sec	0.359	0.269 – 0.448	0.551	0.414 – 0.690
ALANINE AMINOTRANSFERASE (ALT/SGPT)										
Catachem Inc. (5)	U/L	31.4	25.1 – 37.7	70.6	56.5 – 84.7	µmol/L/sec	0.524	0.420 – 0.629	1.18	0.943 – 1.41
IFCC 2002 (UV with P5P) (5) (6)	U/L	36.6	29.3 – 43.9	107	85.5 – 128	µmol/L/sec	0.611	0.489 – 0.733	1.78	1.43 – 2.14
IFCC 2002 (UV without P5P) (5) (6)	U/L	35.8	28.7 – 43.0	102	81.3 – 122	µmol/L/sec	0.598	0.479 – 0.718	1.70	1.36 – 2.04
Pointe Scientific (Modified IFCC, Kinetic) (5)	U/L	35.0	28.0 – 42.0	114	88.0 – 140	µmol/L/sec	0.585	0.468 – 0.701	1.90	1.47 – 2.34
Sekisui (Genzyme) Diagnostics (UV without P5P) (5)	U/L	50.0	40.0 – 60.0	144	115 – 173	µmol/L/sec	0.835	0.668 – 1.00	2.40	1.92 – 2.89
Synermed IR500-II (IFCC Non-Activated) (5)	U/L	36.7	29.4 – 44.0	102	81.7 – 122	µmol/L/sec	0.613	0.491 – 0.735	1.70	1.36 – 2.04
Teco Diagnostics TC-Matrix (Optimized Tris Liquid) (5)	U/L	35.3	26.5 – 44.1	97.4	73.1 – 122	µmol/L/sec	0.590	0.442 – 0.736	1.63	1.22 – 2.03
Teco Diagnostics TC-Matrix (Optimized Tris Powder) (5)	U/L	29.8	22.4 – 37.3	97.7	73.3 – 122	µmol/L/sec	0.498	0.373 – 0.622	1.63	1.22 – 2.04
ALBUMIN										
Bromcresol green (6)	g/dL	4.17	3.34 – 5.00	2.81	2.25 – 3.38	g/L	41.7	33.4 – 50.0	28.1	22.5 – 33.8
Catechem Inc. (Bromcresol green)	g/dL	4.15	3.32 – 4.98	2.91	2.33 – 3.49	g/L	41.5	33.2 – 49.8	29.1	23.3 – 34.9
Pointe Scientific (Bromcresol green, Endpoint)	g/dL	4.30	3.90 – 4.70	3.00	2.40 – 3.60	g/L	43.0	39.0 – 47.0	30.0	24.0 – 36.0
Sekisui (Genzyme) Diagnostics (Bromcresol green)	g/dL	4.40	4.00 – 4.80	3.10	2.80 – 3.40	g/L	44.0	40.0 – 48.0	31.0	28.0 – 34.0
Synermed IR500-II (Bromcresol green)	g/dL	3.92	3.14 – 4.70	2.61	2.09 – 3.13	g/L	39.2	31.4 – 47.0	26.1	20.9 – 31.3
Teco Diagnostics TC-Matrix (Bromcresol green)	g/dL	3.90	2.93 – 4.89	2.60	2.00 – 3.30	g/L	39.0	29.3 – 48.9	26.0	20.0 – 33.0
ALKALINE PHOSPHATASE (ALP)										
Catachem Inc. (5)	U/L	108	86.6 – 130	514	411 – 617	µmol/L/sec	1.81	1.45 – 2.17	8.58	6.87 – 10.3
PNPP, AMP Buffer (5) (6)	U/L	112	89.6 – 134	585	468 – 702	µmol/L/sec	1.87	1.50 – 2.24	9.77	7.81 – 11.7
Pointe Scientific (p-NPP, Kinetic) (5)	U/L	122	94.0 – 151	589	451 – 727	µmol/L/sec	2.04	1.57 – 2.52	9.84	7.53 – 12.1
Sekisui (Genzyme) Diagnostics (PNPP, AMP Buffer) (5)	U/L	143	114 – 172	699	559 – 839	µmol/L/sec	2.39	1.90 – 2.87	11.7	9.34 – 14.0
Synermed IR500-II (AMP) (5)	U/L	108	86.5 – 130	555	444 – 665	µmol/L/sec	1.80	1.44 – 2.16	9.27	7.41 – 11.1
Teco Diagnostics TC-Matrix (Modified Bowers-McComb Liquid) (5)	U/L	117	87.7 – 146	615	462 – 768	µmol/L/sec	1.95	1.46 – 2.44	10.3	7.71 – 12.8
Teco Diagnostics TC-Matrix (Modified Bowers-McComb Powder) (5)	U/L	114	85.5 – 143	547	410 – 684	µmol/L/sec	1.91	1.43 – 2.38	9.13	6.85 – 11.4
ALPHA HYDROXYBUTYRATE DEHYDROGENASE (αHBDH) (1)										
Standard Method Option (5) (6)	U/L	140	112 – 168	387	310 – 465	µmol/L/sec	2.34	1.87 – 2.81	6.47	5.17 – 7.76
Teco Diagnostics TC-Matrix (Powder) (5)	U/L	110	82.8 – 138	299	224 – 374	µmol/L/sec	1.84	1.38 – 2.30	5.00	3.75 – 6.25
AMYLASE										
Catachem Inc. (5)	U/L	\$		\$		µmol/L/sec	\$		\$	
EPS-G7 (5) (6)	U/L	87.5	70.0 – 105	809	647 – 970	µmol/L/sec	1.46	1.17 – 1.75	13.5	10.8 – 16.2
Pointe Scientific (CNP63, Kinetic) (5)	U/L	107	95.0 – 119	1062	882 – 1242	µmol/L/sec	1.79	1.59 – 1.99	17.7	14.7 – 20.7
Sekisui (Genzyme) Diagnostics (CNP63) (5)	U/L	83.0	66.0 – 100	1017	864 – 1170	µmol/L/sec	1.39	1.10 – 1.67	17.0	14.4 – 19.5
Synermed IR500-II (CNP63) (5)	U/L	89.2	71.4 – 107	963	771 – 1155	µmol/L/sec	1.49	1.19 – 1.79	16.1	12.9 – 19.3
Teco Diagnostics TC-Matrix (Kinetic Liquid) (5)	U/L	96.1	72.1 – 120	893	670 – 1117	µmol/L/sec	1.60	1.20 – 2.01	14.9	11.2 – 18.7
AMYLASE, PANCREATIC										
EPS-G7 Liquid (5) (6)	U/L	55.6	44.4 – 66.7	760	608 – 912	µmol/L/sec	0.928	0.742 – 1.11	12.7	10.2 – 15.2
ASPARTATE AMINOTRANSFERASE (AST/SGOT)										
Catachem Inc. (5)	U/L	32.9	26.3 – 39.4	156	125 – 187	µmol/L/sec	0.550	0.439 – 0.658	2.61	2.09 – 3.13
IFCC 2002 (UV with P5P) (5) (6)	U/L	38.9	31.2 – 46.7	206	165 – 247	µmol/L/sec	0.650	0.520 – 0.781	3.44	2.75 – 4.12
IFCC 2002 (UV without P5P) (5) (6)	U/L	37.6	30.0 – 45.1	186	149 – 223	µmol/L/sec	0.627	0.502 – 0.753	3.11	2.49 – 3.73
Pointe Scientific (Modified IFCC, Kinetic) (5)	U/L	37.0	28.0 – 45.0	211	164 – 259	µmol/L/sec	0.618	0.468 – 0.752	3.52	2.74 – 4.33
Sekisui (Genzyme) Diagnostics (UV without P5P) (5)	U/L	46.0	37.0 – 55.0	225	180 – 270	µmol/L/sec	0.768	0.618 – 0.919	3.76	3.01 – 4.51
Synermed IR500-II (IFCC Non-Activated) (5)	U/L	36.5	29.2 – 43.7	192	154 – 231	µmol/L/sec	0.610	0.488 – 0.730	3.21	2.57 – 3.86
Teco Diagnostics TC-Matrix (Optimized Tris Liquid) (5)	U/L	39.9	30.0 – 49.9	131	98.1 – 163	µmol/L/sec	0.666	0.500 – 0.834	2.18	1.64 – 2.73
Teco Diagnostics TC-Matrix (Optimized Tris Powder) (5)	U/L	37.4	28.0 – 46.7	200	150 – 250	µmol/L/sec	0.625	0.468 – 0.780	3.34	2.51 – 4.18
BILIRUBIN, DIRECT										
Advanced Instruments BR2 Bilirubin Stat-Analyzer (Evelyn Malloy)	mg/dL	0.200	0.000 – 0.400	0.900	0.700 – 1.10	µmol/L	3.42	0.000 – 6.84	15.4	12.0 – 18.8
Catachem Inc.	mg/dL	0.400	0.320 – 0.480	1.47	1.17 – 1.76	µmol/L	6.84	5.47 – 8.21	25.1	20.0 – 30.1
Diazotization / DPD / Jendrassik Grof (6)	mg/dL	0.329	0.263 – 0.395	1.28	1.02 – 1.53	µmol/L	5.63	4.50 – 6.75	21.8	17.5 – 26.2
Pointe Scientific (Diao, Endpoint)	mg/dL	0.400	0.200 – 0.600	1.50	1.40 – 1.60	µmol/L	6.84	3.42 – 10.3	25.7	23.9 – 27.4
Sekisui (Genzyme) Diagnostics (Diao-Other)	mg/dL	0.480	0.140 – 0.820	1.59	0.640 – 2.54	µmol/L	8.21	2.39 – 14.0	27.2	10.9 – 43.4
Synermed IR500-II (Cholecyanin)	mg/dL	0.330	0.264 – 0.396	1.33	1.07 – 1.59	µmol/L	5.64	4.51 – 6.77	22.7	18.2 – 27.2
Teco Diagnostics TC-Matrix (Diazotization)	mg/dL	0.245	0.180 – 0.310	1.15	0.900 – 1.40	µmol/L	4.19	3.08 – 5.30	19.7	15.4 – 23.9
Wako L-Type (Roche Hitachi)	mg/dL	0.390	0.300 – 0.480	1.69	1.32 – 2.06	µmol/L	6.67	5.13 – 8.21	28.9	22.6 – 35.2
BILIRUBIN, TOTAL										
Advanced Instruments BR2 Bilirubin Stat-Analyzer (Photometric)	mg/dL	2.10	1.70 – 2.50	4.40	3.50 – 5.30	µmol/L	35.9	29.1 – 42.8	75.2	59.9 – 90.6
Catachem Inc.	mg/dL	1.62	1.30 – 1.94	4.30	3.44 – 5.16	µmol/L	27.7	22.2 – 33.2	73.5	58.8 – 88.2
DPD (6)	mg/dL	1.03	0.825 – 1.24	4.01	3.21 – 4.81	µmol/L	17.6	14.1 – 21.2	68.6	54.9 – 82.3
Jendrassik Grof (6)	mg/dL	1.22	0.975 – 1.46	4.37	3.49 – 5.24	µmol/L	20.8	16.7 – 25.0	74.7	59.8 – 89.6
Pointe Scientific (DMSO, Endpoint)	mg/dL	1.30	0.600 – 2.00	5.10	3.70 – 6.50	µmol/L	22.2	10.3 – 34.2	87.2	63.3 – 111
Sekisui (Genzyme) Diagnostics (Diao-Other)	mg/dL	1.10	0.700 – 1.50	4.20	3.40 – 5.00	µmol/L	18.8	12.0 – 25.7	71.8	58.1 – 85.5
Synermed IR500-II (Cholecyanin)	mg/dL	1.35	1.08 – 1.62	4.25	3.40 – 5.10	µmol/L	23.1	18.5 – 27.7	72.7	58.1 – 87.2
Teco Diagnostics TC-Matrix (Sulphanilic acid, DMSO)	mg/dL	1.70	1.24 – 2.07	4.90	3.70 – 6.10	µmol/L	29.1	21.2 – 35.4	83.8	63.3 – 104
Wako L-Type (Roche Hitachi)	mg/dL	1.10	0.860 – 1.34	4.11	3.21 – 5.01	µmol/L	18.8	14.7 – 22.9	70.3	54.9 – 85.7
CALCIUM										
Arsenazo III (6)	mg/dL	9.66	8.70 – 10.6	12.6	11.4 – 13.9	mmol/L	2.42	2.17 – 2.66	3.16	2.84 – 3.47
Catachem Inc.	mg/dL	8.92	8.03 – 9.81	11.7	10.5 – 12.9	mmol/L	2.23	2.01 – 2.45	2.92	2.63 – 3.21
Flame Photometry	mg/dL	\$		\$		mmol/L	\$		\$	
o-cresolphthalein complexone (6)	mg/dL	9.12	8.20 – 10.0	12.4	11.2 – 13.7	mmol/L	2.28	2.05 – 2.51	3.11	2.80 – 3.42
Pointe Scientific (o-cresolphthalein complexone, endpoint)	mg/dL	9.70	8.70 – 10.7	12.5	11.1 – 13.9	mmol/L	2.42	2.18 – 2.68	3.13	2.78 – 3.48
Sekisui (Genzyme) Diagnostics (Arsenazo III)	mg/dL	10.2	9.20 – 11.2	13.4	12.1 – 14.7	mmol/L	2.55	2.30 – 2.80	3.35	3.03 – 3.68
Sekisui (Genzyme) Diagnostics (Chlorophosphonazo III)	mg/dL	10.3	9.30 – 11.3	13.5	12.1 – 14.9	mmol/L	2.58	2.33 – 2.83	3.38	3.03 – 3.73
Synermed IR500-II (Arsenazo III)	mg/dL	9.40	7.53 – 11.3	12.1	9.69 – 14.5	mmol/L	2.35	1.88 – 2.82	3.03	2.42 – 3.63
Teco Diagnostics TC-Matrix (o-cresolphthalein complexone)	mg/dL	9.90	7.44 – 12.4	14.3	10.7 – 17.9	mmol/L	2.47	1.86 – 3.10	3.58	2.68 – 4.48

	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
CALCIUM, IONIZED (1)										
Siemens 800 Series (ISE Direct)	mg/dL	2.95	2.65 – 3.24	4.87	4.33 – 5.40	mmol/L	0.737	0.663 – 0.811	1.22	1.08 – 1.35
CARBAMAZEPINE										
Syva EMIT 2000	µg/mL	2.90	2.32 – 3.48	14.7	11.8 – 17.6	µmol/L	12.3	9.81 – 14.7	62.2	49.7 – 74.6
CARBON DIOXIDE (CO2)										
Pointe Scientific (PEPC/NADH)	mEq/L	51.0	41.0 – 61.0	29.0	21.0 – 37.0	mmol/L	51.0	41.0 – 61.0	29.0	21.0 – 37.0
Sekisui (Genzyme) Diagnostics (Enzymatic)	mEq/L	33.0	26.0 – 40.0	17.0	13.0 – 21.0	mmol/L	33.0	26.0 – 40.0	17.0	13.0 – 21.0
Synermed IR500-II (Enzymatic)	mEq/L	32.1	25.7 – 38.5	17.6	14.1 – 21.1	mmol/L	32.1	25.7 – 38.5	17.6	14.1 – 21.1
Teco Diagnostics TC-Matrix (Enzymatic, Modified Forrester Liquid)	mEq/L	23.3	17.5 – 29.1	12.4	9.30 – 15.5	mmol/L	23.3	17.5 – 29.1	12.4	9.30 – 15.5
Teco Diagnostics TC-Matrix (Enzymatic, Modified Forrester Powder)	mEq/L	26.9	20.2 – 33.7	13.5	10.1 – 16.9	mmol/L	26.9	20.2 – 33.7	13.5	10.1 – 16.9
CHLORIDE										
ISE Indirect (6)	mEq/L	102	91.6 – 112	83.8	75.4 – 92.1	mmol/L	102	91.6 – 112	83.8	75.4 – 92.1
Synermed IR500-II (ISE Direct)	mEq/L	99.1	79.4 – 119	82.0	65.7 – 98.0	mmol/L	99.1	79.4 – 119	82.0	65.7 – 98.0
Teco Diagnostics TC-Matrix (Mercuric Thiocyanate)	mEq/L	94.4	70.8 – 118	85.9	64.4 – 107	mmol/L	94.4	70.8 – 118	85.9	64.4 – 107
CHOLESTEROL, HIGH DENSITY LIPOPROTEIN (HDL) (3)										
Direct measure (6)	mg/dL	65.6	52.5 – 78.7	32.7	26.2 – 39.2	mmol/L	1.70	1.36 – 2.04	0.847	0.678 – 1.02
Pointe Scientific (aHDL)	mg/dL	66.0	48.0 – 84.0	40.0	30.0 – 51.0	mmol/L	1.71	1.24 – 2.18	1.04	0.777 – 1.32
Synermed IR500-II (Direct measure)	mg/dL	48.1	38.5 – 57.7	12.5	10.0 – 15.0	mmol/L	1.25	0.997 – 1.49	0.324	0.259 – 0.389
Teco Diagnostics TC-Matrix (Direct Homogeneous)	mg/dL	64.6	48.4 – 80.7	35.6	26.7 – 44.5	mmol/L	1.67	1.25 – 2.09	0.922	0.692 – 1.15
Wako L-Type (Roche Hitachi)	mg/dL	65.2	52.2 – 78.2	25.4	20.3 – 30.5	mmol/L	1.69	1.35 – 2.03	0.658	0.526 – 0.790
CHOLESTEROL, LOW DENSITY LIPOPROTEIN (LDL)										
Pointe Scientific (aLDL)	mg/dL	106	86.0 – 125	51.0	41.0 – 60.0	mmol/L	2.75	2.23 – 3.24	1.32	1.06 – 1.55
Synermed IR500-II (Direct measure)	mg/dL	126	101 – 151	56.3	45.1 – 68.0	mmol/L	3.26	2.61 – 3.91	1.46	1.17 – 1.76
Teco Diagnostics TC-Matrix (Direct)	mg/dL	99.7	74.7 – 125	45.6	34.2 – 56.9	mmol/L	2.58	1.94 – 3.23	1.18	0.886 – 1.47
Wako L-Type (Roche Hitachi)	mg/dL	129	103 – 155	66.0	52.8 – 79.2	mmol/L	3.34	2.67 – 4.01	1.71	1.37 – 2.05
CHOLESTEROL, TOTAL										
Catachem Inc.	mg/dL	234	187 – 281	98.9	79.1 – 119	mmol/L	6.07	4.85 – 7.28	2.56	2.05 – 3.07
CHOD-PAP (6)	mg/dL	242	194 – 291	99.9	79.9 – 120	mmol/L	6.28	5.02 – 7.53	2.59	2.07 – 3.11
Pointe Scientific (Endpoint)	mg/dL	266	228 – 303	119	102 – 136	mmol/L	6.89	5.91 – 7.85	3.08	2.64 – 3.52
Sekisui (Genzyme) Diagnostics (Enzymatic)	mg/dL	243	207 – 279	100	85.0 – 115	mmol/L	6.29	5.36 – 7.23	2.59	2.20 – 2.98
Synermed IR500-II (Enzymatic)	mg/dL	246	197 – 295	99.0	79.0 – 119	mmol/L	6.37	5.10 – 7.64	2.56	2.05 – 3.08
Teco Diagnostics TC-Matrix (Enzymatic Liquid)	mg/dL	232	174 – 290	99.3	74.5 – 124	mmol/L	6.02	4.51 – 7.52	2.57	1.93 – 3.21
Teco Diagnostics TC-Matrix (Enzymatic Powder)	mg/dL	224	168 – 279	98.0	73.5 – 123	mmol/L	5.79	4.34 – 7.23	2.54	1.90 – 3.17
CHOLINESTERASE (1)										
Butyrylthiocholine (5) (6)	U/L	4738	3790 – 5685	1937	1550 – 2324	µmol/L/sec	79.1	63.3 – 94.9	32.3	25.9 – 38.8
Teco Diagnostics TC-Matrix (PTC Kinetic) (5)	U/L	2360	1770 – 2950	823	617 – 1028	µmol/L/sec	39.4	29.6 – 49.3	13.7	10.3 – 17.2
COPPER (1)										
Atomic Absorption	µg/dL	99.3	79.5 – 119	64.8	<50.0 – 77.8	µmol/L	15.6	12.5 – 18.7	10.2	<7.85 – 12.2
CREATINE KINASE (CK)										
Catachem Inc. (5)	U/L	126	100 – 151	388	310 – 465	µmol/L/sec	2.10	1.68 – 2.52	6.47	5.18 – 7.77
IFCC 2002 (5) (6)	U/L	131	105 – 158	420	336 – 504	µmol/L/sec	2.19	1.76 – 2.63	7.01	5.61 – 8.41
Pointe Scientific (Kinetic) (5)	U/L	112	91.0 – 134	378	302 – 454	µmol/L/sec	1.87	1.52 – 2.24	6.31	5.04 – 7.58
Sekisui (Genzyme) Diagnostics (NAC activated) (5)	U/L	140	112 – 168	452	362 – 542	µmol/L/sec	2.34	1.87 – 2.81	7.55	6.05 – 9.05
Synermed IR500-II (Enzymatic UV) (5)	U/L	127	101 – 152	401	321 – 480	µmol/L/sec	2.12	1.69 – 2.54	6.70	5.36 – 8.02
Teco Diagnostics TC-Matrix (NAC, Kinetic Liquid) (5)	U/L	132	98.9 – 165	411	308 – 513	µmol/L/sec	2.20	1.65 – 2.75	6.86	5.14 – 8.57
CREATININE										
Alkaline picrate-kinetic (6)	mg/dL	2.32	1.86 – 2.79	5.84	4.68 – 7.01	µmol/L	205	164 – 247	517	413 – 620
Catachem Inc.	mg/dL	2.62	2.10 – 3.14	5.63	4.50 – 6.76	µmol/L	232	185 – 278	498	398 – 597
Enzymatic (6)	mg/dL	1.81	1.45 – 2.17	5.45	4.36 – 6.54	µmol/L	160	128 – 192	482	386 – 578
Pointe Scientific (Initial Rate)	mg/dL	2.70	2.30 – 3.10	6.20	4.80 – 7.60	µmol/L	239	203 – 274	548	424 – 672
Sekisui (Genzyme) Diagnostics (Enzymatic)	mg/dL	1.91	1.71 – 2.11	5.89	4.71 – 7.01	µmol/L	169	151 – 187	521	416 – 620
Sekisui (Genzyme) Diagnostics (Jaffe, Kinetic)	mg/dL	2.50	2.00 – 3.00	5.80	4.60 – 7.00	µmol/L	221	177 – 265	513	407 – 619
Synermed IR500-II (Alkaline picrate-kinetic)	mg/dL	2.29	1.83 – 2.75	6.03	4.83 – 7.23	µmol/L	202	162 – 243	533	427 – 639
Teco Diagnostics TC-Matrix (Jaffe Kinetic)	mg/dL	2.40	1.80 – 3.00	5.70	4.30 – 7.20	µmol/L	212	159 – 265	504	380 – 636
DIGOXIN										
Syva EMIT 2000	ng/mL	1.21	0.968 – 1.45	3.14	2.51 – 3.77	nmol/L	1.55	1.24 – 1.86	4.02	3.22 – 4.82
GAMMA GLUTAMYLTRANSFERASE (GGT)										
Catachem Inc. (5)	U/L	47.0	37.6 – 56.4	124	98.8 – 148	µmol/L/sec	0.785	0.628 – 0.942	2.06	1.65 – 2.48
IFCC 2002 (5) (6)	U/L	60.7	48.6 – 72.8	153	123 – 184	µmol/L/sec	1.01	0.811 – 1.22	2.56	2.05 – 3.08
Pointe Scientific (SZASZ, Kinetic) (5)	U/L	49.0	38.0 – 59.0	119	93.0 – 145	µmol/L/sec	0.818	0.635 – 0.985	1.99	1.55 – 2.42
Sekisui (Genzyme) Diagnostics (IFCC) (5)	U/L	59.0	47.0 – 71.0	146	117 – 175	µmol/L/sec	0.985	0.785 – 1.19	2.44	1.95 – 2.92
Synermed IR500-II (IFCC) (5)	U/L	61.4	49.2 – 73.6	160	128 – 192	µmol/L/sec	1.03	0.822 – 1.23	2.67	2.14 – 3.20
Teco Diagnostics TC-Matrix (Kinetic Liquid) (5)	U/L	50.8	38.1 – 63.4	118	88.4 – 147	µmol/L/sec	0.848	0.636 – 1.06	1.97	1.48 – 2.46
Teco Diagnostics TC-Matrix (Kinetic Powder) (5)	U/L	51.0	38.3 – 63.8	121	90.5 – 151	µmol/L/sec	0.852	0.639 – 1.06	2.01	1.51 – 2.52
GENTAMICIN										
Syva EMIT 2000	µg/mL	1.48	1.18 – 1.78	8.70	6.96 – 10.4	µmol/L	3.09	2.47 – 3.71	18.2	14.5 – 21.8
GLUCOSE										
Catachem Inc.	mg/dL	84.4	67.5 – 101	257	205 – 311	mmol/L	4.68	3.75 – 5.62	14.2	11.4 – 17.2
Hexokinase (6)	mg/dL	87.6	70.1 – 105	276	221 – 331	mmol/L	4.86	3.89 – 5.84	15.3	12.2 – 18.4
Pointe Scientific (GOD/POD, Endpoint)	mg/dL	91.0	76.0 – 106	274	230 – 318	mmol/L	5.05	4.22 – 5.88	15.2	12.8 – 17.6
Sekisui (Genzyme) Diagnostics (Hexokinase)	mg/dL	98.0	88.0 – 108	298	268 – 328	mmol/L	5.44	4.88 – 5.99	16.5	14.9 – 18.2
Synermed IR500-II (Glucose oxidase)	mg/dL	87.4	70.0 – 105	272	218 – 326	mmol/L	4.85	3.89 – 5.82	15.1	12.1 – 18.1
Teco Diagnostics TC-Matrix (Glucose Oxidase Liquid)	mg/dL	88.0	66.0 – 110	281	211 – 351	mmol/L	4.88	3.66 – 6.11	15.6	11.7 – 19.5
Teco Diagnostics TC-Matrix (Glucose Oxidase Powder)	mg/dL	90.7	68.0 – 113	309	232 – 386	mmol/L	5.03	3.77 – 6.29	17.1	12.8 – 21.4
Teco Diagnostics TC-Matrix (Hexokinase Liquid)	mg/dL	81.8	61.4 – 102	269	201 – 336	mmol/L	4.54	3.40 – 5.67	14.9	11.2 – 18.6
Teco Diagnostics TC-Matrix (Hexokinase Powder)	mg/dL	91.0	68.3 – 114	257	193 – 321	mmol/L	5.05	3.79 – 6.31	14.3	10.7 – 17.8
GLUTAMATE DEHYDROGENASE (GLDH) (1)										
Standard Method without Correction for the Non-Specific Creep Reaction (5) (6)	U/L	13.6	10.9 – 16.3	34.5	27.6 – 41.4	µmol/L/sec	0.227	0.182 – 0.273	0.577	0.461 – 0.692
HAPTOGLOBIN (1)										
Immunoturbidimetric (6)	mg/dL	114	91.2 – 137	74.7	59.8 – 89.6	g/L	1.14	0.912 – 1.37	0.747	0.598 – 0.896

	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
IMMUNOGLOBULIN A (IgA) (1)										
Immunoturbidimetric (6)	mg/dL	187	149 – 224	122	97.8 – 147	g/L	1.87	1.49 – 2.24	1.22	0.978 – 1.47
IMMUNOGLOBULIN G (IgG) (1)										
Immunoturbidimetric (6)	mg/dL	893	714 – 1071	595	476 – 714	g/L	8.93	7.14 – 10.7	5.95	4.76 – 7.14
IMMUNOGLOBULIN M (IgM) (1)										
Immunoturbidimetric (6)	mg/dL	89.5	71.6 – 107	57.4	45.9 – 68.9	g/L	0.895	0.716 – 1.07	0.574	0.459 – 0.689
IRON										
Catachem Inc.	µg/dL	250	200 – 301	69.3	55.4 – 83.2	µmol/L	44.8	35.9 – 53.8	12.4	9.92 – 14.9
Ferrozine (6)	µg/dL	240	192 – 288	66.3	53.0 – 79.5	µmol/L	43.0	34.4 – 51.5	11.9	9.49 – 14.2
Pointe Scientific (Ferrozine, Endpoint)	µg/dL	233	201 – 265	64.0	55.0 – 73.0	µmol/L	41.7	36.0 – 47.4	11.5	9.85 – 13.1
Sekisui (Genzyme) Diagnostics (Ferene)	µg/dL	215	183 – 247	62.0	53.0 – 71.0	µmol/L	38.5	32.8 – 44.2	11.1	9.49 – 12.7
Synermed IR500-II (Ferene)	µg/dL	250	200 – 300	76.6	61.0 – 92.0	µmol/L	44.8	35.8 – 53.7	13.7	10.9 – 16.5
Teco Diagnostics TC-Matrix (Ferrozine)	µg/dL	199	149 – 249	55.9	41.9 – 69.9	µmol/L	35.6	26.7 – 44.6	10.0	7.50 – 12.5
IRON-BINDING CAPACITY, TOTAL (TIBC) (1)										
Sekisui (Genzyme) Diagnostics (TIBC Calculated)	µg/dL	380	304 – 456	225	191 – 259	µmol/L	68.0	54.4 – 81.6	40.3	34.2 – 46.4
IRON-BINDING CAPACITY, UNSATURATED (UIBC) (1)										
Sekisui (Genzyme) Diagnostics (UIBC)	µg/dL	165	132 – 198	163	130 – 196	µmol/L	29.5	23.6 – 35.4	29.2	23.3 – 35.1
Synermed IR500-II (Ferene)	µg/dL	171	137 – 205	161	129 – 193	µmol/L	30.6	24.5 – 36.7	28.8	23.1 – 34.5
LACTATE (LACTIC ACID)										
Enzymatic (6)	mg/dL	39.6	31.7 – 47.6	10.4	8.33 – 12.5	mmol/L	4.40	3.52 – 5.28	1.16	0.925 – 1.39
LACTATE DEHYDROGENASE (LDH)										
Catachem Inc. (5)	U/L	137	110 – 165	281	225 – 337	µmol/L/sec	2.29	1.84 – 2.75	4.69	3.75 – 5.63
IFCC 2002 (5) (6)	U/L	172	137 – 206	368	294 – 441	µmol/L/sec	2.87	2.29 – 3.44	6.14	4.91 – 7.37
Pointe Scientific (Lactate to Pyruvate, Kinetic) (5)	U/L	170	140 – 200	373	306 – 439	µmol/L/sec	2.84	2.34 – 3.34	6.23	5.11 – 7.33
Sekisui (Genzyme) Diagnostics (Modified Wacker Tris, Kinetic) (5)	U/L	172	138 – 206	386	328 – 444	µmol/L/sec	2.87	2.30 – 3.44	6.45	5.48 – 7.41
Synermed IR500-II (Lactate to Pyruvate) (5)	U/L	178	143 – 213	356	285 – 427	µmol/L/sec	2.97	2.38 – 3.56	5.95	4.76 – 7.13
Teco Diagnostics TC-Matrix (Modified Wacker Tris, Kinetic) (Liquid) (5)	U/L	151	113 – 189	339	254 – 423	µmol/L/sec	2.53	1.89 – 3.16	5.65	4.24 – 7.07
Teco Diagnostics TC-Matrix (Modified Wacker Tris, Kinetic) (Powder) (5)	U/L	171	128 – 214	418	314 – 523	µmol/L/sec	2.85	2.14 – 3.57	6.98	5.24 – 8.73
LIPASE										
Colorimetric (5) (6)	U/L	178	143 – 214	301	241 – 361	µmol/L/sec	2.98	2.38 – 3.57	5.02	4.02 – 6.03
Enzymatic, colorimetric (5) (6)	U/L	42.5	34.0 – 51.0	75.2	60.2 – 90.2	µmol/L/sec	0.710	0.568 – 0.852	1.26	1.00 – 1.51
Sekisui (Genzyme) Diagnostics (1, 2 Diglycerole) (5)	U/L	41.0	31.0 – 51.0	93.0	74.0 – 112	µmol/L/sec	0.685	0.518 – 0.852	1.55	1.24 – 1.87
LITHIUM										
Flame Photometry	mEq/L	0.640	0.576 – 0.704	1.94	1.75 – 2.14	mmol/L	0.640	0.576 – 0.704	1.94	1.75 – 2.14
MAGNESIUM										
Atomic Absorption	mg/dL	1.88	1.60 – 2.16	4.09	3.47 – 4.70	mmol/L	0.772	0.656 – 0.888	1.68	1.43 – 1.93
Catachem Inc.	mg/dL	2.12	1.80 – 2.44	5.13	4.36 – 5.90	mmol/L	0.872	0.741 – 1.00	2.11	1.79 – 2.43
Pointe Scientific (Calmagite, Endpoint)	mg/dL	1.90	1.60 – 2.20	4.00	3.50 – 4.50	mmol/L	0.782	0.658 – 0.905	1.65	1.44 – 1.85
Sekisui (Genzyme) Diagnostics (Xylydyl blue)	mg/dL	1.90	1.70 – 2.10	4.20	3.80 – 4.60	mmol/L	0.782	0.699 – 0.864	1.73	1.56 – 1.89
Synermed IR500-II (Xylydyl blue) (Magon Sulfonate)	mg/dL	1.94	1.55 – 2.33	4.17	3.34 – 5.00	mmol/L	0.798	0.638 – 0.959	1.72	1.37 – 2.06
Teco Diagnostics TC-Matrix (Calmagite)	mg/dL	2.00	1.47 – 2.45	4.20	3.20 – 5.30	mmol/L	0.823	0.605 – 1.01	1.73	1.32 – 2.18
Xylydyl blue (6)	mg/dL	1.93	1.64 – 2.22	4.21	3.58 – 4.85	mmol/L	0.795	0.676 – 0.914	1.73	1.47 – 1.99
OSMOLALITY (1)										
Freezing Point Depression	mOsm/kg	579	463 – 695	482	386 – 579	mmol/kg	579	463 – 695	482	386 – 579
PHENOBARBITAL										
Syva EMIT 2000	µg/mL	12.6	10.1 – 15.1	46.4	37.1 – 55.7	µmol/L	54.3	43.4 – 65.2	200	160 – 240
PHENYTOIN										
Syva EMIT 2000	µg/mL	12.4	9.92 – 14.9	22.5	18.0 – 27.0	µmol/L	49.1	39.3 – 58.9	89.1	71.3 – 107
PHOSPHORUS										
Catachem Inc.	mg/dL	4.12	3.70 – 4.53	7.78	7.00 – 8.55	mmol/L	1.33	1.20 – 1.46	2.51	2.26 – 2.76
Phosphomolybdate-UV (6)	mg/dL	3.44	3.10 – 3.79	7.52	6.77 – 8.27	mmol/L	1.11	1.00 – 1.22	2.43	2.19 – 2.67
Pointe Scientific (Phosphomolybdate-UV, Endpoint)	mg/dL	3.70	2.90 – 4.50	7.40	6.10 – 8.70	mmol/L	1.20	0.937 – 1.45	2.39	1.97 – 2.81
Sekisui (Genzyme) Diagnostics (Phosphomolybdate reduction)	mg/dL	3.90	3.30 – 4.50	8.10	7.30 – 8.90	mmol/L	1.26	1.07 – 1.45	2.62	2.36 – 2.87
Synermed IR500-II (Phosphomolybdate reduction)	mg/dL	3.74	2.99 – 4.49	8.08	6.47 – 9.69	mmol/L	1.21	0.966 – 1.45	2.61	2.09 – 3.13
Teco Diagnostics TC-Matrix (Molybdenum UV)	mg/dL	3.60	2.70 – 4.50	7.70	5.70 – 9.60	mmol/L	1.16	0.872 – 1.45	2.49	1.84 – 3.10
POTASSIUM										
Flame Photometry	mEq/L	\$		\$		mmol/L	\$		\$	
Synermed IR500-II (ISE Direct)	mEq/L	3.93	3.15 – 4.71	6.04	4.84 – 7.24	mmol/L	3.93	3.15 – 4.71	6.04	4.84 – 7.24
Teco Diagnostics TC-Matrix (Turbidimetric)	mEq/L	3.60	3.40 – 3.80	5.90	5.50 – 6.20	mmol/L	3.60	3.40 – 3.80	5.90	5.50 – 6.20
PROTEIN, TOTAL										
Biuret, no serum blank, end point (6)	g/dL	6.67	5.34 – 8.01	4.36	3.49 – 5.24	g/L	66.7	53.4 – 80.1	43.6	34.9 – 52.4
Biuret, serum blank, end point (6)	g/dL	7.07	5.66 – 8.48	4.57	3.66 – 5.48	g/L	70.7	56.6 – 84.8	45.7	36.6 – 54.8
Catachem Inc.	g/dL	7.15	5.72 – 8.58	4.58	3.66 – 5.49	g/L	71.5	57.2 – 85.8	45.7	36.6 – 54.9
Pointe Scientific (Biuret, Endpoint)	g/dL	7.00	6.30 – 7.70	4.40	4.00 – 4.80	g/L	70.0	63.0 – 77.0	44.0	40.0 – 48.0
Sekisui (Genzyme) Diagnostics (Biuret)	g/dL	7.10	6.40 – 7.80	4.70	4.20 – 5.20	g/L	71.0	64.0 – 78.0	47.0	42.0 – 52.0
Synermed IR500-II (Biuret)	g/dL	6.61	5.29 – 7.93	4.13	3.31 – 4.95	g/L	66.1	52.9 – 79.3	41.3	33.1 – 49.5
Teco Diagnostics TC-Matrix (Biuret)	g/dL	7.30	5.49 – 9.14	4.90	3.60 – 6.10	g/L	73.0	54.9 – 91.4	49.0	36.0 – 61.0
SALICYLATE										
Syva EMIT 2000	mg/dL	7.00	5.60 – 8.40	20.0	16.0 – 24.0	mmol/L	0.507	0.405 – 0.608	1.45	1.16 – 1.74
SODIUM										
Flame Photometry	mEq/L	\$		\$		mmol/L	\$		\$	
Synermed IR500-II (ISE Direct)	mEq/L	143	115 – 171	123	98.0 – 148	mmol/L	143	115 – 171	123	98.0 – 148
THEOPHYLLINE										
Syva EMIT 2000	µg/mL	8.70	6.96 – 10.4	23.5	18.8 – 28.2	µmol/L	48.3	38.6 – 57.9	130	104 – 157
TOBRAMYCIN										
Syva EMIT 2000	µg/mL	6.60	5.28 – 7.92	1.40	1.12 – 1.68	µmol/L	14.1	11.3 – 16.9	3.00	2.40 – 3.60
TRANSFERRIN (1)										
Immunoturbidimetric (6)	mg/dL	261	209 – 314	174	139 – 208	g/L	2.61	2.09 – 3.14	1.74	1.39 – 2.08

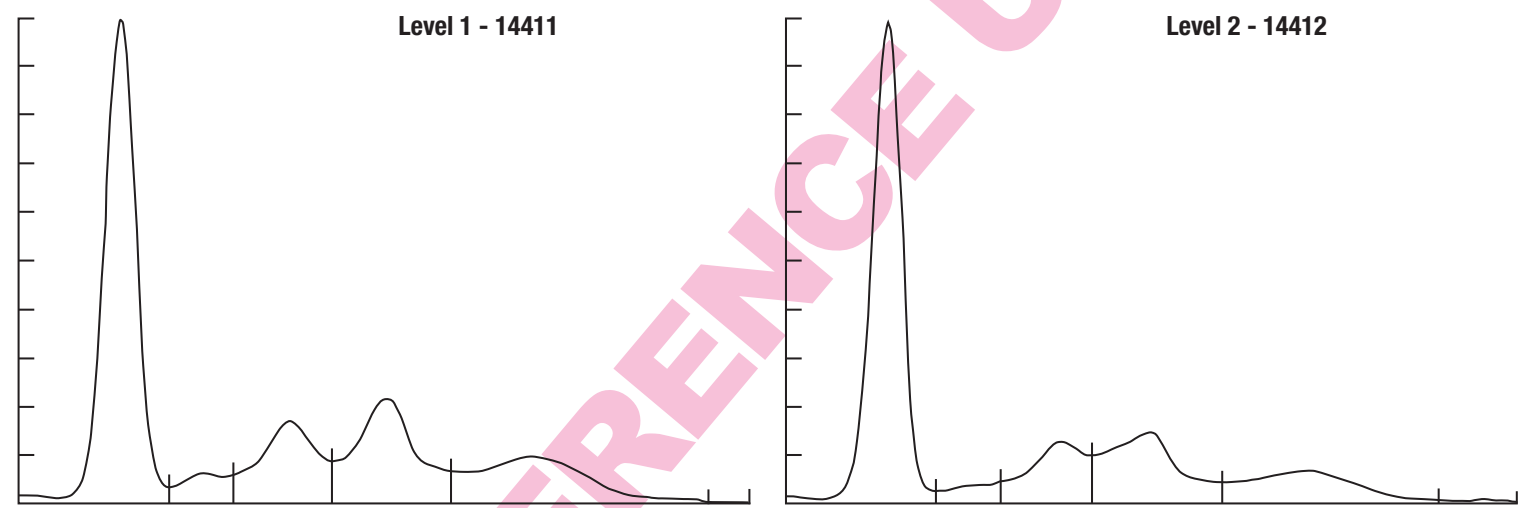
	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
TRIGLYCERIDES										
Catachem Inc.	mg/dL	210	168 – 252	96.3	77.0 – 116	mmol/L	2.37	1.90 – 2.85	1.09	0.870 – 1.31
Enzymatic / GPO (6)	mg/dL	197	158 – 237	93.3	74.6 – 112	mmol/L	2.23	1.78 – 2.67	1.05	0.843 – 1.26
Pointe Scientific (GPO, Endpoint)	mg/dL	190	156 – 224	78.0	63.0 – 93.0	mmol/L	2.15	1.76 – 2.53	0.881	0.712 – 1.05
Sekisui (Genzyme) Diagnostics (Enzymatic, Endpoint)	mg/dL	216	184 – 248	98.0	83.0 – 113	mmol/L	2.44	2.08 – 2.80	1.11	0.938 – 1.28
Synermed IR500-II (Enzymatic, GPO)	mg/dL	198	159 – 237	88.8	71.0 – 106	mmol/L	2.24	1.79 – 2.68	1.00	0.802 – 1.20
Teco Diagnostics TC-Matrix (Enzymatic GPO Liquid)	mg/dL	224	168 – 280	74.4	55.8 – 93.0	mmol/L	2.53	1.90 – 3.16	0.841	0.631 – 1.05
Teco Diagnostics TC-Matrix (Enzymatic GPO Powder)	mg/dL	242	181 – 302	108	81.2 – 135	mmol/L	2.73	2.05 – 3.41	1.22	0.918 – 1.53
UREA (8)										
Urease, GLDH (6)	mg/dL	36.2	28.9 – 43.4	97.9	78.7 – 118	mmol/L	6.03	4.82 – 7.23	16.3	13.1 – 19.6
Urease, UV (6)	mg/dL	34.6	27.7 – 41.5	96.1	76.9 – 115	mmol/L	5.76	4.61 – 6.91	16.0	12.8 – 19.2
UREA NITROGEN (8)										
Catachem Inc.	mg/dL	18.0	14.4 – 21.6	47.1	37.7 – 56.5	mmol/L	6.43	5.15 – 7.72	16.8	13.4 – 20.2
Pointe Scientific (GLDH, Initial Rate)	mg/dL	18.0	14.0 – 22.0	48.0	37.0 – 59.0	mmol/L	6.43	5.00 – 7.85	17.1	13.2 – 21.1
Sekisui (Genzyme) Diagnostics (Urease)	mg/dL	17.0	14.0 – 20.0	47.0	39.0 – 55.0	mmol/L	6.07	5.00 – 7.14	16.8	13.9 – 19.6
Synermed IR500-II (Urease, GLDH)	mg/dL	16.1	12.9 – 19.3	45.6	36.5 – 54.7	mmol/L	5.75	4.60 – 6.89	16.3	13.0 – 19.5
Teco Diagnostics TC-Matrix (Urease, GLDH Liquid)	mg/dL	16.8	12.6 – 21.0	46.0	34.5 – 57.5	mmol/L	6.00	4.51 – 7.51	16.4	12.3 – 20.5
Teco Diagnostics TC-Matrix (Urease, GLDH Powder)	mg/dL	16.5	12.4 – 20.6	44.1	33.1 – 55.1	mmol/L	5.89	4.42 – 7.36	15.7	11.8 – 19.7
Urease, GLDH (6)	mg/dL	16.9	13.5 – 20.3	45.7	36.6 – 54.9	mmol/L	6.03	4.82 – 7.23	16.3	13.1 – 19.6
Urease, UV (6)	mg/dL	16.1	12.9 – 19.3	44.8	35.9 – 53.8	mmol/L	5.76	4.61 – 6.91	16.0	12.8 – 19.2
URIC ACID										
Catachem Inc.	mg/dL	5.32	4.26 – 6.38	8.95	7.16 – 10.7	µmol/L	316	253 – 380	532	426 – 639
Pointe Scientific (Uricase, Endpoint)	mg/dL	\$		\$		µmol/L	\$		\$	
Sekisui (Genzyme) Diagnostics (Uricase)	mg/dL	5.30	4.80 – 5.80	9.70	8.70 – 10.7	µmol/L	315	286 – 345	577	517 – 636
Synermed IR500-II (Uricase)	mg/dL	4.64	3.72 – 5.56	10.9	8.70 – 13.0	µmol/L	276	221 – 331	648	517 – 776
Teco Diagnostics TC-Matrix (Uricase Liquid)	mg/dL	5.80	4.34 – 7.23	10.7	8.00 – 13.3	µmol/L	345	258 – 430	636	476 – 791
Teco Diagnostics TC-Matrix (Uricase Powder)	mg/dL	5.50	4.13 – 6.89	10.5	7.90 – 13.2	µmol/L	327	246 – 410	625	470 – 785
Uricase, colorimetric (6)	mg/dL	4.67	3.74 – 5.61	9.59	7.67 – 11.5	µmol/L	278	222 – 334	570	456 – 684
Uricase, UV (6)	mg/dL	4.76	3.81 – 5.72	9.67	7.73 – 11.6	µmol/L	283	227 – 340	575	460 – 690
VALPROIC ACID										
Syva EMIT 2000	µg/mL	39.4	31.5 – 47.3	144	115 – 173	µmol/L	273	218 – 328	1000	800 – 1200
VANCOMYCIN										
Syva EMIT 2000	µg/mL	6.20	4.96 – 7.44	31.5	25.2 – 37.8	µmol/L	4.28	3.42 – 5.13	21.7	17.4 – 26.1
ZINC (1)										
Atomic Absorption	µg/dL	\$		\$		µmol/L	\$		\$	

% OF TOTAL PROTEIN

% Gesamteiweiß // Pourcentage de protéines totales // % delle proteine totali  
% de proteínas totales // % de proteina total // % av totalprotein // % total protein

	Units	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range
AGAROSE GEL-ACID BLUE					
Albumin	%	53.0	47.7 – 58.3	56.5	50.8 – 62.1
Alpha-1-Globulin	%	3.39	2.47 – 4.30	2.38	1.67 – 3.09
Alpha-2-Globulin	%	13.2	10.0 – 16.4	12.0	9.11 – 14.9
Beta Globulin	%	18.3	13.9 – 22.6	18.1	13.7 – 22.4
Gamma Globulin	%	12.5	9.48 – 15.5	11.2	8.55 – 13.9
Globulin (1)	%	47.4	37.9 – 56.9	43.7	34.9 – 52.4
CELLULOSE ACETATE-PONCEAU-S					
Albumin	%	59.8	53.8 – 65.7	61.0	54.9 – 67.1
Alpha-1-Globulin	%	3.32	2.52 – 4.12	2.33	1.77 – 2.89
Alpha-2-Globulin	%	9.04	6.87 – 11.2	10.9	8.29 – 13.5
Beta Globulin	%	13.3	10.1 – 16.5	11.6	8.81 – 14.4
Gamma Globulin	%	14.6	11.1 – 18.1	14.2	10.8 – 17.6
Globulin (1)	%	40.3	32.2 – 48.3	39.0	31.2 – 46.8

AGAROSE GEL-ACID BLUE  
Agarosegel-Säureblau // Gel d'agarose-Acid Blue // Gel di agarosio-acid blue // Gel de agarosa-ácido azul // Gel de agarose ácida zul // Agarosgel-Acid Blue // Agarose gel-Acid Blue



FOR REFERENCE

INSTRUMENT										
Gerät // Appareil // Strumento // Instrumento // Instrument // Instrument										
	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
ABAXIS-PICCOLO										
Alanine Aminotransferase (ALT/SGPT) (5)	U/L	36.0	29.0 – 43.0	96.0	76.8 – 115	µmol/L/sec	0.601	0.484 – 0.718	1.60	1.28 – 1.92
Albumin (Bromcresol purple)	g/dL	4.40	3.52 – 5.28	3.00	2.40 – 3.60	g/L	44.0	35.2 – 52.8	30.0	24.0 – 36.0
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (5)	U/L	110	88.0 – 132	686	549 – 823	µmol/L/sec	1.84	1.47 – 2.20	11.5	9.17 – 13.7
Amylase (5)	U/L	74.0	59.2 – 88.8	794	635 – 953	µmol/L/sec	1.24	0.989 – 1.48	13.3	10.6 – 15.9
Aspartate Aminotransferase (AST/SGOT) (5)	U/L	39.0	31.2 – 46.8	185	148 – 222	µmol/L/sec	0.651	0.521 – 0.782	3.09	2.47 – 3.71
Bilirubin, Direct	mg/dL	0.500	0.300 – 0.700	1.70	1.40 – 2.00	µmol/L	8.55	5.13 – 12.0	29.1	23.9 – 34.2
Bilirubin, Total	mg/dL	1.30	1.04 – 1.56	4.30	3.44 – 5.16	µmol/L	22.2	17.8 – 26.7	73.5	58.8 – 88.2
Calcium	mg/dL	9.30	8.37 – 10.2	13.1	11.8 – 14.4	mmol/L	2.33	2.09 – 2.55	3.28	2.95 – 3.60
Carbon Dioxide (CO2)	mEq/L	33.0	26.4 – 39.6	20.0	16.0 – 24.0	mmol/L	33.0	26.4 – 39.6	20.0	16.0 – 24.0
Chloride	mEq/L	96.0	86.4 – 106	83.0	<80.0 – 91.3	mmol/L	96.0	86.4 – 106	83.0	<80.0 – 91.3
Cholesterol, High Density Lipoprotein (HDL) (3)	mg/dL	55.0	44.0 – 66.0	19.0	<15.0 – 24.0	mmol/L	1.42	1.14 – 1.71	0.492	<0.389 – 0.622
Cholesterol, Total	mg/dL	240	192 – 288	106	84.8 – 127	mmol/L	6.22	4.97 – 7.46	2.75	2.20 – 3.29
Creatine Kinase (CK) (5)	U/L	142	114 – 170	428	342 – 514	µmol/L/sec	2.37	1.90 – 2.84	7.15	5.71 – 8.58
Creatinine	mg/dL	1.80	1.44 – 2.16	5.40	4.32 – 6.48	µmol/L	159	127 – 191	477	382 – 573
Gamma Glutamyltransferase (GGT) (5)	U/L	55.0	44.0 – 66.0	140	112 – 168	µmol/L/sec	0.919	0.735 – 1.10	2.34	1.87 – 2.81
Glucose	mg/dL	90.0	72.0 – 108	276	221 – 331	mmol/L	5.00	4.00 – 5.99	15.3	12.3 – 18.4
Lactate Dehydrogenase (LDH) (5)	U/L	152	122 – 182	304	243 – 365	µmol/L/sec	2.54	2.04 – 3.04	5.08	4.06 – 6.10
Magnesium	mg/dL	1.80	1.53 – 2.07	4.20	3.57 – 4.83	mmol/L	0.741	0.629 – 0.852	1.73	1.47 – 1.99
Phosphorus	mg/dL	4.30	3.87 – 4.73	8.70	7.83 – 9.57	mmol/L	1.39	1.25 – 1.53	2.81	2.53 – 3.09
Potassium	mEq/L	3.80	3.30 – 4.30	5.90	5.20 – 6.40	mmol/L	3.80	3.30 – 4.30	5.90	5.20 – 6.40
Protein, Total	g/dL	7.00	5.60 – 8.40	4.60	3.68 – 5.52	g/L	70.0	56.0 – 84.0	46.0	36.8 – 55.2
Sodium	mEq/L	144	130 – 158	127	114 – 140	mmol/L	144	130 – 158	127	114 – 140
Triglycerides	mg/dL	207	166 – 248	97.0	77.6 – 116	mmol/L	2.34	1.88 – 2.80	1.10	0.877 – 1.31
Urea Nitrogen (8)	mg/dL	17.0	13.6 – 20.4	45.0	36.0 – 54.0	mmol/L	6.07	4.86 – 7.28	16.1	12.9 – 19.3
Uric Acid	mg/dL	4.30	3.44 – 5.16	9.70	7.76 – 11.6	µmol/L	256	205 – 307	577	462 – 690
ABBOTT ARCHITECT cSYSTEMS / AEROSET										
Acetaminophen	µg/mL	10.9	8.70 – 13.1	76.1	60.9 – 91.3	µmol/L	71.9	57.5 – 86.3	503	403 – 604
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (IFCC 2002) (5)	U/L	37.0	29.6 – 44.5	110	88.1 – 132	µmol/L/sec	0.619	0.495 – 0.742	1.84	1.47 – 2.21
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (5)	U/L	36.7	29.4 – 44.0	106	84.5 – 127	µmol/L/sec	0.613	0.490 – 0.735	1.76	1.41 – 2.12
Albumin (Bromcresol green)	g/dL	3.98	3.19 – 4.78	2.73	2.19 – 3.28	g/L	39.8	31.9 – 47.8	27.3	21.9 – 32.8
Albumin (Bromcresol purple)	g/dL	3.89	3.11 – 4.67	2.59	2.07 – 3.11	g/L	38.9	31.1 – 46.7	25.9	20.7 – 31.1
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (5)	U/L	112	89.7 – 134	593	474 – 711	µmol/L/sec	1.87	1.50 – 2.25	9.90	7.92 – 11.9
Amylase (CNP-triose/CNPG3) (5)	U/L	89.3	71.4 – 107	994	796 – 1193	µmol/L/sec	1.49	1.19 – 1.79	16.6	13.3 – 19.9
Amylase, Pancreatic (MULTIGENT-Sentinel) (5)	U/L	\$		\$		µmol/L/sec	\$		\$	
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (IFCC 2002) (5)	U/L	40.7	32.6 – 48.8	208	166 – 249	µmol/L/sec	0.679	0.544 – 0.815	3.47	2.77 – 4.16
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (5)	U/L	38.3	30.6 – 46.0	189	151 – 227	µmol/L/sec	0.640	0.512 – 0.768	3.16	2.53 – 3.79
Bilirubin, Direct (Diazotization) (Kit 8G63)	mg/dL	0.516	0.413 – 0.620	1.63	1.30 – 1.96	µmol/L	8.83	7.06 – 10.6	27.9	22.3 – 33.5
Bilirubin, Direct (Oxidation by Nitrite) (AEROSSET Only)	mg/dL	\$		\$		µmol/L	\$		\$	
Bilirubin, Total (Diazonium Ion) (Kit 6L45)	mg/dL	1.21	0.967 – 1.45	4.44	3.56 – 5.33	µmol/L	20.7	16.5 – 24.8	76.0	60.8 – 91.2
Bilirubin, Total (Jendrassik Grof) (Kit 8G62)	mg/dL	1.12	0.892 – 1.34	4.21	3.37 – 5.06	µmol/L	19.1	15.3 – 22.9	72.1	57.7 – 86.5
Bilirubin, Total (Oxidation by Nitrite) (AEROSSET Only)	mg/dL	\$		\$		µmol/L	\$		\$	
C3 Complement (Immunoturbidimetric) (1)	mg/dL	143	115 – 172	96.1	76.9 – 115	g/L	1.43	1.15 – 1.72	0.961	0.769 – 1.15
Calcium (Arsenazo III) (Kit 3L79)	mg/dL	9.79	8.81 – 10.8	12.7	11.4 – 14.0	mmol/L	2.45	2.20 – 2.69	3.17	2.86 – 3.49
Carbamazepine (EIA)	µg/mL	3.20	2.56 – 3.84	14.8	11.8 – 17.7	µmol/L	13.5	10.8 – 16.2	62.5	50.0 – 75.0
Carbon Dioxide (CO2) (Enzymatic)	mEq/L	33.4	26.7 – 40.1	17.2	13.8 – 20.6	mmol/L	33.4	26.7 – 40.1	17.2	13.8 – 20.6
Chloride (ISE Indirect)	mEq/L	103	92.3 – 113	85.2	76.7 – 93.7	mmol/L	103	92.3 – 113	85.2	76.7 – 93.7
Cholesterol, High Density Lipoprotein (HDL) (Ultra HDL) (3)	mg/dL	69.3	55.4 – 83.1	25.9	20.7 – 31.0	mmol/L	1.79	1.44 – 2.15	0.670	0.536 – 0.804
Cholesterol, Low Density Lipoprotein (LDL) (Direct)	mg/dL	97.8	78.3 – 117	46.3	37.0 – 55.5	mmol/L	2.53	2.03 – 3.04	1.20	0.959 – 1.44
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	250	200 – 300	101	80.6 – 121	mmol/L	6.48	5.19 – 7.78	2.61	2.09 – 3.13
Cholinesterase (Butyrylthiocholine (Trinder)) (MULTIGENT-Sentinel) (1) (5)	U/L	5650	4520 – 6780	2284	1827 – 2740	µmol/L/sec	94.4	75.5 – 113	38.1	30.5 – 45.8
Creatine Kinase (CK) (NAC activated) (5)	U/L	141	113 – 169	461	369 – 553	µmol/L/sec	2.36	1.89 – 2.83	7.70	6.16 – 9.24
Creatine Kinase (CK) (NAC activated) (IFCC 2002) (5)	U/L	135	108 – 162	431	345 – 518	µmol/L/sec	2.25	1.80 – 2.70	7.20	5.76 – 8.64
Creatinine (Alkaline picrate-kinetic rate blanked, IFCC-IDMS Standardized) (Kit 3L81)	mg/dL	2.88	2.31 – 3.46	6.63	5.30 – 7.96	µmol/L	255	204 – 306	586	469 – 703
Creatinine (Alkaline picrate-kinetic) (Kit 7D64)	mg/dL	\$		\$		µmol/L	\$		\$	
Creatinine (Enzymatic IFCC-IDMS Standardized) (MULTIGENT-Sentinel)	mg/dL	1.78	1.42 – 2.14	5.46	4.37 – 6.55	µmol/L	157	126 – 189	483	386 – 579
Digoxin (Immunoturbidimetric) (MULTIGENT)	ng/mL	1.27	1.02 – 1.53	3.11	2.49 – 3.74	nmol/L	1.63	1.30 – 1.96	3.98	3.19 – 4.78
Gamma Glutamyltransferase (GGT) (5)	U/L	63.8	51.1 – 76.6	163	130 – 196	µmol/L/sec	1.07	0.853 – 1.28	2.72	2.18 – 3.27
Gamma Glutamyltransferase (GGT) (IFCC 2002) (5)	U/L	61.2	49.0 – 73.5	156	125 – 187	µmol/L/sec	1.02	0.818 – 1.23	2.60	2.08 – 3.12
Gentamicin (Immunoturbidimetric) (MULTIGENT)	µg/mL	1.32	0.843 – 1.79	7.80	6.24 – 9.36	µmol/L	2.75	1.76 – 3.74	16.3	13.0 – 19.6
Glucose (Hexokinase)	mg/dL	88.3	70.6 – 106	287	230 – 345	mmol/L	4.90	3.92 – 5.88	15.9	12.7 – 19.1
Haptoglobin (Immunoturbidimetric) (1)	mg/dL	109	87.6 – 131	72.1	57.7 – 86.5	g/L	1.09	0.876 – 1.31	0.721	0.577 – 0.865
Immunoglobulin A (IgA) (Immunoturbidimetric) (1)	mg/dL	174	139 – 209	123	98.4 – 148	g/L	1.74	1.39 – 2.09	1.23	0.984 – 1.48
Immunoglobulin G (IgG) (Immunoturbidimetric) (1)	mg/dL	938	751 – 1126	588	471 – 706	g/L	9.38	7.51 – 11.3	5.88	4.71 – 7.06
Immunoglobulin M (IgM) (Immunoturbidimetric) (1)	mg/dL	90.6	72.5 – 109	60.8	48.6 – 72.9	g/L	0.906	0.725 – 1.09	0.608	0.486 – 0.729
Iron (Ferene)	µg/dL	232	186 – 278	61.8	49.4 – 74.1	µmol/L	41.5	33.2 – 49.8	11.1	8.84 – 13.3
Iron (Sentinel)	µg/dL	235	188 – 282	66.7	53.4 – 80.1	µmol/L	42.1	33.7 – 50.5	11.9	9.56 – 14.3
Iron-Binding Capacity, Total (TIBC) (Ferene) (1)	µg/dL	422	337 – 506	237	190 – 284	µmol/L	75.5	60.4 – 90.6	42.4	33.9 – 50.9
Iron-Binding Capacity, Unsaturated (UIBC) (Ferene) (1)	µg/dL	180	144 – 216	172	137 – 206	µmol/L	32.2	25.8 – 38.6	30.7	24.6 – 36.8
Lactate (Lactic Acid) (Lactate to Pyruvate)	mg/dL	38.3	30.7 – 46.0	10.0	8.00 – 12.0	mmol/L	4.26	3.40 – 5.11	1.11	0.888 – 1.33
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (IFCC 2002) (5)	U/L	202	162 – 242	372	298 – 447	µmol/L/sec	3.37	2.70 – 4.05	6.21	4.97 – 7.46
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (IFCC) (2P56) (5)	U/L	▲		▲		µmol/L/sec	▲		▲	
Lipase (Enzymatic with colipase) (5)	U/L	41.8	33.5 – 50.2	87.4	70.0 – 105	µmol/L/sec	0.698	0.559 – 0.838	1.46	1.17 – 1.75
Lithium (Colorimetric) (Sentinel)	mEq/L	0.680	0.544 – 0.816	1.96	1.57 – 2.35	mmol/L	0.680	0.544 – 0.816	1.96	1.57 – 2.35
Magnesium (Arsenazo I)	mg/dL	1.96	1.67 – 2.26	4.11	3.50 – 4.73	mmol/L	0.808	0.687 – 0.929	1.69	1.44 – 1.95
Phenobarbital (EIA)	µg/mL	13.6	10.9 – 16.4	48.9	39.1 – 58.7	µmol/L	58.8	47.0 – 70.6	211	169 – 253
Phenytoin (EIA)	µg/mL	11.0	8.83 – 13.2	23.0	18.4 – 27.7	µmol/L	43.7	35.0 – 52.4	91.3	73.0 – 110
Phosphorus (Phosphomolybdate-UV)	mg/dL	3.44	3.10 – 3.79	7.52	6.77 – 8.27	mmol/L	1.11	1.00 – 1.22	2.43	2.19 – 2.67
Potassium (ISE Indirect)	mEq/L	4.01	3.61 – 4.41	6.19	5.57 – 6.81	mmol/L	4.01	3.61 – 4.41	6.19	5.57 – 6.81
Protein, Total (Biuret, no serum blank, end point)	g/dL	6.78	5.42 – 8.14	4.33	3.46 – 5.20	g/L	67.8	54.2 – 81.4	43.3	34.6 – 52.0
Salicylate (Enzymatic) (MULTIGENT)	mg/dL	5.50	<5.00 – 6.60	16.5	13.2 – 19.8	mmol/L	0.398	<0.362 – 0.478	1.20	0.957 – 1.43
Sodium (ISE Indirect)	mEq/L									

	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
ABBOTT ARCHITECT cSYSTEMS / AEROSET (continued)										
Urea Nitrogen (Urease, UV) (8)	mg/dL	17.1	13.7 – 20.6	45.8	36.6 – 54.9	mmol/L	6.11	4.89 – 7.34	16.3	13.1 – 19.6
Uric Acid (Uricase, colorimetric)	mg/dL	5.08	4.06 – 6.09	9.95	7.96 – 11.9	μmol/L	302	242 – 362	592	474 – 710
Valproic Acid (Immunoturbidimetric)	μg/mL	35.1	28.1 – 42.2	132	105 – 158	μmol/L	244	195 – 292	912	730 – 1095
Vancomycin (Immunoturbidimetric)	μg/mL	6.64	5.31 – 7.97	36.1	28.9 – 43.3	μmol/L	4.58	3.66 – 5.50	24.9	19.9 – 29.9
ABBOTT AxSYM										
Acetaminophen (FPIA)	μg/mL	12.7	10.1 – 15.2	86.0	68.8 – 103	μmol/L	83.7	66.9 – 100	568	455 – 682
Alpha-Fetoprotein (AFP) (EIA) (1)	ng/mL	2.96	2.37 – 3.55	1.74	1.39 – 2.08	μg/L	2.96	2.37 – 3.55	1.74	1.39 – 2.08
Carbamazepine (FPIA)	μg/mL	2.98	2.38 – 3.57	14.4	11.5 – 17.2	μmol/L	12.6	10.1 – 15.1	60.8	48.6 – 72.9
Carcinoembryonic Antigen (CEA) (EIA) (1)	ng/mL	1.45	1.16 – 1.74	1.01	0.810 – 1.22	μg/L	1.45	1.16 – 1.74	1.01	0.810 – 1.22
Digoxin (EIA)	ng/mL	1.14	0.908 – 1.36	2.92	2.34 – 3.50	nmol/L	1.45	1.16 – 1.74	3.74	2.99 – 4.49
Digoxin (EIA) (Digoxin III)	ng/mL	1.28	1.02 – 1.53	3.06	2.45 – 3.67	nmol/L	1.63	1.31 – 1.96	3.92	3.14 – 4.70
Gentamicin (FPIA)	μg/mL	1.39	1.11 – 1.67	8.58	6.86 – 10.3	μmol/L	2.91	2.32 – 3.49	17.9	14.3 – 21.5
Phenobarbital (FPIA)	μg/mL	12.4	9.89 – 14.8	43.7	34.9 – 52.4	μmol/L	53.3	42.6 – 64.0	188	151 – 226
Phenytoin (FPIA)	μg/mL	10.7	8.52 – 12.8	22.0	17.6 – 26.4	μmol/L	42.2	33.8 – 50.6	87.3	69.8 – 105
Prostate Specific Antigen (EIA) (1)	ng/mL	4.67	3.73 – 5.60	7.51	6.01 – 9.01	μg/L	4.67	3.73 – 5.60	7.51	6.01 – 9.01
Salicylate (FPIA)	mg/dL	6.02	4.81 – 7.22	16.5	13.2 – 19.8	mmol/L	0.436	0.349 – 0.523	1.20	0.957 – 1.44
T3 Free (EIA) (1)	pg/mL	2.35	1.88 – 2.82	19.4	15.6 – 23.3	pmol/L	3.62	2.90 – 4.34	29.9	23.9 – 35.9
T3 Total (EIA)	ng/mL	0.864	0.691 – 1.04	3.69	2.95 – 4.43	nmol/L	1.33	1.06 – 1.60	5.68	4.55 – 6.82
T3 Uptake/T-Uptake (FPIA)	% Uptake	\$		\$		% Uptake	\$		\$	
T4 Free (EIA) (1)	ng/dL	0.783	0.627 – 0.940		4.66 – >6.00	pmol/L	10.1	8.08 – 12.1		60.1 – >77.4
T4 Total (FPIA)	μg/dL	7.12	5.70 – 8.55	22.6	18.1 – >24.0	nmol/L	91.9	73.5 – 110	292	234 – >310
Theophylline (FPIA)	μg/mL	\$		\$		μmol/L	\$		\$	
Thyroid Stimulating Hormone (TSH) (Ultrasensitive hTSH II)	μIU/mL	1.20	0.956 – 1.43	13.2	10.5 – 15.8	mIU/L	1.20	0.956 – 1.43	13.2	10.5 – 15.8
Tobramycin (FPIA)	μg/mL	6.63	5.30 – 7.95	1.45	1.16 – 1.74	μmol/L	14.2	11.3 – 17.0	3.09	2.48 – 3.71
Valproic Acid (FPIA)	μg/mL	35.5	28.4 – 42.6	137	109 – 164	μmol/L	246	197 – 295	946	757 – 1135
Vancomycin (FPIA)	μg/mL	6.60	5.28 – 7.92	35.2	28.2 – 42.3	μmol/L	4.56	3.64 – 5.47	24.3	19.4 – 29.2
ALFA WASSERMANN ACE										
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (5)	U/L	35.3	28.3 – 42.4	94.5	75.6 – 113	μmol/L/sec	0.590	0.472 – 0.708	1.58	1.26 – 1.89
Albumin (Bromcresol green)	g/dL	4.00	3.20 – 4.80	2.77	2.21 – 3.32	g/L	40.0	32.0 – 48.0	27.7	22.1 – 33.2
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (5)	U/L	110	88.1 – 132	582	465 – 698	μmol/L/sec	1.84	1.47 – 2.21	9.71	7.77 – 11.7
Amylase (CNP-triose/CNPG3) (5)	U/L	\$		\$		μmol/L/sec	\$		\$	
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (5)	U/L	39.8	31.9 – 47.8	184	147 – 221	μmol/L/sec	0.665	0.532 – 0.798	3.08	2.46 – 3.69
Bilirubin, Direct (Diazotization)	mg/dL	0.817	0.653 – 0.980	1.92	1.53 – 2.30	μmol/L	14.0	11.2 – 16.8	32.8	26.2 – 39.3
Bilirubin, Total (Sulphanilic acid, DMSO)	mg/dL	1.53	1.23 – 1.84	4.98	3.99 – 5.98	μmol/L	26.2	21.0 – 31.5	85.2	68.2 – 102
Calcium (Arsenazo III)	mg/dL	8.95	8.05 – 9.85	12.0	10.8 – 13.2	mmol/L	2.24	2.01 – 2.46	3.00	2.70 – 3.30
Chloride (ISE Direct)	mEq/L	\$		\$		mmol/L	\$		\$	
Cholesterol, High Density Lipoprotein (HDL) (Direct measure, polymer-polyanion) (3)	mg/dL	58.7	46.9 – 70.4	18.2	14.0 – 22.3	mmol/L	1.52	1.22 – 1.82	0.471	0.362 – 0.579
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	241	193 – 290	101	80.8 – 121	mmol/L	6.25	5.00 – 7.50	2.62	2.09 – 3.14
Creatine Kinase (CK) (NAC activated) (5)	U/L	\$		\$		μmol/L/sec	\$		\$	
Creatinine (Alkaline picrate-kinetic)	mg/dL	2.20	1.76 – 2.64	5.47	4.37 – 6.56	μmol/L	194	155 – 233	483	387 – 580
Glucose (Hexokinase)	mg/dL	90.3	72.3 – 108	277	221 – 332	mmol/L	5.01	4.01 – 6.02	15.3	12.3 – 18.4
Phosphorus (Phosphomolybdate-UV)	mg/dL	\$		\$		mmol/L	\$		\$	
Potassium (ISE Direct)	mEq/L	\$		\$		mmol/L	\$		\$	
Protein, Total (Biuret, no serum blank, end point)	g/dL	6.52	5.21 – 7.82	4.32	3.45 – 5.18	g/L	65.2	52.1 – 78.2	43.2	34.5 – 51.8
Sodium (ISE Direct)	mEq/L	\$		\$		mmol/L	\$		\$	
Triglycerides (Enzymatic, Endpoint)	mg/dL	197	157 – 236	91.8	73.5 – 110	mmol/L	2.22	1.78 – 2.66	1.04	0.830 – 1.25
Urea Nitrogen (Urease, UV) (8)	mg/dL	16.0	12.8 – 19.2	45.2	36.1 – 54.2	mmol/L	5.71	4.57 – 6.85	16.1	12.9 – 19.3
Uric Acid (Uricase, colorimetric)	mg/dL	\$		\$		μmol/L	\$		\$	
BECKMAN COULTER ACCESS SYSTEMS										
Cortisol (Chemiluminescence)	μg/dL	\$		\$		nmol/L	\$		\$	
hCG-Beta Subunit (Chemiluminescence) (1)	mIU/mL	18.1	14.5 – 21.7	2.70	2.16 – 3.24	IU/L	18.1	14.5 – 21.7	2.70	2.16 – 3.24
BECKMAN COULTER AU400 / 600 / 640 / 680 / 2700 / 5400										
Acetaminophen (Syva EMIT 2000)	μg/mL	12.1	<10.0 – 18.0	80.2	60.0 – 100	μmol/L	80.0	<66.1 – 119	530	397 – 661
Acid Phosphatase, Total (Sentinel) (5)	U/L	16.5	13.2 – 19.8	26.7	21.4 – 32.0	μmol/L/sec	0.275	0.220 – 0.330	0.446	0.357 – 0.535
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (IFCC 2002) (Europe/Asia) (5)	U/L	38.0	30.4 – 45.6	108	86.4 – 130	μmol/L/sec	0.634	0.507 – 0.761	1.80	1.44 – 2.16
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (5)	U/L	31.3	25.0 – 37.6	88.7	71.0 – 106	μmol/L/sec	0.523	0.418 – 0.627	1.48	1.19 – 1.78
Albumin (Bromcresol green)	g/dL	4.00	3.60 – 4.40	2.70	2.40 – 3.00	g/L	40.0	36.0 – 44.0	27.0	24.0 – 30.0
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (5)	U/L	111	77.7 – 144	583	408 – 757	μmol/L/sec	1.85	1.30 – 2.41	9.73	6.81 – 12.6
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (IFCC 2002) (Europe/Asia) (5)	U/L	128	102 – 153	685	548 – 821	μmol/L/sec	2.13	1.70 – 2.56	11.4	9.15 – 13.7
Amylase (G7 PNP, Blocked) (5)	U/L	65.4	45.8 – 85.0	760	532 – 987	μmol/L/sec	1.09	0.764 – 1.42	12.7	8.88 – 16.5
Amylase (G7 PNP, Blocked) (Europe/Asia) (5)	U/L	87.1	69.7 – 104	811	649 – 973	μmol/L/sec	1.45	1.16 – 1.75	13.5	10.8 – 16.2
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (IFCC 2002) (Europe/Asia) (5)	U/L	40.6	32.5 – 48.7	208	166 – 250	μmol/L/sec	0.678	0.542 – 0.813	3.47	2.78 – 4.17
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (5)	U/L	31.6	25.2 – 37.9	159	127 – 191	μmol/L/sec	0.528	0.422 – 0.632	2.65	2.12 – 3.18
Bilirubin, Direct (Diazotization)	mg/dL	0.400	0.320 – 0.480	1.70	1.36 – 2.04	μmol/L	6.84	5.47 – 8.21	29.1	23.3 – 34.9
Bilirubin, Direct (Diazotization) (Europe/Asia)	mg/dL	0.381	0.305 – 0.457	1.51	1.21 – 1.81	μmol/L	6.51	5.21 – 7.81	25.8	20.7 – 31.0
Bilirubin, Direct (DPD) (OSR61181)	mg/dL	0.300	0.050 – 0.550	1.00	0.730 – 1.33	μmol/L	5.13	0.855 – 9.41	17.1	12.5 – 22.7
Bilirubin, Total (DPD)	mg/dL	1.30	0.900 – 1.70	4.30	3.90 – 4.70	μmol/L	22.2	15.4 – 29.1	73.5	66.7 – 80.4
Bilirubin, Total (DPD) (Europe/Asia)	mg/dL	1.35	1.08 – 1.62	4.52	3.61 – 5.42	μmol/L	23.1	18.5 – 27.7	77.2	61.8 – 92.7
Calcium (Arsenazo III)	mg/dL	9.30	8.30 – 10.3	12.4	11.4 – 13.4	mmol/L	2.33	2.08 – 2.58	3.10	2.85 – 3.35
Calcium (o-cresolphthalein complexone)	mg/dL	9.10	8.10 – 10.1	12.5	11.5 – 13.5	mmol/L	2.28	2.03 – 2.53	3.13	2.88 – 3.38
Carbamazepine (Syva EMIT 2000)	μg/mL	2.90	1.90 – 3.90	14.7	11.0 – 18.4	μmol/L	12.3	8.04 – 16.5	62.2	46.5 – 77.8
Carbon Dioxide (CO2) (PEP carboxylase)	mEq/L	34.0	27.0 – 41.0	16.9	14.0 – 20.0	mmol/L	34.0	27.0 – 41.0	16.9	14.0 – 20.0
Ceruloplasmin (Immunoturbidimetric) (1)	mg/dL	▲		▲		mg/L	▲		▲	
Chloride (ISE Indirect)	mEq/L	98.9	94.0 – 104	82.5	78.0 – 87.0	mmol/L	98.9	94.0 – 104	82.5	78.0 – 87.0
Cholesterol, High Density Lipoprotein (HDL) (OSR6X87) (Europe/Asia) (3)	mg/dL	66.0	52.8 – 79.2	25.6	20.5 – 30.8	mmol/L	1.71	1.37 – 2.05	0.664	0.531 – 0.797
Cholesterol, High Density Lipoprotein (HDL) (OSR6X95) (3)	mg/dL	71.1	57.0 – 85.0	24.9	20.0 – 30.0	mmol/L	1.84	1.48 – 2.20	0.645	0.518 – 0.777
Cholesterol, Low Density Lipoprotein (LDL) (OSR6X83) (Europe/Asia)	mg/dL	131	105 – 157	63.3	50.6 – 76.0	mmol/L	3.39	2.71 – 4.07	1.64	1.31 – 1.97
Cholesterol, Low Density Lipoprotein (LDL) (OSR6X96)	mg/dL	94.7	76.0 – 114	44.4	36.0 – 53.0	mmol/L	2.45	1.97 – 2.95	1.15	0.932 – 1.37
Cholesterol, Total (CHOD/PAP) (Europe/Asia)	mg/dL	249	199 – 299	99.0	79.2 – 119	mmol/L	6.45	5.16 – 7.74	2.56	2.05 – 3.08
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	236	212 – 259	93.4	84.0 – 103	mmol/L	6.11	5.49 – 6.71	2.42	2.18 – 2.67
Cholinesterase (Butyrylthiocholine (Trinder)) (Europe/Asia) (1) (5)	U/L	4169	3335 – 5002	1767	1414 – 2120	μmol/L/sec	69.6	55.7 – 83.5	29.5	23.6 – 35.4
Creatine Kinase (CK) (NAC activated) (5)	U/L	111	78.0 – 145	353	247 – 459	μmol/L/sec	1.86	1.30 – 2.42	5.89	4.12 – 7.67
Creatine Kinase (CK) (NAC activated) (IFCC 2002) (Europe/Asia) (5)	U/L	134	107 – 160	424	339 – 509	μmol/L/sec	2.23	1.78 – 2.68	7.08	5.67 – 8.50
Creatinine (Alkaline picrate-kinetic)	mg/dL	2.14	1.84 – 2.44	5.66	5.36 – 5.96	μmol/L	189	163 – 216	500	474 – 527

	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
BECKMAN COULTER AU400 / 600 / 640 / 680 / 2700 / 5400 (continued)										
Creatinine (Alkaline picrate-kinetic) (Europe/Asia)	mg/dL	2.20	1.76 – 2.64	5.63	4.50 – 6.76	μmol/L	194	156 – 233	498	398 – 597
Digoxin (Syva EMIT 2000)	ng/mL	1.21	0.610 – 1.82	3.14	2.50 – 3.80	nmol/L	1.55	0.781 – 2.33	4.02	3.20 – 4.86
Gamma Glutamyltransferase (GGT) (5)	U/L	46.3	37.0 – 56.0	117	94.0 – 140	μmol/L/sec	0.773	0.618 – 0.935	1.96	1.57 – 2.34
Gamma Glutamyltransferase (GGT) (IFCC 2002) (Europe/Asia) (5)	U/L	61.9	49.5 – 74.3	154	123 – 185	μmol/L/sec	1.03	0.827 – 1.24	2.58	2.06 – 3.09
Gentamicin (Syva EMIT 2000)	μg/mL	1.48	1.08 – 1.88	8.70	6.50 – 10.9	μmol/L	3.09	2.26 – 3.93	18.2	13.6 – 22.8
Glucose (Hexokinase)	mg/dL	86.1	78.0 – 95.0	278	250 – 306	mmol/L	4.78	4.33 – 5.27	15.4	13.9 – 17.0
Immunoglobulin A (IgA) (Immunoturbidimetric) (1)	mg/dL	190	152 – 227	128	103 – 154	g/L	1.90	1.52 – 2.27	1.28	1.03 – 1.54
Immunoglobulin G (IgG) (Immunoturbidimetric) (1)	mg/dL	899	719 – 1079	607	486 – 729	g/L	8.99	7.19 – 10.8	6.07	4.86 – 7.29
Immunoglobulin M (IgM) (Immunoturbidimetric) (1)	mg/dL	91.0	72.8 – 109	57.2	45.8 – 68.7	g/L	0.910	0.728 – 1.09	0.572	0.458 – 0.687
Iron (TPTZ-no deproteinization)	μg/dL	267	213 – 320	73.0	58.0 – 88.0	μmol/L	47.7	38.1 – 57.3	13.1	10.4 – 15.8
Iron (TPTZ-no deproteinization) (Europe/Asia)	μg/dL	250	200 – 300	67.9	54.4 – 81.5	μmol/L	44.7	35.8 – 53.7	12.2	9.73 – 14.6
Iron-Binding Capacity, Unsaturated (UIBC) (Nitroso-PSAP) (1)	μg/dL	171	137 – 205	158	127 – 190	μmol/L	30.6	24.5 – 36.7	28.3	22.7 – 34.0
Lactate (Lactic Acid) (Lactate to Pyruvate)	mg/dL	36.5	29.0 – 44.0	9.20	7.00 – 11.0	mmol/L	4.05	3.22 – 4.88	1.02	0.777 – 1.22
Lactate (Lactic Acid) (Lactate to Pyruvate) (OSR6193) (Europe/Asia)	mg/dL	38.9	31.1 – 46.7	9.53	7.62 – 11.4	mmol/L	4.32	3.46 – 5.18	1.06	0.846 – 1.27
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (5)	U/L	143	114 – 171	306	245 – 367	μmol/L/sec	2.38	1.90 – 2.86	5.11	4.09 – 6.13
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (IFCC 2002) (Europe/Asia) (5)	U/L	172	137 – 206	373	299 – 448	μmol/L/sec	2.87	2.30 – 3.44	6.24	4.99 – 7.48
Lipase (Enzymatic, colorimetric) (5)	U/L	39.7	28.0 – 52.0	86.4	60.0 – 112	μmol/L/sec	0.663	0.468 – 0.868	1.44	1.00 – 1.87
Lithium (Colorimetric)	mEq/L	0.600	0.300 – 0.900	1.90	1.50 – 2.30	mmol/L	0.600	0.300 – 0.900	1.90	1.50 – 2.30
Magnesium (Xylidyl blue)	mg/dL	1.80	1.40 – 2.30	4.00	3.00 – 5.00	mmol/L	0.741	0.576 – 0.946	1.65	1.23 – 2.06
Phenobarbital (Syva EMIT 2000)	μg/mL	12.6	10.6 – 14.6	46.4	37.0 – 56.0	μmol/L	54.3	45.7 – 62.9	200	159 – 241
Phenytoin (Syva EMIT 2000)	μg/mL	12.4	9.30 – 15.5	22.5	16.9 – 28.1	μmol/L	49.1	36.8 – 61.4	89.1	66.9 – 111
Phosphorus (Phosphomolybdate-UV)	mg/dL	3.40	3.04 – 3.76	7.50	6.70 – 8.30	mmol/L	1.10	0.981 – 1.22	2.42	2.16 – 2.68
Phosphorus (Phosphomolybdate-UV) (Europe/Asia)	mg/dL	3.43	3.08 – 3.77	7.59	6.83 – 8.35	mmol/L	1.11	0.996 – 1.22	2.45	2.21 – 2.70
Potassium (ISE Indirect)	mEq/L	3.80	3.30 – 4.30	6.00	5.50 – 6.50	mmol/L	3.80	3.30 – 4.30	6.00	5.50 – 6.50
Protein, Total (Biuret, reagent blank, end point)	g/dL	6.70	6.10 – 7.40	4.40	3.90 – 4.80	g/L	67.0	61.0 – 74.0	44.0	39.0 – 48.0
Salicylate (Syva EMIT 2000)	mg/dL	7.00	5.00 – 9.00	20.0	14.0 – 26.0	mmol/L	0.507	0.362 – 0.652	1.45	1.01 – 1.88
Sodium (ISE Indirect)	mEq/L	143	139 – 147	123	119 – 127	mmol/L	143	139 – 147	123	119 – 127
T3 Uptake/T-Uptake	% Uptake	31.9	25.5 – 38.3	57.5	46.0 – 69.0	% Uptake	31.9	25.5 – 38.3	57.5	46.0 – 69.0
T4 Total	μg/dL	7.20	5.80 – 8.70	22.6	18.1 – 27.1	nmol/L	92.9	74.8 – 112	292	233 – 350
Theophylline (Syva EMIT 2000)	μg/mL	8.70	6.50 – 10.9	23.5	18.0 – 29.0	μmol/L	48.3	36.1 – 60.5	130	99.9 – 161
Tobramycin (Syva EMIT 2000)	μg/mL	6.60	4.95 – 8.25	1.40	1.05 – 1.75	μmol/L	14.1	10.6 – 17.7	3.00	2.25 – 3.75
Transferrin (Immunoturbidimetric) (1)	mg/dL	256	205 – 307	174	140 – 209	g/L	2.56	2.05 – 3.07	1.74	1.40 – 2.09
Triglycerides (Enzymatic, Endpoint)	mg/dL	194	145 – 242	89.4	67.0 – 112	mmol/L	2.19	1.64 – 2.73	1.01	0.757 – 1.27
Triglycerides (Enzymatic, Endpoint) (Europe/Asia)	mg/dL	200	160 – 240	93.5	74.8 – 112	mmol/L	2.26	1.81 – 2.71	1.06	0.845 – 1.27
Urea Nitrogen (Urease, UV) (8)	mg/dL	16.9	15.0 – 19.0	46.4	44.0 – 48.0	mmol/L	6.03	5.36 – 6.78	16.6	15.7 – 17.1
Uric Acid (Uricase, colorimetric)	mg/dL	5.10	4.20 – 5.90	10.9	9.10 – 12.8	μmol/L	303	250 – 351	648	541 – 761
Uric Acid (Uricase, colorimetric) (Europe/Asia)	mg/dL	4.74	3.80 – 5.69	10.2	8.12 – 12.2	μmol/L	282	226 – 339	604	483 – 725
Valproic Acid (Syva EMIT 2000)	μg/mL	39.4	29.5 – 49.2	144	108 – 180	μmol/L	273	204 – 341	1000	748 – 1247
Vancomycin (Syva EMIT 2000)	μg/mL	6.20	4.70 – 7.80	31.5	25.2 – 37.8	μmol/L	4.28	3.24 – 5.38	21.7	17.4 – 26.1
BECKMAN COULTER CX SERIES										
Acetaminophen (Immunoturbidimetric)	μg/mL	15.1	12.1 – 18.1	87.9	70.3 – 106	μmol/L	99.8	79.8 – 120	581	465 – 697
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (IFCC 2002) (5)	U/L	35.6	28.5 – 42.7	110	88.1 – 132	μmol/L/sec	0.594	0.475 – 0.713	1.84	1.47 – 2.21
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (5)	U/L	35.2	28.2 – 42.2	95.8	76.6 – 115	μmol/L/sec	0.588	0.470 – 0.705	1.60	1.28 – 1.92
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (IFCC 2002) (5)	U/L	45.1	35.3 – 54.9	130	103 – 157	μmol/L/sec	0.753	0.590 – 0.917	2.17	1.72 – 2.62
Albumin (Bromocresol purple) (Cartridge-ALB)	g/dL	3.95	3.16 – 4.74	2.54	2.03 – 3.05	g/L	39.5	31.6 – 47.4	25.4	20.3 – 30.5
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (5)	U/L	113	90.1 – 135	620	496 – 744	μmol/L/sec	1.88	1.50 – 2.26	10.3	8.28 – 12.4
Amylase (G7 PNP, Blocked) (AMY7) (5)	U/L	\$	\$	\$	\$	μmol/L/sec	\$	\$	\$	\$
Amylase (Maltotetraose) (AMY) (5)	U/L	\$	\$	\$	\$	μmol/L/sec	\$	\$	\$	\$
Amylase (Maltotetraose) (Europe) (AMY) (5)	U/L	\$	\$	\$	\$	μmol/L/sec	\$	\$	\$	\$
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (IFCC 2002) (5)	U/L	42.8	34.2 – 51.4	211	169 – 253	μmol/L/sec	0.715	0.572 – 0.858	3.52	2.81 – 4.22
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (5)	U/L	35.5	28.4 – 42.6	174	140 – 209	μmol/L/sec	0.593	0.474 – 0.711	2.91	2.33 – 3.49
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (IFCC 2002) (5)	U/L	38.9	30.6 – 47.3	202	162 – 243	μmol/L/sec	0.650	0.511 – 0.790	3.37	2.71 – 4.06
Bilirubin, Direct (Diazotization)	mg/dL	0.290	0.223 – 0.357	1.05	0.843 – 1.26	μmol/L	4.96	3.82 – 6.10	18.0	14.4 – 21.6
Bilirubin, Total (Jendrassik Grof)	mg/dL	1.44	1.15 – 1.73	4.64	3.71 – 5.57	μmol/L	24.6	19.7 – 29.5	79.3	63.5 – 95.2
Calcium (Arsenazo III) (Cartridge-CA)	mg/dL	\$	\$	\$	\$	mmol/L	\$	\$	\$	\$
Calcium (ISE Indirect) (CALC)	mg/dL	9.07	8.16 – 9.97	11.8	10.6 – 13.0	mmol/L	2.27	2.04 – 2.49	2.95	2.65 – 3.25
Carbamazepine (Immunoturbidimetric)	μg/mL	\$	\$	\$	\$	μmol/L	\$	\$	\$	\$
Carbon Dioxide (CO2) (ISE Indirect)	mEq/L	32.6	26.1 – 39.1	17.7	14.2 – 21.3	mmol/L	32.6	26.1 – 39.1	17.7	14.2 – 21.3
Chloride (ISE Indirect)	mEq/L	101	91.1 – 111	85.3	76.7 – 93.8	mmol/L	101	91.1 – 111	85.3	76.7 – 93.8
Cholesterol, High Density Lipoprotein (HDL) (Direct measure, polymer-polyanion) (3)	mg/dL	83.5	66.8 – 100	28.6	22.9 – 34.4	mmol/L	2.16	1.73 – 2.60	0.742	0.593 – 0.890
Cholesterol, Low Density Lipoprotein (LDL) (Direct measure)	mg/dL	105	83.0 – 127	48.2	38.1 – 58.3	mmol/L	2.72	2.15 – 3.29	1.25	0.986 – 1.51
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	240	192 – 288	98.1	78.5 – 118	mmol/L	6.22	4.98 – 7.47	2.54	2.03 – 3.05
Cholinesterase (Butyrylthiocholine (Trinder) (Slope 1; Offset 0) (Europe) (1) (5)	U/L	5044	4035 – 6053	1887	1510 – 2265	μmol/L/sec	84.2	67.4 – 101	31.5	25.2 – 37.8
Cholinesterase (DGKC '72) (Slope 1,168; Offset 9) (Europe) (1) (5)	U/L	5900	4722 – 7079	2213	1773 – 2655	μmol/L/sec	98.5	78.9 – 118	37.0	29.6 – 44.3
Creatine Kinase (CK) (NAC activated) (Europe/Asia) (5)	U/L	129	103 – 154	422	337 – 506	μmol/L/sec	2.15	1.72 – 2.58	7.04	5.63 – 8.45
Creatine Kinase (CK) (Rosalki, other modified) (5)	U/L	127	101 – 152	427	341 – 512	μmol/L/sec	2.12	1.69 – 2.54	7.13	5.70 – 8.55
Creatinine (Alkaline picrate-kinetic) (Cartridge-CR-S)	mg/dL	2.13	1.70 – 2.55	5.77	4.62 – 6.92	μmol/L	188	150 – 225	510	408 – 612
Creatinine (Alkaline picrate-kinetic) (Modular-CRE3)	mg/dL	\$	\$	\$	\$	μmol/L	\$	\$	\$	\$
Creatinine (Enzymatic) (CR-E)	mg/dL	\$	\$	\$	\$	μmol/L	\$	\$	\$	\$
Digoxin (Immunoturbidimetric)	ng/mL	0.833	0.667 – 1.00	2.65	2.12 – 3.18	nmol/L	1.07	0.853 – 1.28	3.39	2.71 – 4.07
Gamma Glutamyltransferase (GGT) (Szasz) (5)	U/L	55.5	44.4 – 66.6	149	115 – 183	μmol/L/sec	0.927	0.741 – 1.11	2.49	1.92 – 3.06
Gamma Glutamyltransferase (GGT) (Szasz) (IFCC 2002) (5)	U/L	63.9	51.1 – 76.6	154	123 – 185	μmol/L/sec	1.07	0.853 – 1.28	2.57	2.06 – 3.09
Glucose (Glucose Oxidase, oxygen consumption) (GLU3)	mg/dL	83.2	66.5 – 99.8	267	213 – 320	mmol/L	4.62	3.69 – 5.54	14.8	11.8 – 17.8
Glucose (Hexokinase) (GLU)	mg/dL	88.8	71.0 – 107	279	223 – 334	mmol/L	4.93	3.94 – 5.91	15.5	12.4 – 18.5
Iron (Ferrozine-no deproteinization)	μg/dL	239	191 – 287	66.1	52.9 – 79.3	μmol/L	42.8	34.3 – 51.4	11.8	9.46 – 14.2
Lactate (Lactic Acid) (Enzymatic)	mg/dL	\$	\$	\$	\$	mmol/L	\$	\$	\$	\$
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (5)	U/L	140	112 – 168	300	240 – 360	μmol/L/sec	2.34	1.87 – 2.81	5.02	4.01 – 6.02
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (IFCC 2002) (5)	U/L	174	139 – 209	366	293 – 439	μmol/L/sec	2.91	2.33 – 3.49	6.11	4.89 – 7.33
Lipase (Colorimetric) (LIP) (5)	U/L									

	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
BECKMAN COULTER CX SERIES (continued)										
Salicylate (Enzymatic)	mg/dL	5.53	4.43 – 6.64	18.1	14.5 – 21.7	mmol/L	0.401	0.320 – 0.481	1.31	1.05 – 1.57
Sodium (ISE Indirect)	mEq/L	145	131 – 160	125	113 – 138	mmol/L	145	131 – 160	125	113 – 138
Theophylline (Immunoturbidimetric)	µg/mL	8.28	6.63 – 9.94	22.2	17.8 – 26.7	µmol/L	46.0	36.8 – 55.2	123	98.6 – 148
Triglycerides (Enzymatic with glycerol blank)	mg/dL	204	163 – 244	94.0	75.2 – 113	mmol/L	2.30	1.84 – 2.76	1.06	0.850 – 1.27
Urea Nitrogen (Conductometry) (Modular-BUN3) (8)	mg/dL	\$		\$		mmol/L	\$		\$	
Urea Nitrogen (Urease, UV) (Cartridge-BUN) (8)	mg/dL	16.9	13.5 – 20.3	45.9	36.7 – 55.1	mmol/L	6.02	4.82 – 7.23	16.4	13.1 – 19.7
Uric Acid (Uricase, colorimetric)	mg/dL	4.77	3.82 – 5.72	9.22	7.38 – 11.1	µmol/L	284	227 – 340	548	439 – 658
Valproic Acid (Immunoturbidimetric)	µg/mL	32.5	26.0 – 39.0	113	90.3 – 135	µmol/L	225	180 – 271	782	626 – 938
BECKMAN COULTER SYNCHRON LX / UNICEL DXC SERIES										
Acetaminophen (Immunoturbidimetric)	µg/mL	13.1	10.4 – 15.7	87.6	70.1 – 105	µmol/L	86.3	69.1 – 104	579	463 – 695
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (IFCC 2002) (5)	U/L	37.0	29.6 – 44.4	106	84.9 – 127	µmol/L/sec	0.618	0.494 – 0.742	1.77	1.42 – 2.13
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (Henry) (5)	U/L	40.1	32.1 – 48.1	102	81.2 – 122	µmol/L/sec	0.670	0.536 – 0.804	1.70	1.36 – 2.03
Albumin (Bromcresol purple) (Modular-ALBm)	g/dL	4.03	3.22 – 4.84	2.52	2.02 – 3.02	g/L	40.3	32.2 – 48.4	25.2	20.2 – 30.2
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (5)	U/L	115	91.8 – 138	639	512 – 767	µmol/L/sec	1.92	1.53 – 2.30	10.7	8.54 – 12.8
Amylase (G7 PNP, Blocked) (AMY7) (5)	U/L	89.9	71.9 – 108	874	699 – 1049	µmol/L/sec	1.50	1.20 – 1.80	14.6	11.7 – 17.5
Amylase (Maltotetraose) (5)	U/L	\$		\$		µmol/L/sec	\$		\$	
Amylase (Maltotetraose) (Europe/Asia) (5)	U/L	\$		\$		µmol/L/sec	\$		\$	
Amylase, Pancreatic (G7 PNP immuno-inhibition) (5)	U/L	49.5	39.6 – 59.4	638	511 – 766	µmol/L/sec	0.826	0.661 – 0.992	10.7	8.53 – 12.8
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (IFCC 2002) (5)	U/L	37.4	29.9 – 44.9	206	165 – 247	µmol/L/sec	0.625	0.500 – 0.750	3.43	2.75 – 4.12
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (Henry) (5)	U/L	38.5	30.8 – 46.2	182	146 – 219	µmol/L/sec	0.643	0.514 – 0.772	3.04	2.44 – 3.65
Bilirubin, Direct (Diazotization)	mg/dL	0.299	0.239 – 0.359	1.06	0.850 – 1.28	µmol/L	5.11	4.09 – 6.14	18.2	14.5 – 21.8
Bilirubin, Total (Jendrasik Grof)	mg/dL	1.35	1.08 – 1.62	4.50	3.60 – 5.40	µmol/L	23.1	18.5 – 27.7	77.0	61.6 – 92.3
Calcium (ISE Indirect) (CALC)	mg/dL	9.11	8.20 – 10.0	12.0	10.8 – 13.2	mmol/L	2.28	2.05 – 2.50	3.00	2.70 – 3.30
Carbamazepine (Immunoturbidimetric)	µg/mL	2.66	2.13 – 3.20	14.9	11.9 – 17.9	µmol/L	11.3	9.01 – 13.5	63.0	50.4 – 75.6
Carbon Dioxide (CO <sub>2</sub> ) (ISE Indirect)	mEq/L	34.4	27.5 – 41.2	18.2	14.5 – 21.8	mmol/L	34.4	27.5 – 41.2	18.2	14.5 – 21.8
Chloride (ISE Indirect)	mEq/L	99.3	89.3 – 109	83.1	74.8 – 91.4	mmol/L	99.3	89.3 – 109	83.1	74.8 – 91.4
Cholesterol, High Density Lipoprotein (HDL) (Direct measure, polymer-polyanion) (3)	mg/dL	88.2	70.5 – 106	30.4	24.3 – 36.5	mmol/L	2.28	1.83 – 2.74	0.787	0.630 – 0.944
Cholesterol, Low Density Lipoprotein (LDL) (Direct measure)	mg/dL	98.2	78.5 – 118	46.7	37.4 – 56.0	mmol/L	2.54	2.03 – 3.05	1.21	0.968 – 1.45
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	233	187 – 280	98.6	78.9 – 118	mmol/L	6.04	4.83 – 7.25	2.55	2.04 – 3.07
Cholinesterase (Butyrylthiocholine (Trinder)) (Slope 1; Offset 0) (1) (5)	U/L	4588	3671 – 5506	1727	1382 – 2073	µmol/L/sec	76.6	61.3 – 92.0	28.8	23.1 – 34.6
Cholinesterase (DGKC 72) (Slope 1,168; Offset 9) (Europe) (1) (5)	U/L	5368	4297 – 6440	2026	1623 – 2430	µmol/L/sec	89.6	71.8 – 108	33.8	27.1 – 40.6
Creatine Kinase (CK) (NAC activated) (Europe/Asia) (5)	U/L	133	107 – 160	421	337 – 506	µmol/L/sec	2.22	1.78 – 2.67	7.04	5.63 – 8.44
Creatine Kinase (CK) (Rosalki, other modified) (5)	U/L	137	110 – 164	463	371 – 556	µmol/L/sec	2.29	1.83 – 2.74	7.74	6.19 – 9.29
Creatinine (Alkaline picrate-kinetic) (Cartridge-CR-S)	mg/dL	1.98	1.58 – 2.37	5.76	4.60 – 6.91	µmol/L	175	140 – 210	509	407 – 610
Creatinine (Alkaline picrate-kinetic) (Modular-CREm)	mg/dL	2.56	2.05 – 3.08	6.33	5.06 – 7.59	µmol/L	227	181 – 272	559	447 – 671
Creatinine (Enzymatic) (CR-E)	mg/dL	\$		\$		µmol/L	\$		\$	
Digoxin (Immunoturbidimetric)	ng/mL	1.04	0.832 – 1.25	2.82	2.26 – 3.38	nmol/L	1.33	1.06 – 1.60	3.61	2.89 – 4.33
Gamma Glutamyltransferase (GGT) (Szasz) (5)	U/L	59.3	47.4 – 71.1	165	132 – 198	µmol/L/sec	0.989	0.792 – 1.19	2.76	2.21 – 3.31
Gamma Glutamyltransferase (GGT) (Szasz) (IFCC 2002) (5)	U/L	64.0	51.2 – 76.8	159	127 – 190	µmol/L/sec	1.07	0.855 – 1.28	2.65	2.12 – 3.18
Gentamicin (Immunoturbidimetric)	µg/mL	1.32	1.06 – 1.59	9.53	7.62 – 11.4	µmol/L	2.76	2.21 – 3.31	19.9	15.9 – 23.9
Glucose (Glucose Oxidase, oxygen consumption) (GLUCm)	mg/dL	86.8	69.4 – 104	283	226 – 340	mmol/L	4.82	3.85 – 5.78	15.7	12.6 – 18.8
Glucose (Hexokinase)	mg/dL	86.8	69.4 – 104	272	218 – 327	mmol/L	4.82	3.85 – 5.78	15.1	12.1 – 18.1
Immunoglobulin A (IgA) (Immunoturbidimetric) (1)	mg/dL	190	152 – 228	131	105 – 157	g/L	1.90	1.52 – 2.28	1.31	1.05 – 1.57
Immunoglobulin G (IgG) (Immunoturbidimetric) (1)	mg/dL	925	740 – 1110	607	486 – 729	g/L	9.25	7.40 – 11.1	6.07	4.86 – 7.29
Immunoglobulin M (IgM) (Immunoturbidimetric) (1)	mg/dL	93.1	74.5 – 112	63.6	50.9 – 76.3	g/L	0.931	0.745 – 1.12	0.636	0.509 – 0.763
Iron (Ferrozine-no deproteinization)	µg/dL	239	191 – 287	66.1	52.9 – 79.3	µmol/L	42.8	34.3 – 51.4	11.8	9.46 – 14.2
Iron-Binding Capacity, Total (TIBC) (Ion exchange resin, ferrozine) (1)	µg/dL	393	314 – 472	236	189 – 283	µmol/L	70.3	56.3 – 84.4	42.2	33.8 – 50.6
Lactate (Lactic Acid) (Enzymatic)	mg/dL	43.6	34.9 – 52.3	11.2	8.97 – 13.5	mmol/L	4.84	3.87 – 5.81	1.24	0.996 – 1.49
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (5)	U/L	148	118 – 177	314	251 – 377	µmol/L/sec	2.47	1.98 – 2.96	5.25	4.20 – 6.30
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (IFCC 2002) (5)	U/L	170	136 – 204	352	282 – 422	µmol/L/sec	2.83	2.27 – 3.40	5.88	4.70 – 7.05
Lipase (Colorimetric) (LIP) (5)	U/L	34.4	27.5 – 41.3	81.3	65.0 – 97.5	µmol/L/sec	0.574	0.459 – 0.689	1.36	1.09 – 1.63
Lithium (Colorimetric)	mEq/L	0.591	0.532 – 0.650	1.87	1.68 – 2.05	mmol/L	0.591	0.532 – 0.650	1.87	1.68 – 2.05
Magnesium (Calmagite)	mg/dL	1.90	1.62 – 2.19	4.08	3.47 – 4.69	mmol/L	0.782	0.664 – 0.899	1.68	1.43 – 1.93
Phenobarbital (Immunoturbidimetric)	µg/mL	13.0	10.4 – 15.6	43.2	34.6 – 51.9	µmol/L	56.1	44.9 – 67.4	186	149 – 224
Phenytoin (Immunoturbidimetric)	µg/mL	10.3	8.27 – 12.4	21.1	16.9 – 25.4	µmol/L	40.9	32.7 – 49.1	83.7	66.9 – 100
Phosphorus (Phosphomolybdate-UV)	mg/dL	3.69	3.32 – 4.06	7.85	7.07 – 8.64	mmol/L	1.19	1.07 – 1.31	2.54	2.28 – 2.79
Potassium (ISE Indirect)	mEq/L	3.86	3.47 – 4.25	6.09	5.48 – 6.70	mmol/L	3.86	3.47 – 4.25	6.09	5.48 – 6.70
Protein, Total (Biuret, kinetic) (Modular-TPm)	g/dL	6.57	5.25 – 7.88	4.30	3.44 – 5.16	g/L	65.7	52.5 – 78.8	43.0	34.4 – 51.6
Protein, Total (Biuret, no serum blank, end point) (Cartridge-TP)	g/dL	6.35	5.08 – 7.62	4.21	3.37 – 5.06	g/L	63.5	50.8 – 76.2	42.1	33.7 – 50.6
Salicylate (Enzymatic)	mg/dL	6.15	4.92 – 7.38	18.3	14.6 – 21.9	mmol/L	0.445	0.356 – 0.534	1.32	1.06 – 1.59
Sodium (ISE Indirect)	mEq/L	146	131 – 160	126	114 – 139	mmol/L	146	131 – 160	126	114 – 139
Theophylline (Immunoturbidimetric)	µg/mL	8.12	6.49 – 9.74	22.6	18.1 – 27.2	µmol/L	45.0	36.0 – 54.1	126	100 – 151
Tobramycin (Immunoturbidimetric)	µg/mL	7.35	5.88 – 8.82	1.57	1.25 – 1.88	µmol/L	15.7	12.6 – 18.9	3.35	2.68 – 4.02
Transferrin (Immunoturbidimetric) (1)	mg/dL	254	203 – 304	165	132 – 198	g/L	2.54	2.03 – 3.04	1.65	1.32 – 1.98
Triglycerides (Enzymatic with glycerol blank)	mg/dL	205	164 – 247	96.2	77.0 – 115	mmol/L	2.32	1.86 – 2.79	1.09	0.870 – 1.30
Urea Nitrogen (Conductometry) (8)	mg/dL	15.5	12.4 – 18.6	44.0	35.2 – 52.8	mmol/L	5.53	4.43 – 6.64	15.7	12.6 – 18.8
Uric Acid (Uricase, colorimetric)	mg/dL	4.58	3.66 – 5.50	9.18	7.34 – 11.0	µmol/L	272	218 – 327	546	437 – 655
Valproic Acid (Immunoturbidimetric)	µg/mL	32.4	25.9 – 38.9	114	91.2 – 137	µmol/L	225	180 – 270	790	632 – 948
Vancomycin (Immunoturbidimetric)	µg/mL	7.65	6.12 – 9.18	39.2	31.4 – 47.0	µmol/L	5.28	4.22 – 6.33	27.0	21.6 – 32.5
CLINICAL DATA ATAC 8000										
Alanine Aminotransferase (ALT/SGPT) (Henry) (5)	U/L	\$		\$		µmol/L/sec	\$		\$	
Albumin (Bromcresol green)	g/dL	\$		\$		g/L	\$		\$	
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (5)	U/L	\$		\$		µmol/L/sec	\$		\$	
Aspartate Aminotransferase (AST/SGOT) (5)	U/L	\$		\$		µmol/L/sec	\$		\$	
Bilirubin, Direct (Diazotization)	mg/dL	\$		\$		µmol/L	\$		\$	
Bilirubin, Total (Diazotization)	mg/dL	\$		\$		µmol/L	\$		\$	
Calcium (o-cresolphthalein complexone)	mg/dL	\$		\$		mmol/L	\$		\$	
Carbon Dioxide (CO <sub>2</sub> ) (ISE Indirect)	mEq/L	\$		\$		mmol/L	\$		\$	
Chloride (ISE Indirect)	mEq/L	\$		\$		mmol/L	\$		\$	
Cholesterol, High Density Lipoprotein (HDL) (3)	mg/dL	\$		\$		mmol/L	\$		\$	
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	\$		\$		mmol/L	\$		\$	
Creatine Kinase (CK) (5)	U/L	\$		\$		µmol/L/sec	\$		\$	
Creatinine (Alkaline picrate-kinetic)	mg/dL	\$		\$		µmol/L	\$		\$	
Gamma Glutamyltransferase (GGT) (5)	U/L	\$		\$		µmol/L/sec	\$		\$	
Glucose (Hexokinase)	mg/dL	\$		\$		mmol/L	\$		\$	
Phosphorus (Phosphomolybdate-UV)	mg/dL	\$		\$		mmol/L	\$		\$	
Potassium (ISE Indirect)	mEq/L	\$		\$		mmol/L	\$		\$	

	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
CLINICAL DATA ATAC 8000 (continued)										
Protein, Total - Biuret	g/dL	\$		\$		g/L	\$		\$	
Sodium (ISE Indirect)	mEq/L	\$		\$		mmol/L	\$		\$	
Triglycerides (Enzymatic)	mg/dL	\$		\$		mmol/L	\$		\$	
Urea Nitrogen (Urease, GLDH) (8)	mg/dL	\$		\$		mmol/L	\$		\$	
Uric Acid (Uricase, UV)	mg/dL	\$		\$		µmol/L	\$		\$	
NOVA SERIES										
Chloride (ISE Direct)	mEq/L	\$		\$		mmol/L	\$		\$	
Potassium (ISE Direct)	mEq/L	\$		\$		mmol/L	\$		\$	
Sodium (ISE Direct)	mEq/L	\$		\$		mmol/L	\$		\$	
ORTHO VITROS / VITROS 5,1 FS										
Acetaminophen (Enzymatic, colorimetric)	µg/mL	<10.0		89.7	71.7 – 108	µmol/L	<66.1		593	474 – 711
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (IFCC 2002) (5)	U/L	41.1	32.9 – 49.4	115	91.6 – 137	µmol/L/sec	0.687	0.549 – 0.824	1.91	1.53 – 2.29
Albumin (Bromocresol green)	g/dL	4.40	3.52 – 5.28	2.58	2.06 – 3.09	g/L	44.0	35.2 – 52.8	25.8	20.6 – 30.9
Alkaline Phosphatase (ALP) (PNPP, AMP buffer) (5)	U/L	71.9	57.5 – 86.3	420	336 – 504	µmol/L/sec	1.20	0.960 – 1.44	7.02	5.61 – 8.42
Amylase (Amylopectin, colorimetric) (5)	U/L	49.0	39.2 – 58.8	337	270 – 405	µmol/L/sec	0.818	0.655 – 0.982	5.63	4.50 – 6.76
Aspartate Aminotransferase (AST/SGOT) (Enzymatic, colorimetric) (IFCC 2002) (5)	U/L	46.8	37.5 – 56.2	202	161 – 242	µmol/L/sec	0.782	0.626 – 0.939	3.37	2.69 – 4.04
Bilirubin, Direct (BC) (Spectrophotometric)	mg/dL	0.147	0.116 – 0.170	0.315	0.250 – 0.370	µmol/L	2.51	1.98 – 2.91	5.39	4.28 – 6.33
Bilirubin, Indirect (BU) (Direct measure)	mg/dL	0.863	0.690 – 1.04	3.86	3.09 – 4.64	µmol/L	14.7	11.8 – 17.7	66.0	52.8 – 79.3
Bilirubin, Total (Diphylline, Diazonium Salt)	mg/dL	1.01	0.806 – 1.21	4.18	3.34 – 5.01	µmol/L	17.2	13.8 – 20.7	71.4	57.1 – 85.7
Calcium (Arsenazo III)	mg/dL	8.69	7.82 – 9.56	12.1	10.9 – 13.3	mmol/L	2.17	1.95 – 2.39	3.02	2.72 – 3.32
Carbamazepine (EIA)	µg/mL		<3.00 – 3.33	12.9	10.3 – 15.4	µmol/L		<12.7 – 14.1	54.4	43.5 – 65.3
Carbon Dioxide (CO <sub>2</sub> ) (Enzymatic)	mEq/L	30.9	24.7 – 37.1	17.3	13.8 – 20.7	mmol/L	30.9	24.7 – 37.1	17.3	13.8 – 20.7
Chloride (ISE Direct)	mEq/L	97.8	88.0 – 108	81.9	73.7 – 90.1	mmol/L	97.8	88.0 – 108	81.9	73.7 – 90.1
Cholesterol, High Density Lipoprotein (HDL) (Direct measure, PTA/MgCl <sub>2</sub> ) (3)	mg/dL	71.3	57.0 – 85.6	32.6	26.1 – 39.1	mmol/L	1.85	1.48 – 2.22	0.844	0.675 – 1.01
Cholesterol, Low Density Lipoprotein (LDL) (Calculated)	mg/dL	129	103 – 154	54.0	43.2 – 64.8	mmol/L	3.33	2.66 – 3.99	1.40	1.12 – 1.68
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	241	192 – 289	105	84.1 – 126	mmol/L	6.23	4.98 – 7.47	2.72	2.18 – 3.27
Cholinesterase (Butyrylthiocholine) (1) (5)	U/L	\$		\$		µmol/L/sec	\$		\$	
Creatine Kinase (CK) (Rosalki, other modified) (IFCC 2002) (5)	U/L	81.2	64.9 – 97.4	301	241 – 362	µmol/L/sec	1.36	1.08 – 1.63	5.03	4.03 – 6.04
Creatinine (Enzymatic) (IFCC-IDMS Standardized)	mg/dL	1.94	1.55 – 2.32	5.79	4.64 – 6.95	µmol/L	171	137 – 205	512	410 – 615
Digoxin (EIA)	ng/mL	1.03	0.827 – 1.24	2.72	2.17 – 3.26	nmol/L	1.32	1.06 – 1.59	3.48	2.78 – 4.17
Gamma Glutamyltransferase (GGT) (IFCC 2002) (5)	U/L	59.6	47.7 – 71.6	203	163 – 244	µmol/L/sec	0.996	0.797 – 1.19	3.40	2.72 – 4.08
Glucose (Glucose oxidase, hydrogen peroxide (Trinder))	mg/dL	89.6	71.7 – 108	265	212 – 318	mmol/L	4.97	3.98 – 5.97	14.7	11.8 – 17.6
Iron (Pyridyl azo dye)	µg/dL	253	203 – 304	58.5	46.8 – 70.2	µmol/L	45.4	36.3 – 54.4	10.5	8.38 – 12.6
Iron-Binding Capacity, Total (TIBC) (Chromazurol B) (dTIBC) (1)	µg/dL	372	298 – 447	215	172 – 257	µmol/L	66.6	53.3 – 80.0	38.4	30.7 – 46.1
Lactate (Lactic Acid) (Lactate to Pyruvate)	mg/dL	38.5	30.8 – 46.2	9.35	7.48 – 11.2	mmol/L	4.27	3.42 – 5.13	1.04	0.830 – 1.25
Lactate Dehydrogenase (LDH) (Pyruvate to lactate) (5)	U/L	441	353 – 529	1108	887 – 1330	µmol/L/sec	7.36	5.89 – 8.83	18.5	14.8 – 22.2
Lipase (Enzymatic with colipase) (5)	U/L	272	218 – 327	1214	971 – 1457	µmol/L/sec	4.55	3.64 – 5.46	20.3	16.2 – 24.3
Lithium (Colorimetric)	mEq/L	0.235	<0.200 – 0.284	1.40	1.26 – 1.54	mmol/L	0.235	<0.200 – 0.284	1.40	1.26 – 1.54
Magnesium (Formazan dye)	mg/dL	1.69	1.43 – 1.94	4.15	3.53 – 4.77	mmol/L	0.694	0.590 – 0.798	1.71	1.45 – 1.96
Phenobarbital (EIA)	µg/mL	9.63	7.70 – 11.6	44.4	35.6 – 53.3	µmol/L	41.5	33.2 – 49.8	192	153 – 230
Phenytoin (EIA)	µg/mL	8.76	7.01 – 10.5	18.5	14.8 – 22.2	µmol/L	34.7	27.8 – 41.6	73.4	58.7 – 88.0
Phosphorus (Phosphomolybdate reduction)	mg/dL	3.21	2.89 – 3.53	6.71	6.04 – 7.38	mmol/L	1.04	0.934 – 1.14	2.17	1.95 – 2.38
Potassium (ISE Direct)	mEq/L	3.93	3.53 – 4.32	6.05	5.45 – 6.66	mmol/L	3.93	3.53 – 4.32	6.05	5.45 – 6.66
Protein, Total (Biuret, no serum blank, end point)	g/dL	5.13	4.10 – 6.16	3.59	2.87 – 4.31	g/L	51.3	41.0 – 61.6	35.9	28.7 – 43.1
Salicylate (Colorimetric)	mg/dL	6.82	5.46 – 8.18	19.7	15.8 – 23.7	mmol/L	0.494	0.395 – 0.592	1.43	1.14 – 1.71
Sodium (ISE Direct)	mEq/L	146	132 – 161	125	113 – 138	mmol/L	146	132 – 161	125	113 – 138
Theophylline (Enzymetric)	µg/mL	31.5	25.2 – 37.8	34.1	27.3 – 40.9	µmol/L	175	140 – 210	189	151 – 227
Tobramycin (EIA)	µg/mL	5.53	4.42 – 6.64	1.42	1.14 – 1.71	µmol/L	11.8	9.47 – 14.2	3.04	2.43 – 3.65
Triglycerides (Enzymatic, Endpoint)	mg/dL	203	163 – 244	90.6	72.5 – 109	mmol/L	2.30	1.84 – 2.76	1.02	0.819 – 1.23
Urea Nitrogen (Urease, colorimetric) (8)	mg/dL	15.5	12.4 – 18.6	38.3	30.6 – 45.9	mmol/L	5.53	4.43 – 6.64	13.7	10.9 – 16.4
Uric Acid (Uricase, colorimetric)	mg/dL	4.55	3.64 – 5.46	9.13	7.30 – 11.0	µmol/L	271	217 – 325	543	434 – 651
Valproic Acid (EIA)	µg/mL	30.3	24.3 – 36.4	141	113 – >150	µmol/L	210	168 – 252	978	783 – >1040
Vancomycin (EIA)	µg/mL	6.59	5.27 – 7.90	33.2	26.6 – 39.9	µmol/L	4.54	3.63 – 5.45	22.9	18.3 – 27.5
ROCHE COBAS INTEGRA										
Acetaminophen (Enzymatic, colorimetric)	µg/mL	5.82	4.66 – 6.99	65.9	52.7 – 79.1	µmol/L	38.5	30.8 – 46.2	436	349 – 523
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (IFCC 2002) (5)	U/L	36.2	28.9 – 43.4	105	83.6 – 125	µmol/L/sec	0.604	0.483 – 0.725	1.75	1.40 – 2.10
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (5)	U/L	33.8	27.1 – 40.6	102	81.7 – 123	µmol/L/sec	0.565	0.452 – 0.678	1.70	1.36 – 2.05
Albumin (Bromocresol green)	g/dL	4.12	3.29 – 4.94	2.77	2.22 – 3.32	g/L	41.2	32.9 – 49.4	27.7	22.2 – 33.2
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (5)	U/L	91.9	73.5 – 110	460	368 – 552	µmol/L/sec	1.54	1.23 – 1.84	7.68	6.14 – 9.21
Alpha-1-Antitrypsin (Immunoturbidimetric) (1)	mg/dL	\$		\$		g/L	\$		\$	
Amylase (G7 PNP, Blocked) (5)	U/L	87.1	69.6 – 104	784	627 – 941	µmol/L/sec	1.45	1.16 – 1.74	13.1	10.5 – 15.7
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (IFCC 2002) (5)	U/L	39.2	31.4 – 47.1	214	171 – 257	µmol/L/sec	0.655	0.524 – 0.786	3.57	2.86 – 4.29
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (5)	U/L	35.5	28.4 – 42.6	190	152 – 227	µmol/L/sec	0.593	0.475 – 0.712	3.17	2.53 – 3.80
Bilirubin, Direct (Diazotization)	mg/dL	0.296	0.237 – 0.355	1.14	0.915 – 1.37	µmol/L	5.06	4.05 – 6.07	19.6	15.6 – 23.5
Bilirubin, Direct (Diazotization) (Europe/Asia)	mg/dL	0.311	0.249 – 0.374	1.40	1.12 – 1.68	µmol/L	5.32	4.26 – 6.39	23.9	19.2 – 28.7
Bilirubin, Total (Diazonium Ion, Blanked (Roche)) (BILTS)	mg/dL	1.02	0.815 – 1.22	3.97	3.18 – 4.77	µmol/L	17.4	13.9 – 20.9	67.9	54.3 – 81.5
C3 Complement (Immunoturbidimetric) (1)	mg/dL	151	121 – 182	97.3	77.8 – 117	g/L	1.51	1.21 – 1.82	0.973	0.778 – 1.17
Calcium (o-cresolphthalein complexone)	mg/dL	8.76	7.89 – 9.64	12.6	11.3 – 13.8	mmol/L	2.19	1.97 – 2.41	3.15	2.83 – 3.46
Carbamazepine (Fluorescence Polarization-Roche)	µg/mL	2.95	2.36 – 3.54	16.5	13.2 – 19.8	µmol/L	12.5	9.98 – 15.0	69.8	55.8 – 83.8
Carbon Dioxide (CO <sub>2</sub> ) (Enzymatic)	mEq/L	32.4	26.0 – 38.9	17.1	13.7 – 20.6	mmol/L	32.4	26.0 – 38.9	17.1	13.7 – 20.6
Chloride (ISE Indirect)	mEq/L	102	91.9 – 112	86.5	77.9 – 95.2	mmol/L	102	91.9 – 112	86.5	77.9 – 95.2
Cholesterol, High Density Lipoprotein (HDL) (Direct measure-PEG) (3)	mg/dL	56.0	44.8 – 67.2	23.9	19.1 – 28.6	mmol/L	1.45	1.16 – 1.74	0.618	0.495 – 0.742
Cholesterol, Low Density Lipoprotein (LDL) (Direct measure)	mg/dL	109	87.5 – 131	50.3	40.3 – 60.4	mmol/L	2.83	2.27 – 3.40	1.30	1.04 – 1.56
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	237	190 – 285	96.1	76.9 – 115	mmol/L	6.14	4.91 – 7.37	2.49	1.99 – 2.99
Creatine Kinase (CK) (NAC activated) (5)	U/L	118	94.1 – 141	404	323 – 484	µmol/L/sec	1.96	1.57 – 2.36	6.74	5.39 – 8.09
Creatine Kinase (CK) (NAC activated) (IFCC 2002) (5)	U/L	120	95.6 – 143	418	334 – 501	µmol/L/sec	2.00	1.60 – 2.40	6.98	5.58 – 8.37
Creatinine (Alkaline picrate-kinetic, IFCC-IDMS Standardized) (CREJ2)	mg/dL	2.03	1.62 – 2.43	5.25	4.20 – 6.30	µmol/L	179	143 – 215	464	372 – 557
Creatinine (Enzymatic) (CREP2)	mg/dL	1.75	1.40 – 2.10	5.24	4.19 – 6.29	µmol/L	155	124 – 186	463	371 – 556
Digoxin (KIMS)	ng/mL	1.20	0.962 – 1.44	3.09	2.47 – 3.71	nmol/L	1.54	1.23 – 1.85	3.95	3.16 – 4.74
Gamma Glutamyltransferase (GGT) (IFCC 2002) (5)	U/L	58.3	46.7 – 70.0	147	118 – 177	µmol/L/sec	0.974	0.780 – 1.17	2.46	1.97 – 2.95
Gamma Glutamyltransferase (GGT) (Szasz) (5)	U/L	52.6	42.1 – 63.1	133	107 – 160	µmol/L/sec	0.878	0.702 – 1.05	2.23	1.78 – 2.67
Gentamicin (Fluorescence Polarization-Roche)	µg/mL	1.50	1.20 – 1.80	9.60	7.68 – >10.0	µmol/L	3.14	2.51 – 3.76	20.1	16.1 – >20.9
Glucose (Hexokinase)	mg/dL	87.8	70.2 – 105	275	220 – 330	mmol/L	4.87	3.90 – 5.85	15.3	12.2 – 18.3
Haptoglobin (Immunoturbidimetric) (1)	mg/dL	111	89.1 – 134	73.4	58.7 – 88.1	g/L	1.11	0.891 – 1.34	0.734	0.587 – 0.881
Immunoglobulin A (IgA) (Immunoturbidimetric) (1)	mg/dL	193	154 – 231	102	81.5 – 122	g/L	1.93	1.54 – 2.31	1.02	0.815 – 1.22
Immunoglobulin G (IgG) (Immunoturbidimetric) (1)	mg/dL	928	743 – 1114	615	492 – 738	g/L				

	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
ROCHE COBAS INTEGRA (continued)										
Iron (Ferrozine-no deproteinization)	µg/dL	240	192 – 288	64.7	51.7 – 77.6	µmol/L	43.0	34.4 – 51.6	11.6	9.26 – 13.9
Lactate (Lactic Acid) (Enzymatic)	mg/dL	39.2	31.3 – 47.0	10.3	8.27 – 12.4	mmol/L	4.35	3.48 – 5.22	1.15	0.918 – 1.38
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (5)	U/L	165	132 – 198	360	288 – 432	µmol/U/sec	2.76	2.21 – 3.31	6.01	4.81 – 7.21
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (IFCC 2002) (5)	U/L	171	137 – 205	370	296 – 444	µmol/L/sec	2.86	2.29 – 3.43	6.17	4.94 – 7.41
Lipase (Enzymatic, colorimetric) (5)	U/L	42.2	33.7 – 50.6	72.4	57.9 – 86.9	µmol/L/sec	0.705	0.564 – 0.845	1.21	0.967 – 1.45
Lithium (ISE Direct)	mEq/L	\$		\$		mmol/L	\$		\$	
Magnesium (Chlorophosphonazo III)	mg/dL	1.81	1.54 – 2.08	3.93	3.34 – 4.51	mmol/L	0.744	0.632 – 0.856	1.61	1.37 – 1.86
Phenobarbital (Fluorescence Polarization-Roche)	µg/mL	12.6	10.1 – 15.1	45.8	36.6 – 54.9	µmol/L	54.2	43.3 – 65.0	197	158 – 237
Phenytoin (Fluorescence Polarization-Roche)	µg/mL	10.6	8.46 – 12.7	21.0	16.8 – 25.2	µmol/L	41.9	33.5 – 50.3	83.2	66.6 – 99.9
Phosphorus (Phosphomolybdate-UV)	mg/dL	3.48	3.13 – 3.83	7.57	6.81 – 8.32	mmol/L	1.13	1.01 – 1.24	2.44	2.20 – 2.69
Potassium (ISE Indirect)	mEq/L	3.80	3.42 – 4.18	6.13	5.52 – 6.75	mmol/L	3.80	3.42 – 4.18	6.13	5.52 – 6.75
Protein, Total (Biuret, serum blank, end point)	g/dL	6.50	5.20 – 7.80	4.19	3.36 – 5.03	g/L	65.0	52.0 – 78.0	41.9	33.6 – 50.3
Salicylate (Enzymatic)	mg/dL	6.22	4.97 – 7.46	16.8	13.4 – 20.1	mmol/L	0.450	0.360 – 0.540	1.21	0.971 – 1.46
Sodium (ISE Indirect)	mEq/L	139	125 – 153	122	110 – 134	mmol/L	139	125 – 153	122	110 – 134
Theophylline (Fluorescence Polarization-Roche)	µg/mL	9.06	7.25 – 10.9	23.5	18.8 – 28.2	µmol/L	50.3	40.2 – 60.4	130	104 – 156
Tobramycin (Fluorescence Polarization-Roche)	µg/mL	5.48	4.39 – 6.58	1.13	0.907 – 1.36	µmol/L	11.7	9.39 – 14.1	2.43	1.94 – 2.91
Transferrin (Immunoturbidimetric) (1)	mg/dL	282	226 – 339	184	147 – 221	g/L	2.82	2.26 – 3.39	1.84	1.47 – 2.21
Triglycerides (Enzymatic, Endpoint)	mg/dL	188	151 – 226	86.2	69.0 – 103	mmol/L	2.13	1.70 – 2.55	0.975	0.780 – 1.17
Urea Nitrogen (Urease, UV) (8)	mg/dL	15.5	12.4 – 18.6	43.9	35.1 – 52.7	mmol/L	5.54	4.43 – 6.65	15.7	12.5 – 18.8
Uric Acid (Uricase, colorimetric)	mg/dL	4.63	3.71 – 5.56	9.88	7.91 – 11.9	µmol/L	276	220 – 331	588	470 – 705
Valproic Acid (Fluorescence Polarization-Roche)	µg/mL	35.0	28.0 – 42.0	137	110 – >150	µmol/L	243	194 – 291	950	760 – >1040
Vancomycin (Fluorescence Polarization-Roche)	µg/mL	7.61	6.09 – 9.13	42.6	34.1 – 51.1	µmol/L	5.25	4.20 – 6.30	29.4	23.5 – 35.3
ROCHE HITACHI / MODULAR										
Acid Phosphatase, Total (a-naphthyl phosphate, kinetic) (5)	U/L	\$		\$		µmol/L/sec	\$		\$	
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (IFCC 2002) (5)	U/L	35.8	28.6 – 43.0	106	84.8 – 127	µmol/L/sec	0.598	0.478 – 0.717	1.77	1.42 – 2.12
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (5)	U/L	37.7	30.1 – 45.2	106	84.9 – 127	µmol/U/sec	0.629	0.503 – 0.755	1.77	1.42 – 2.13
Albumin (Bromocresol green)	g/dL	4.44	3.55 – 5.32	2.98	2.38 – 3.57	g/L	44.4	35.5 – 53.2	29.8	23.8 – 35.7
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (5)	U/L	92.0	73.6 – 110	444	356 – 533	µmol/L/sec	1.54	1.23 – 1.84	7.42	5.94 – 8.91
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (IFCC 2002) (5)	U/L	88.8	71.0 – 107	431	344 – 517	µmol/L/sec	1.48	1.19 – 1.78	7.19	5.75 – 8.63
Alpha Hydroxybutyrate Dehydrogenase-HBDH (Std. Method opt.) (1) (5)	U/L	146	117 – 175	399	319 – 479	µmol/L/sec	2.44	1.95 – 2.92	6.67	5.34 – 8.00
Amylase (G7 PNP, Blocked) (5)	U/L	86.8	69.4 – 104	783	626 – 939	µmol/L/sec	1.45	1.16 – 1.74	13.1	10.5 – 15.7
Amylase (G7 PNP, Blocked) (Europe/Asia) (5)	U/L	\$		\$		µmol/L/sec	\$		\$	
Amylase, Pancreatic (G7 PNP, Blocked) (5)	U/L	\$		\$		µmol/L/sec	\$		\$	
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (IFCC 2002) (5)	U/L	37.7	30.1 – 45.2	194	155 – 233	µmol/L/sec	0.629	0.503 – 0.755	3.24	2.59 – 3.89
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (5)	U/L	37.8	30.3 – 45.4	190	152 – 228	µmol/L/sec	0.632	0.505 – 0.758	3.18	2.54 – 3.81
Bilirubin, Direct (Diazotization)	mg/dL	0.300	0.240 – 0.360	1.00	0.800 – 1.20	µmol/L	5.13	4.10 – 6.16	17.1	13.7 – 20.5
Bilirubin, Direct (Diazotization) (Europe/Asia)	mg/dL	0.382	0.306 – 0.458	1.76	1.41 – 2.11	µmol/L	6.53	5.23 – 7.84	30.1	24.1 – 36.1
Bilirubin, Total (Diazonium Ion, Blanked (Roche)) (Liquid)	mg/dL	1.07	0.856 – 1.28	4.22	3.37 – 5.06	µmol/L	18.3	14.6 – 22.0	72.1	57.7 – 86.5
Calcium (o-cresolphthalein complexone)	mg/dL	9.16	8.24 – 10.1	12.3	11.1 – 13.6	mmol/L	2.29	2.06 – 2.52	3.08	2.78 – 3.39
Carbon Dioxide (CO <sub>2</sub> ) (Enzymatic)	mEq/L	33.9	27.1 – 40.7	17.9	14.3 – 21.5	mmol/L	33.9	27.1 – 40.7	17.9	14.3 – 21.5
Chloride (ISE Indirect)	mEq/L	101	90.9 – 111	82.5	74.3 – 90.8	mmol/L	101	90.9 – 111	82.5	74.3 – 90.8
Chloride (ISE Indirect) (Europe/Asia)	mEq/L	104	94.0 – 115	83.1	74.8 – 91.4	mmol/L	104	94.0 – 115	83.1	74.8 – 91.4
Cholesterol, High Density Lipoprotein (HDL) (Direct measure-PEG) (HDLG3) (3)	mg/dL	52.9	42.3 – 63.5	23.6	18.9 – 28.3	mmol/L	1.37	1.10 – 1.64	0.611	0.489 – 0.733
Cholesterol, Low Density Lipoprotein (LDL) (Direct measure)	mg/dL	128	102 – 153	62.6	50.1 – 75.2	mmol/L	3.31	2.65 – 3.97	1.62	1.30 – 1.95
Cholesterol, Total (CHOD/PAP)	mg/dL	242	194 – 291	98.7	79.0 – 118	mmol/L	6.27	5.02 – 7.53	2.56	2.05 – 3.07
Creatine Kinase (CK) (NAC activated) (5)	U/L	130	104 – 156	415	332 – 498	µmol/L/sec	2.18	1.74 – 2.61	6.93	5.54 – 8.31
Creatine Kinase (CK) (NAC activated) (IFCC 2002) (5)	U/L	134	107 – 160	420	336 – 504	µmol/L/sec	2.23	1.78 – 2.68	7.01	5.61 – 8.42
Creatinine (Alkaline picrate-kinetic rate blanked) (CREJ2)	mg/dL	2.46	1.97 – 2.96	5.86	4.69 – 7.04	µmol/L	218	174 – 261	518	415 – 622
Creatinine (Alkaline picrate-kinetic rate blanked) (CREJ2) (Europe/Asia)	mg/dL	2.39	1.91 – 2.87	5.83	4.67 – 7.00	µmol/L	212	169 – 254	516	412 – 619
Creatinine (Enzymatic) (CREP2)	mg/dL	1.79	1.43 – 2.15	5.41	4.33 – 6.49	µmol/L	158	126 – 190	478	383 – 574
Digoxin (Immunoturbidimetric)	ng/mL	\$		\$		nmol/L	\$		\$	
Gamma Glutamyltransferase (GGT) (5)	U/L	54.2	43.3 – 65.0	138	110 – 165	µmol/L/sec	0.905	0.724 – 1.09	2.30	1.84 – 2.76
Gamma Glutamyltransferase (GGT) (IFCC 2002) (5)	U/L	62.3	49.8 – 74.8	158	126 – 190	µmol/L/sec	1.04	0.832 – 1.25	2.64	2.11 – 3.17
Gentamicin (EIA)	µg/mL	0.518	0.415 – 0.622	5.92	4.73 – 7.10	µmol/L	1.08	0.867 – 1.30	12.4	9.90 – 14.8
Glucose (Hexokinase)	mg/dL	85.6	68.5 – 103	276	220 – 331	mmol/L	4.75	3.80 – 5.70	15.3	12.2 – 18.3
Glutamate Dehydrogenase (GLDH) (Standard method) (1) (5)	U/L	13.6	10.9 – 16.3	34.5	27.6 – 41.4	µmol/L/sec	0.227	0.182 – 0.273	0.577	0.461 – 0.692
Haptoglobin (Immunoturbidimetric) (1)	mg/dL	115	92.2 – 138	74.8	59.8 – 89.8	g/L	1.15	0.922 – 1.38	0.748	0.598 – 0.898
Immunoglobulin A (IgA) (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	181	145 – 217	115	92.3 – 138	g/L	1.81	1.45 – 2.17	1.15	0.923 – 1.38
Immunoglobulin G (IgG) (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	865	692 – 1038	560	448 – 672	g/L	8.65	6.92 – 10.4	5.60	4.48 – 6.72
Immunoglobulin M (IgM) (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	86.9	69.5 – 104	52.4	41.9 – 62.8	g/L	0.869	0.695 – 1.04	0.524	0.419 – 0.628
Iron (Ferrozine-no deproteinization)	µg/dL	238	190 – 286	66.6	53.3 – 80.0	µmol/L	42.6	34.1 – 51.1	11.9	9.54 – 14.3
Iron-Binding Capacity, Total (TIBC) (Calculated) (1)	µg/dL	403	322 – 484	227	181 – 272	µmol/L	72.1	57.6 – 86.6	40.6	32.5 – 48.7
Iron-Binding Capacity, Unsaturated (UIBC) (Ferrozine) (1)	µg/dL	165	132 – 198	160	128 – 192	µmol/L	29.5	23.6 – 35.4	28.6	22.9 – 34.4
Lactate (Lactic Acid) (Enzymatic)	mg/dL	37.8	30.3 – 45.4	9.91	7.93 – 11.9	mmol/L	4.20	3.36 – 5.04	1.10	0.880 – 1.32
Lactate (Lactic Acid) (Enzymatic) (Europe/Asia)	mg/dL	\$		\$		mmol/L	\$		\$	
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (5)	U/L	170	136 – 204	370	296 – 444	µmol/L/sec	2.83	2.27 – 3.40	6.18	4.94 – 7.41
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (IFCC 2002) (5)	U/L	167	134 – 200	364	291 – 436	µmol/U/sec	2.79	2.23 – 3.34	6.07	4.86 – 7.29
Lipase (Enzymatic, colorimetric) (5)	U/L	40.1	32.1 – 48.1	61.4	49.1 – 73.7	µmol/L/sec	0.669	0.535 – 0.803	1.03	0.821 – 1.23
Magnesium (Xylydyl blue)	mg/dL	1.90	1.61 – 2.18	4.10	3.49 – 4.72	mmol/L	0.781	0.664 – 0.898	1.69	1.43 – 1.94
Phenobarbital (EIA)	µg/mL	\$		\$		µmol/L	\$		\$	
Phenytoin (EIA)	µg/mL	\$		\$		µmol/L	\$		\$	
Phosphorus (Phosphomolybdate-UV)	mg/dL	3.35	3.02 – 3.69	7.40	6.66 – 8.14	mmol/L	1.08	0.975 – 1.19	2.39	2.15 – 2.63
Potassium (ISE Indirect)	mEq/L	3.75	3.38 – 4.13	5.99	5.39 – 6.59	mmol/L	3.75	3.38 – 4.13	5.99	5.39 – 6.59
Potassium (ISE Indirect) (Europe/Asia)	mEq/L	3.90	3.51 – 4.29	6.07	5.46 – 6.68	mmol/L	3.90	3.51 – 4.29	6.07	5.46 – 6.68
Protein, Total (Biuret, serum blank, end point)	g/dL	6.52	5.22 – 7.83	4.19	3.35 – 5.03	g/L	65.2	52.2 – 78.3	41.9	33.5 – 50.3
Salicylate (Colorimetric)	mg/dL	8.01	6.41 – 9.61	18.7	15.0 – 22.5	mmol/L	0.580	0.464 – 0.696	1.35	1.08 – 1.63
Sodium (ISE Indirect)	mEq/L	145	130 – 159	123	110 – 135	mmol/L	145	130 – 159	123	110 – 135
Sodium (ISE Indirect) (Europe/Asia)	mEq/L	147	133 – 162	125	113 – 138	mmol/L	147	133 – 162	125	113 – 138
Theophylline (EIA)	µg/mL	\$		\$		µmol/L	\$		\$	
Transferrin (Immunoturbidimetric) (1)	mg/dL	270	216 – 324	180	144 – 215	g/L	2.70	2.16 – 3.24	1.80	1.44 – 2.15
Triglycerides (GPO/PAP)	mg/dL	192	153 – 230	92.6	74.1 – 111	mmol/L	2.17	1.73 – 2.60	1.05	0.837 – 1.26
Urea (Urease, UV) (8)	mg/dL	34.2	27.4 – 41.1	94.5	75.6 – 113	mmol/L	5.70	4.56 – 6.84	15.7	12.6 – 18.9
Urea Nitrogen (Urease, UV) (8)	mg/dL	16.0	12.8 – 19.2	44.1	35.2 – 52.9	mmol/L				

	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
ROCHE / HITACHI COBAS C SYSTEMS										
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (IFCC 2002) (5)	U/L	36.5	29.2 – 43.8	108	86.8 – 130	µmol/L/sec	0.610	0.488 – 0.732	1.81	1.45 – 2.17
Alanine Aminotransferase (ALT/SGPT) (UV without P5P) (5)	U/L	35.6	28.5 – 42.8	105	83.6 – 125	µmol/L/sec	0.595	0.476 – 0.714	1.75	1.40 – 2.09
Albumin (Bromcresol green)	g/dL	4.26	3.41 – 5.12	2.86	2.29 – 3.44	g/L	42.6	34.1 – 51.2	28.6	22.9 – 34.4
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (5)	U/L	96.1	76.9 – 115	467	373 – 560	µmol/L/sec	1.61	1.28 – 1.93	7.79	6.23 – 9.35
Amylase (G7 PNP, Blocked) (5)	IU/L	85.6	68.5 – 103	768	615 – 922	µmol/L/sec	1.43	1.14 – 1.72	12.8	10.3 – 15.4
Amylase, Pancreatic (G7 PNP, Blocked) (5)	U/L	56.3	45.1 – 67.6	751	601 – 902	µmol/L/sec	0.941	0.753 – 1.13	12.5	10.0 – 15.1
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (IFCC 2002) (5)	U/L	38.0	30.4 – 45.6	207	166 – 248	µmol/L/sec	0.634	0.507 – 0.761	3.46	2.77 – 4.15
Aspartate Aminotransferase (AST/SGOT) (UV without P5P) (5)	U/L	35.1	28.1 – 42.2	186	149 – 224	µmol/L/sec	0.587	0.469 – 0.704	3.11	2.49 – 3.73
Bilirubin, Direct (Diazotization)	mg/dL	0.353	0.283 – 0.424	1.17	0.933 – 1.40	µmol/L	6.04	4.83 – 7.25	19.9	16.0 – 23.9
Bilirubin, Total (Diazonium Ion, Blanked (Roche)) (BILTS)	mg/dL	1.01	0.804 – 1.21	4.00	3.20 – 4.80	µmol/L	17.2	13.7 – 20.6	68.5	54.8 – 82.2
Calcium (o-cresolphthalein complexone)	mg/dL	8.99	8.09 – 9.89	12.7	11.4 – 14.0	mmol/L	2.25	2.02 – 2.47	3.17	2.85 – 3.49
Carbamazepine (EIA)	µg/mL	0.668	<0.500 – 0.802	10.4	8.29 – 12.4	µmol/L	2.83	<2.12 – 3.39	43.8	35.0 – 52.6
Carbon Dioxide (CO2) (Enzymatic)	mEq/L	34.2	27.4 – 41.1	17.8	14.2 – 21.3	mmol/L	34.2	27.4 – 41.1	17.8	14.2 – 21.3
Chloride (ISE Indirect)	mEq/L	102	91.6 – 112	81.9	73.7 – 90.1	mmol/L	102	91.6 – 112	81.9	73.7 – 90.1
Cholesterol, High Density Lipoprotein (HDL) (Direct measure-PEG) (3)	mg/dL	53.6	42.9 – 64.3	23.0	18.4 – 27.6	mmol/L	1.39	1.11 – 1.67	0.597	0.477 – 0.716
Cholesterol, Low Density Lipoprotein (LDL) (Direct measure)	mg/dL	126	101 – 151	61.1	48.9 – 73.3	mmol/L	3.27	2.61 – 3.92	1.58	1.27 – 1.90
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	247	197 – 296	102	81.9 – 123	mmol/L	6.38	5.11 – 7.66	2.65	2.12 – 3.18
Creatine Kinase (CK) (NAC activated) (IFCC 2002) (5)	U/L	129	103 – 155	421	337 – 505	µmol/L/sec	2.15	1.72 – 2.58	7.03	5.62 – 8.43
Creatinine (Enzymatic) (CREP2)	mg/dL	1.90	1.52 – 2.28	5.55	4.44 – 6.66	µmol/L	168	134 – 202	490	392 – 589
Creatinine (Rate blanked and compensated) (CREJ2)	mg/dL	2.11	1.69 – 2.53	5.50	4.40 – 6.60	µmol/L	186	149 – 224	486	389 – 583
Digoxin (KIMS (Roche))	ng/mL	1.13	0.906 – 1.36	3.04	2.43 – 3.65	nmol/L	1.45	1.16 – 1.74	3.89	3.11 – 4.67
Gamma Glutamyltransferase (GGT) (IFCC 2002) (5)	U/L	58.4	46.7 – 70.1	146	117 – 175	µmol/L/sec	0.975	0.780 – 1.17	2.44	1.95 – 2.93
Glucose (Hexokinase)	mg/dL	86.9	69.5 – 104	275	220 – 330	mmol/L	4.82	3.86 – 5.79	15.2	12.2 – 18.3
Haptoglobin (Immunoturbidimetric) (1)	mg/dL	120	96.1 – 144	78.8	63.0 – 94.6	g/L	1.20	0.961 – 1.44	0.788	0.630 – 0.946
Immunoglobulin A (IgA) (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	180	144 – 216	112	89.3 – 134	g/L	1.80	1.44 – 2.16	1.12	0.893 – 1.34
Immunoglobulin G (IgG) (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	838	671 – 1006	556	445 – 668	g/L	8.38	6.71 – 10.1	5.56	4.45 – 6.68
Immunoglobulin M (IgM) (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	86.8	69.4 – 104	54.1	43.2 – 64.9	g/L	0.868	0.694 – 1.04	0.541	0.432 – 0.649
Iron (Ferrozine-no deproteination)	µg/dL	238	190 – 285	66.6	53.3 – 79.9	µmol/L	42.5	34.0 – 51.1	11.9	9.53 – 14.3
Iron-Binding Capacity, Total (TIBC) (Calculated) (1)	µg/dL	404	323 – 484	224	179 – 268	µmol/L	72.2	57.8 – 86.7	40.0	32.0 – 48.0
Iron-Binding Capacity, Unsaturated (UIBC) (Ferrozine) (1)	µg/dL	161	127 – 195	155	124 – 186	µmol/L	28.9	22.8 – 34.9	27.7	22.1 – 33.2
Lactate (Lactic Acid) (Enzymatic)	mg/dL	37.1	29.7 – 44.5	9.76	7.81 – 11.7	mmol/L	4.12	3.30 – 4.94	1.08	0.867 – 1.30
Lactate Dehydrogenase (LDH) (IFCC 2002) (Gen. 2) (5)	U/L	168	134 – 201	358	286 – 429	µmol/L/sec	2.80	2.24 – 3.36	5.97	4.78 – 7.17
Lipase (Enzymatic, colorimetric) (5)	U/L	39.9	32.0 – 47.9	59.4	47.5 – 71.3	µmol/L/sec	0.667	0.534 – 0.800	0.993	0.794 – 1.19
Lithium (Colorimetric)	mEq/L	0.645	0.567 – 0.722	1.92	1.72 – 2.11	mmol/L	0.645	0.567 – 0.722	1.92	1.72 – 2.11
Magnesium (Chlorophosphonazo III)	mg/dL	1.84	1.56 – 2.11	3.83	3.25 – 4.40	mmol/L	0.755	0.642 – 0.868	1.57	1.34 – 1.81
Phenobarbital (KIMS (Roche))	µg/mL	11.6	9.31 – 14.0	45.5	36.4 – 54.6	µmol/L	50.2	40.1 – 60.2	196	157 – 235
Phenytoin (KIMS (Roche))	µg/mL	10.6	8.46 – 12.7	22.1	17.7 – 26.5	µmol/L	41.9	33.5 – 50.3	87.5	70.0 – 105
Phosphorus (Phosphomolybdate-UV)	mg/dL	3.43	3.09 – 3.78	7.51	6.76 – 8.26	mmol/L	1.11	0.998 – 1.22	2.42	2.18 – 2.67
Potassium (ISE Indirect)	mEq/L	3.79	3.41 – 4.17	5.99	5.39 – 6.59	mmol/L	3.79	3.41 – 4.17	5.99	5.39 – 6.59
Protein, Total (Biuret, serum blank, end point)	g/dL	6.53	5.22 – 7.83	4.20	3.36 – 5.04	g/L	65.3	52.2 – 78.3	42.0	33.6 – 50.4
Salicylate (Enzymatic)	mg/dL	6.09	4.87 – 7.30	16.2	13.0 – 19.5	mmol/L	0.441	0.352 – 0.529	1.18	0.941 – 1.41
Sodium (ISE Indirect)	mEq/L	144	130 – 158	123	110 – 135	mmol/L	144	130 – 158	123	110 – 135
Theophylline (KIMS (Roche))	µg/mL	8.76	7.01 – 10.5	23.3	18.6 – 28.0	µmol/L	48.6	38.9 – 58.4	129	103 – 155
Transferrin (Immunoturbidimetric) (Tina-Quant) (1)	mg/dL	266	213 – 319	172	138 – 206	g/L	2.66	2.13 – 3.19	1.72	1.38 – 2.06
Triglycerides (GPO/PAP)	mg/dL	198	158 – 237	93.8	75.0 – 113	mmol/L	2.23	1.79 – 2.68	1.06	0.848 – 1.27
Urea Nitrogen (Urease, UV) (8)	mg/dL	15.9	12.7 – 19.0	44.0	35.2 – 52.7	mmol/L	5.67	4.53 – 6.80	15.7	12.6 – 18.8
Uric Acid (Uricase, colorimetric)	mg/dL	4.64	3.71 – 5.56	9.68	7.74 – 11.6	µmol/L	276	221 – 331	576	461 – 691
Valproic Acid (EIA)	µg/mL	42.1	33.7 – 50.6	145	116 – >150	µmol/L	292	234 – 350	1006	805 – >1040
Vancomycin (EIA)	µg/mL	7.13	5.71 – 8.56	38.5	30.8 – 46.2	µmol/L	4.92	3.94 – 5.91	26.6	21.2 – 31.9
SIEMENS ADVIA CENTAUR CP										
Digoxin (Chemiluminescence) (DIG)	ng/mL	\$		\$		nmol/L	\$		\$	
T3 Total (Chemiluminescence) (T3)	ng/mL	▲		▲		nmol/L	▲		▲	
T4 Free (Chemiluminescence) (FT4) (1)	ng/dL	1.41	1.13 – 1.69	>12.0		pmol/L	18.2	14.5 – 21.8	>155	
T4 Total (Chemiluminescence) (T4)	µg/dL	\$		\$		nmol/L	\$		\$	
Thyroid Stimulating Hormone (TSH) (TSH3)	µIU/mL	▲		▲		mIU/L	▲		▲	
Vancomycin (Chemiluminescence) (VANC)	µg/mL	\$		\$		µmol/L	\$		\$	
SIEMENS ADVIA CENTAUR / CENTAUR XP										
Carbamazepine (Chemiluminescence) (CARB)	µg/mL	2.95	2.36 – 3.53	16.2	12.9 – >18.0	µmol/L	12.5	9.97 – 14.9	68.4	54.7 – >76.1
Cortisol (Chemiluminescence) (COR)	µg/dL	9.72	7.78 – 11.7	44.3	35.4 – 53.1	nmol/L	268	215 – 322	1222	977 – 1466
Digoxin (Chemiluminescence) (DIG)	ng/mL	1.27	1.01 – 1.52	3.22	2.57 – 3.86	nmol/L	1.62	1.30 – 1.94	4.12	3.29 – 4.94
Gentamicin (Chemiluminescence) (GENT)	µg/mL	1.58	1.27 – 1.90	10.4	8.33 – >12.0	µmol/L	3.31	2.65 – 3.97	21.8	17.4 – >25.1
Phenobarbital (Chemiluminescence) (PHNB)	µg/mL	13.9	11.1 – 16.7	50.4	40.4 – 60.5	µmol/L	60.0	48.0 – 72.0	217	174 – 261
Phenytoin (Chemiluminescence) (PHTN)	µg/mL	12.6	10.1 – 15.1	27.3	21.8 – 32.7	µmol/L	49.8	39.8 – 59.7	108	86.4 – 130
T3 Total (Chemiluminescence) (T3)	ng/mL	0.939	0.751 – 1.13	4.40	3.52 – 5.28	nmol/L	1.45	1.16 – 1.73	6.78	5.42 – 8.13
T3 Uptake/T-Uptake (Chemiluminescence) (TUp)	% Uptake	32.0	25.6 – 38.4	66.7	53.3 – 80.0	% Uptake	32.0	25.6 – 38.4	66.7	53.3 – 80.0
T4 Free (Chemiluminescence) (FT4) (1)	ng/dL	1.42	1.14 – 1.71	>12.0		pmol/L	18.4	14.7 – 22.1	>155	
T4 Total (Chemiluminescence) (T4)	µg/dL	6.83	5.47 – 8.20	23.1	18.5 – 27.8	nmol/L	88.1	70.5 – 106	299	239 – 358
Theophylline (Chemiluminescence) (THEO2)	µg/mL	9.12	7.29 – 10.9	22.5	18.0 – 27.0	µmol/L	50.6	40.5 – 60.7	125	99.8 – 150
Thyroid Stimulating Hormone (TSH) (TSH)	µIU/mL	1.70	1.36 – 2.03	18.8	15.1 – 22.6	mIU/L	1.70	1.36 – 2.03	18.8	15.1 – 22.6
Thyroid Stimulating Hormone (TSH) (TSH3)	µIU/mL	1.43	1.15 – 1.72	18.6	14.9 – 22.4	mIU/L	1.43	1.15 – 1.72	18.6	14.9 – 22.4
Tobramycin (Chemiluminescence) (TOBR)	µg/mL	6.15	4.92 – 7.38	1.43	1.15 – 1.72	µmol/L	13.2	10.5 – 15.8	3.06	2.45 – 3.68
Valproic Acid (Chemiluminescence) (VALP)	µg/mL	34.9	27.9 – 41.9	135	108 – >150	µmol/L	242	193 – 290	932	746 – >1040
Vancomycin (Chemiluminescence) (VANC)	µg/mL	4.38	3.51 – 5.26	25.1	20.1 – 30.1	µmol/L	3.02	2.42 – 3.63	17.3	13.9 – 20.8
SIEMENS ADVIA CHEMISTRY SYSTEMS										
Acetaminophen (Enzymatic) (ACET)	µg/mL	13.6	10.9 – 16.3	88.7	70.9 – 106	µmol/L	89.9	71.9 – 108	586	469 – 703
Acid Phosphatase, Non-Prostatic (Azo dye colorimetric rate) (ACP NP) (5)	U/L	7.81	5.07 – 10.5	5.74	3.73 – 7.75	µmol/L/sec	0.130	0.085 – 0.176	0.096	0.062 – 0.129
Acid Phosphatase, Total (Azo dye colorimetric rate) (ACP T) (5)	U/L	29.6	19.3 – 40.0	43.3	28.1 – 58.4	µmol/L/sec	0.495	0.321 – 0.668	0.723	0.470 – 0.976
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (ALTPSP, ALTP_c) (5)	U/L									

	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
SIEMENS ADVIA CHEMISTRY SYSTEMS (continued)										
Calcium (Arsenazo III) (CA_2, CA_2c)	mg/dL	9.82	7.37 – 12.3	12.5	9.35 – 15.6	mmol/L	2.45	1.84 – 3.07	3.12	2.34 – 3.90
Calcium (o-cresolphthalein complexone) (CA, CA_c)	mg/dL	9.30	6.97 – 11.6	12.4	9.33 – 15.6	mmol/L	2.32	1.74 – 2.91	3.11	2.33 – 3.89
Carbamazepine (EIA) (CARB_2)	µg/mL	3.16	2.37 – 3.95	14.1	11.3 – 16.9	µmol/L	13.4	10.0 – 16.7	59.7	47.8 – 71.7
Carbon Dioxide (CO2) (Enzymatic) (CO2_L)	mEq/L	36.6	29.3 – 43.9	19.1	15.3 – 22.9	mmol/L	36.6	29.3 – 43.9	19.1	15.3 – 22.9
Chloride (ISE Indirect) (CL)	mEq/L	101	91.2 – 111	84.1	75.7 – 92.5	mmol/L	101	91.2 – 111	84.1	75.7 – 92.5
Cholesterol, High Density Lipoprotein (HDL) (Direct measure) (DHDL) (3)	mg/dL	60.8	48.6 – 72.9	15.8	12.6 – 18.9	mmol/L	1.57	1.26 – 1.89	0.409	0.327 – 0.491
Cholesterol, Low Density Lipoprotein (LDL) (Direct measure) (LDL)	mg/dL	115	92.2 – 138	46.6	37.3 – 56.0	mmol/L	2.98	2.39 – 3.58	1.21	0.966 – 1.45
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase) (CHOL_c, CHOL_2)	mg/dL	240	192 – 287	105	84.2 – 126	mmol/L	6.20	4.96 – 7.44	2.73	2.18 – 3.27
Cholinesterase (Butyrylthiocholine (Trinder)) (CHE) (1) (5)	U/L	4773	3818 – 5727	1766	1412 – 2119	µmol/L/sec	79.7	63.8 – 95.6	29.5	23.6 – 35.4
Creatine Kinase (CK) (NAC activated) (CKNAC) (5)	U/L	125	100 – 150	387	309 – 464	µmol/L/sec	2.09	1.67 – 2.51	6.45	5.16 – 7.75
Creatine Kinase (CK) (NAC activated) (IFCC 2002) (CKNAC) (5)	U/L	129	103 – 155	396	317 – 476	µmol/L/sec	2.16	1.72 – 2.59	6.62	5.30 – 7.95
Creatinine (Alkaline picrate-kinetic rate blanked) (CREA_2, CRE_2c)	mg/dL	2.47	1.98 – 2.97	5.89	4.71 – 7.07	µmol/L	219	175 – 262	521	416 – 625
Creatinine (Enzymatic) (ECRE_2)	mg/dL	1.81	1.45 – 2.18	5.52	4.41 – 6.62	µmol/L	160	128 – 193	488	390 – 585
Digoxin (Immunoturbidimetric) (DIG)	ng/mL	1.25	0.878 – 1.63	2.92	2.19 – 3.65	nmol/L	1.60	1.12 – 2.09	3.74	2.80 – 4.67
Gamma Glutamyltransferase (GGT) (IFCC 2002) (5)	U/L	60.8	48.6 – 72.9	156	125 – 188	µmol/L/sec	1.01	0.812 – 1.22	2.61	2.09 – 3.13
Gamma Glutamyltransferase (GGT) (Modified IFCC) (5)	U/L	58.9	47.1 – 70.6	151	120 – 181	µmol/L/sec	0.983	0.786 – 1.18	2.52	2.01 – 3.02
Gentamicin (EIA) (GENT_2)	µg/mL	1.81	1.36 – 2.26	8.78	7.03 – 10.5	µmol/L	3.78	2.84 – 4.72	18.4	14.7 – 22.0
Glucose (Glucose Oxidase, oxygen consumption) (GLUO)	mg/dL	85.1	68.0 – 102	263	210 – 315	mmol/L	4.72	3.78 – 5.66	14.6	11.7 – 17.5
Glucose (Hexokinase) (GLUH)	mg/dL	86.3	69.1 – 104	276	221 – 331	mmol/L	4.79	3.83 – 5.75	15.3	12.3 – 18.4
Immunoglobulin A (IgA) (Immunoturbidimetric) (IGA_2) (1)	mg/dL	220	176 – 264	155	124 – 186	g/L	2.20	1.76 – 2.64	1.55	1.24 – 1.86
Immunoglobulin G (IgG) (Immunoturbidimetric) (IGG_2) (1)	mg/dL	908	726 – 1090	596	477 – 715	g/L	9.08	7.26 – 10.9	5.96	4.77 – 7.15
Immunoglobulin M (IgM) (Immunoturbidimetric) (IGM_2) (1)	mg/dL	132	106 – 158	93.8	75.0 – 113	g/L	1.32	1.06 – 1.58	0.938	0.750 – 1.13
Iron (Ferrozine–no deproteinization) (IRON_2)	µg/dL	244	195 – 293	66.9	53.5 – 80.2	µmol/L	43.7	34.9 – 52.4	12.0	9.58 – 14.4
Iron-Binding Capacity, Total (TIBC) (Ferric chloride, alumina) (TIBC) (1)	µg/dL	379	303 – 455	250	200 – 300	µmol/L	67.9	54.3 – 81.5	44.8	35.8 – 53.7
Lactate (Lactic Acid) (Lactate to Pyruvate) (LAC)	mg/dL	37.2	29.8 – 44.6	8.50	6.80 – 10.2	mmol/L	4.13	3.30 – 4.95	0.943	0.754 – 1.13
Lactate Dehydrogenase (LDH) (Lactate/NAD) (IFCC 2002) (LDLP) (5)	U/L	172	137 – 206	378	302 – 454	µmol/L/sec	2.87	2.29 – 3.44	6.31	5.05 – 7.58
Lactate Dehydrogenase (LDH) (Lactate/NAD) (LDLP) (5)	U/L	172	138 – 206	378	302 – 454	µmol/L/sec	2.87	2.30 – 3.45	6.31	5.05 – 7.58
Lactate Dehydrogenase (LDH) (Pyruvate/NADH) (LDPL) (5)	U/L	279	223 – 335	761	609 – 913	µmol/L/sec	4.66	3.72 – 5.59	12.7	10.2 – 15.3
Lipase (Enzymatic, colorimetric) (LIP) (5)	U/L	45.9	35.3 – 56.5	94.6	75.6 – 113	µmol/L/sec	0.766	0.590 – 0.943	1.58	1.26 – 1.89
Lithium (Colorimetric) (LITH)	mEq/L	\$		\$		mmol/L	\$		\$	
Magnesium (Xylydyl blue) (MG, MG_c)	mg/dL	1.97	1.67 – 2.26	4.32	3.67 – 4.97	mmol/L	0.810	0.688 – 0.931	1.78	1.51 – 2.04
Phenobarbital (EIA) (PHNB_2)	µg/mL	11.3	9.05 – 13.6	46.4	37.2 – 55.7	µmol/L	48.8	39.0 – 58.5	200	160 – 240
Phenobarbital (Immunoturbidimetric) (PHNB)	µg/mL	12.9	10.3 – 15.5	47.6	38.1 – 57.1	µmol/L	55.6	44.4 – 66.6	205	164 – 246
Phenytoin (EIA) (PHNY_2)	µg/mL	12.0	9.61 – 14.4	25.6	20.5 – 30.7	µmol/L	47.6	38.1 – 57.1	101	81.0 – 121
Phenytoin (Immunoturbidimetric) (PHNY)	µg/mL	9.97	7.97 – 12.0	23.8	19.1 – 28.6	µmol/L	39.5	31.6 – 47.4	94.4	75.5 – 113
Phosphorus (Phosphomolybdate-UV) (IP, IP_c)	mg/dL	3.40	3.06 – 3.74	7.52	6.77 – 8.28	mmol/L	1.10	0.988 – 1.21	2.43	2.19 – 2.67
Potassium (ISE Indirect) (K)	mEq/L	3.98	3.58 – 4.38	6.20	5.58 – 6.82	mmol/L	3.98	3.58 – 4.38	6.20	5.58 – 6.82
Protein, Total (Biuret, no serum blank, end point) (TP, TP_c)	g/dL	6.81	5.45 – 8.17	4.47	3.58 – 5.37	g/L	68.1	54.5 – 81.7	44.7	35.8 – 53.7
Salicylate (Enzymatic) (SAL)	mg/dL	6.03	4.34 – 7.72	17.2	13.7 – 20.6	mmol/L	0.437	0.314 – 0.559	1.24	0.995 – 1.49
Sodium (ISE Indirect) (NA)	mEq/L	147	132 – 162	126	113 – 139	mmol/L	147	132 – 162	126	113 – 139
Theophylline (EIA) (THEO_2)	µg/mL	7.20	5.76 – 8.65	19.5	15.6 – 23.4	µmol/L	40.0	32.0 – 48.0	108	86.4 – 130
Tobramycin (EIA) (TOB_2)	µg/mL	5.97	4.78 – 7.16	1.54	1.15 – 1.92	µmol/L	12.8	10.2 – 15.3	3.30	2.46 – 4.11
Transferrin (Immunoturbidimetric) (TRF) (1)	mg/dL	269	215 – 323	181	145 – 218	g/L	2.69	2.15 – 3.23	1.81	1.45 – 2.18
Triglycerides (Enzymatic, Endpoint) (TRIG)	mg/dL	194	155 – 233	94.1	75.3 – 113	mmol/L	2.19	1.75 – 2.63	1.06	0.851 – 1.28
Urea Nitrogen (Urease, UV) (UN, UN_c) (8)	mg/dL	16.5	13.2 – 19.8	44.8	35.9 – 53.8	mmol/L	5.90	4.72 – 7.08	16.0	12.8 – 19.2
Uric Acid (Uricase, colorimetric) (UA, UA_c)	mg/dL	4.85	3.88 – 5.82	10.0	8.04 – 12.1	µmol/L	289	231 – 346	598	478 – 717
Valproic Acid (EIA) (VPA_2)	µg/mL	43.5	32.6 – 54.4	146	117 – 175	µmol/L	301	226 – 377	1009	808 – 1211
Vancomycin (EIA) (VANC_2)	µg/mL	5.83	4.37 – 7.29	28.7	22.9 – 34.4	µmol/L	4.02	3.02 – 5.03	19.8	15.8 – 23.7
SIEMENS BNA / BN100 / BNII / BN PROSPEC										
Alpha-1-Antitrypsin (Immunonephelometric, IFCC) (1)	mg/dL	170	136 – 204	108	86.3 – 129	g/L	1.70	1.36 – 2.04	1.08	0.863 – 1.29
Apolipoprotein A-I (Immunonephelometric, IFCC) (1)	mg/dL	139	111 – 166	76.4	61.1 – 91.6	g/L	1.39	1.11 – 1.66	0.763	0.611 – 0.916
Apolipoprotein B (Immunonephelometric, IFCC) (1)	mg/dL	70.7	56.5 – 84.8	38.8	31.1 – 46.6	g/L	0.707	0.565 – 0.848	0.388	0.311 – 0.466
C3 Complement (Immunonephelometric, IFCC) (1)	mg/dL	193	155 – 232	120	96.0 – 144	g/L	1.93	1.55 – 2.32	1.20	0.960 – 1.44
Ceruloplasmin (Immunonephelometric, IFCC) (1)	mg/dL	39.2	31.3 – 47.0	17.6	14.1 – 21.1	mg/L	392	313 – 470	176	141 – 211
Haptoglobin (Immunonephelometric, IFCC) (1)	mg/dL	134	107 – 161	83.8	67.1 – 101	g/L	1.34	1.07 – 1.61	0.838	0.671 – 1.01
Immunoglobulin A (IgA) (Immunonephelometric, IFCC) (1)	mg/dL	228	183 – 274	180	144 – 216	g/L	2.28	1.83 – 2.74	1.80	1.44 – 2.16
Immunoglobulin G (IgG) (Immunonephelometric, IFCC) (1)	mg/dL	996	797 – 1195	694	555 – 833	g/L	9.96	7.97 – 11.9	6.94	5.55 – 8.33
Immunoglobulin M (IgM) (Immunonephelometric, IFCC) (1)	mg/dL	139	111 – 167	77.2	61.7 – 92.6	g/L	1.39	1.11 – 1.67	0.772	0.617 – 0.926
SIEMENS DIMENSION SERIES										
Acetaminophen (Enzymatic, colorimetric)	µg/mL	17.5	14.0 – 21.0	89.4	71.5 – 107	µmol/L	116	92.6 – 139	591	473 – 709
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (5)	U/L	44.2	35.4 – 53.0	101	80.5 – 121	µmol/L/sec	0.738	0.591 – 0.886	1.68	1.34 – 2.02
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (IFCC 2002) (5)	U/L	29.8	23.8 – 35.7	87.8	70.3 – 105	µmol/L/sec	0.498	0.397 – 0.596	1.47	1.17 – 1.75
Albumin (Bromocresol purple)	g/dL	4.00	3.20 – 4.80	2.61	2.09 – 3.13	g/L	40.0	32.0 – 48.0	26.1	20.9 – 31.3
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (5)	U/L	116	92.9 – 139	529	423 – 635	µmol/L/sec	1.94	1.55 – 2.33	8.84	7.07 – 10.6
Amylase (CNP-triose/CNPG3) (5)	U/L	86.1	68.9 – 103	1107	886 – >1000	µmol/L/sec	1.44	1.15 – 1.73	18.5	14.8 – >16.7
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (5)	U/L	37.4	29.9 – 44.9	201	160 – 241	µmol/L/sec	0.624	0.499 – 0.749	3.35	2.68 – 4.02
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (IFCC 2002) (5)	U/L	37.5	30.0 – 44.9	201	161 – 241	µmol/L/sec	0.626	0.501 – 0.750	3.36	2.69 – 4.02
Bilirubin, Direct (Diazoitization)	mg/dL	0.272	0.190 – 0.354	1.04	0.831 – 1.25	µmol/L	4.65	3.26 – 6.05	17.8	14.2 – 21.3
Bilirubin, Total (Jendrassik Grof)	mg/dL	1.15	0.921 – 1.38	4.33	3.47 – 5.20	µmol/L	19.7	15.7 – 23.6	74.1	59.3 – 88.9
Calcium (o-cresolphthalein complexone)	mg/dL	9.00	8.10 – 9.90	12.2	11.0 – 13.4	mmol/L	2.25	2.02 – 2.48	3.05	2.74 – 3.36
Carbamazepine (Immunoturbidimetric)	µg/mL	2.92	2.34 – 3.51	13.7	11.0 – 16.5	µmol/L	12.4	9.89 – 14.8	58.0	46.4 – 69.6
Carbon Dioxide (CO2) (Enzymatic)	mEq/L	35.2	28.2 – 42.2	18.7	15.0 – 22.5	mmol/L	35.2	28.2 – 42.2	18.7	15.0 – 22.5

	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
SIEMENS DIMENSION SERIES (continued)										
Immunoglobulin G (IgG) (Immunoturbidimetric) (1)	mg/dL	968	775 – 1162	677	541 – 812	g/L	9.68	7.75 – 11.6	6.77	5.41 – 8.12
Immunoglobulin M (IgM) (Immunoturbidimetric) (1)	mg/dL	83.3	66.6 – 99.9	67.3	53.8 – 80.7	g/L	0.833	0.666 – 0.999	0.673	0.538 – 0.807
Iron (Ferene)	µg/dL	236	189 – 284	63.7	50.9 – 76.4	µmol/L	42.3	33.8 – 50.7	11.4	9.12 – 13.7
Iron-Binding Capacity, Total (TIBC) (Ferene) (IBCT) (1)	µg/dL	386	309 – 463	214	171 – 257	µmol/L	69.0	55.2 – 82.8	38.3	30.6 – 46.0
Lactate (Lactic Acid) (Enzymatic)	mg/dL	37.5	30.0 – 45.0	10.2	8.20 – 12.3	mmol/L	4.16	3.33 – 5.00	1.14	0.910 – 1.37
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (LDI) (5)	U/L	175	140 – 210	374	299 – 449	µmol/L/sec	2.92	2.34 – 3.50	6.25	5.00 – 7.49
Lipase (Colorimetric) (LIPL) (5)	U/L	174	139 – 208	275	220 – 330	µmol/L/sec	2.90	2.32 – 3.48	4.59	3.67 – 5.51
Lithium (Colorimetric)	mEq/L	0.630	0.567 – 0.693	1.99	1.79 – 2.19	mmol/L	0.630	0.567 – 0.693	1.99	1.79 – 2.19
Magnesium (Methylthymol blue)	mg/dL	1.83	1.56 – 2.10	4.23	3.60 – 4.86	mmol/L	0.753	0.640 – 0.866	1.74	1.48 – 2.00
Phenobarbital (Immunoturbidimetric)	µg/mL	14.9	11.9 – 17.8	50.7	40.6 – 60.8	µmol/L	64.0	51.2 – 76.8	218	175 – 262
Phenytoin (Immunoturbidimetric)	µg/mL	11.5	9.21 – 13.8	23.7	18.9 – 28.4	µmol/L	45.6	36.5 – 54.7	93.8	75.0 – 113
Phosphorus (Phosphomolybdate-UV)	mg/dL	3.46	3.12 – 3.81	7.55	6.80 – 8.31	mmol/L	1.12	1.01 – 1.23	2.44	2.19 – 2.68
Potassium (ISE Indirect)	mEq/L	3.80	3.42 – 4.18	6.08	5.47 – 6.68	mmol/L	3.80	3.42 – 4.18	6.08	5.47 – 6.68
Protein, Total (Biuret, serum blank, end point)	g/dL	7.11	5.69 – 8.54	4.61	3.69 – 5.54	g/L	71.1	56.9 – 85.4	46.1	36.9 – 55.4
Salicylate (Colorimetric)	mg/dL	8.17	6.54 – 9.80	13.0	10.4 – 15.6	mmol/L	0.592	0.473 – 0.710	0.944	0.755 – 1.13
Sodium (ISE Indirect)	mEq/L	144	129 – 158	125	113 – 138	mmol/L	144	129 – 158	125	113 – 138
T3 Total (EIA)	ng/mL	\$		\$		nmol/L	\$		\$	
T3 Uptake/T-Uptake (EIA)	% Uptake	36.7	29.3 – 44.0	54.5	43.6 – 65.4	% Uptake	36.7	29.3 – 44.0	54.5	43.6 – 65.4
T4 Free (Chemiluminescence) (LOCI FT4) (1)	ng/dL	1.02	0.817 – 1.23	>8.00		pmol/L	13.2	10.5 – 15.8	>103	
T4 Total (EIA)	µg/dL	8.21	6.57 – 9.85	23.3	18.7 – >24.0	nmol/L	106	84.7 – 127	301	241 – >310
Theophylline (Immunoturbidimetric)	µg/mL	9.13	7.30 – 11.0	24.4	19.5 – 29.2	µmol/L	50.7	40.5 – 60.8	135	108 – 162
Thyroid Stimulating Hormone (TSH) (Chemiluminescence)	µIU/mL	1.45	1.16 – 1.73	17.3	13.8 – 20.7	mIU/L	1.45	1.16 – 1.73	17.3	13.8 – 20.7
Thyroid Stimulating Hormone (TSH) (EIA)	µIU/mL	1.13	0.903 – 1.35	14.6	11.7 – 17.5	mIU/L	1.13	0.903 – 1.35	14.6	11.7 – 17.5
Tobramycin (Immunoturbidimetric)	µg/mL	6.50	5.20 – 7.80	1.47	1.17 – 1.76	µmol/L	13.9	11.1 – 16.7	3.14	2.51 – 3.77
Transferrin (Immunoturbidimetric) (1)	mg/dL	234	187 – 281	162	130 – 194	g/L	2.34	1.87 – 2.81	1.62	1.30 – 1.94
Triglycerides (Enzymatic, Endpoint) (TGL)	mg/dL	192	153 – 230	88.7	71.0 – 106	mmol/L	2.17	1.73 – 2.60	1.00	0.802 – 1.20
Urea Nitrogen (Urease, UV) (8)	mg/dL	16.1	12.9 – 19.3	45.9	36.7 – 55.1	mmol/L	5.74	4.59 – 6.89	16.4	13.1 – 19.7
Uric Acid (Uricase, UV)	mg/dL	4.80	3.84 – 5.76	9.87	7.89 – 11.8	µmol/L	286	228 – 343	587	469 – 704
Valproic Acid (Immunoturbidimetric)	µg/mL	36.7	29.4 – 44.1	125	100 – 150	µmol/L	254	204 – 305	866	693 – 1040
Vancomycin (Immunoturbidimetric)	µg/mL	5.63	4.50 – 6.75	31.8	25.4 – 38.2	µmol/L	3.88	3.11 – 4.66	21.9	17.6 – 26.3
SIEMENS DIMENSION VISTA SYSTEMS										
Acetaminophen (Enzymatic, colorimetric)	µg/mL	19.2	15.4 – 23.0	89.7	71.8 – 108	µmol/L	127	102 – 152	593	474 – 712
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (5)	U/L	40.7	32.5 – 48.8	105	84.1 – 126	µkat/L	0.679	0.543 – 0.815	1.76	1.41 – 2.11
Albumin (Bromocresol purple)	g/dL	3.91	3.13 – 4.70	2.63	2.10 – 3.15	g/L	39.1	31.3 – 47.0	26.3	21.0 – 31.5
Alkaline Phosphatase (ALP) (PNPP, AMP Buffer) (5)	U/L	102	81.5 – 122	500	400 – 600	µkat/L	1.70	1.36 – 2.04	8.35	6.68 – 10.0
Amylase (CNP-triose/CNPG3) (5)	U/L	84.1	67.3 – 101	>650		µkat/L	1.40	1.12 – 1.69	>10.9	
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (5)	U/L	33.3	26.6 – 39.9	197	157 – 236	µkat/L	0.555	0.444 – 0.666	3.28	2.63 – 3.94
Bilirubin, Direct (Diazotization)	mg/dL	0.318	0.255 – 0.382	1.11	0.888 – 1.33	µmol/L	5.44	4.35 – 6.53	19.0	15.2 – 22.8
Bilirubin, Total (Jendrassik Grof)	mg/dL	1.21	0.965 – 1.45	4.34	3.47 – 5.20	µmol/L	20.6	16.5 – 24.8	74.2	59.3 – 89.0
C3 Complement (Immunonephelometric, fixed time, kinetic) (1)	mg/dL	185	148 – 221	117	93.7 – 141	g/L	1.85	1.48 – 2.21	1.17	0.937 – 1.41
Calcium (o-cresolphthalein complexone)	mg/dL	9.22	8.30 – 10.1	12.5	11.2 – 13.7	mmol/L	2.30	2.07 – 2.53	3.12	2.81 – 3.43
Carbamazepine (Immunoturbidimetric)	µg/mL	3.13	2.51 – 3.76	14.1	11.3 – 16.9	µmol/L	13.3	10.6 – 15.9	59.5	47.6 – 71.4
Carbon Dioxide (CO <sub>2</sub> ) (Enzymatic)	mEq/L	32.2	25.7 – 38.6	17.7	14.1 – 21.2	mmol/L	32.2	25.7 – 38.6	17.7	14.1 – 21.2
Chloride (ISE Indirect)	mEq/L	97.7	87.9 – 107	82.2	74.0 – 90.4	mmol/L	97.7	87.9 – 107	82.2	74.0 – 90.4
Cholesterol, High Density Lipoprotein (HDL) (K3048) (HDLC) (3)	mg/dL	53.2	42.5 – 63.8	23.0	18.4 – 27.6	mmol/L	1.38	1.10 – 1.65	0.596	0.477 – 0.715
Cholesterol, High Density Lipoprotein (HDL) (K3048A) (HDLC) (3)	mg/dL	56.5	45.2 – 67.8	25.0	20.0 – 30.0	mmol/L	1.46	1.17 – 1.76	0.648	0.518 – 0.777
Cholesterol, Low Density Lipoprotein (LDL) (Direct measure) (ALDL)	mg/dL	129	103 – 155	60.5	48.4 – 72.6	mmol/L	3.34	2.67 – 4.00	1.57	1.25 – 1.88
Cholesterol, Total (Cholesterol oxidase, esterase, peroxidase)	mg/dL	238	190 – 285	91.7	73.3 – 110	mmol/L	6.16	4.93 – 7.39	2.37	1.90 – 2.85
Creatine Kinase (CK) (NAC activated) (CKI) (5)	U/L	133	106 – 160	418	335 – 502	µkat/L	2.22	1.78 – 2.67	6.99	5.59 – 8.38
Creatine Kinase (CK) (Rosalki, other modified) (5)	U/L	\$		\$		µkat/L	\$		\$	
Creatinine (Alkaline picrate-kinetic)	mg/dL	2.56	2.05 – 3.07	6.25	5.00 – 7.50	µmol/L	226	181 – 271	553	442 – 663
Digoxin (Chemiluminescence) (LOCI DIGXN)	ng/mL	1.22	0.975 – 1.46	3.07	2.46 – 3.69	nmol/L	1.56	1.25 – 1.87	3.93	3.14 – 4.72
Digoxin (EIA) (DIG)	ng/mL	\$		\$		nmol/L	\$		\$	
Gamma Glutamyltransferase (GGT) (5)	U/L	73.6	58.9 – 88.4	186	149 – 223	µkat/L	1.23	0.984 – 1.48	3.11	2.49 – 3.73
Gentamicin (Immunoturbidimetric)	µg/mL	1.58	1.27 – 1.90	9.33	7.47 – 11.2	µmol/L	3.31	2.65 – 3.97	19.5	15.6 – 23.4
Glucose (Hexokinase)	mg/dL	85.1	68.1 – 102	267	213 – 320	mmol/L	4.72	3.78 – 5.67	14.8	11.8 – 17.7
hCG-Beta Subunit (Chemiluminescence) (LOCI BHCG) (1)	mIU/mL	16.7	13.3 – 20.0	2.00	1.60 – 2.40	IU/L	16.7	13.3 – 20.0	2.00	1.60 – 2.40
Immunoglobulin A (IgA) (Immunonephelometric, fixed time, kinetic) (1)	mg/dL	248	199 – 298	190	152 – 228	g/L	2.48	1.99 – 2.98	1.90	1.52 – 2.28
Immunoglobulin G (IgG) (Immunonephelometric, fixed time, kinetic) (1)	mg/dL	1021	817 – 1225	714	571 – 857	g/L	10.2	8.17 – 12.3	7.14	5.71 – 8.57
Immunoglobulin M (IgM) (Immunonephelometric, fixed time, kinetic) (1)	mg/dL	125	100 – 150	83.1	66.5 – 99.7	g/L	1.25	1.00 – 1.50	0.831	0.665 – 0.997
Iron (Ferene)	µg/dL	240	192 – 287	65.4	52.3 – 78.5	µmol/L	42.9	34.3 – 51.4	11.7	9.36 – 14.0
Iron-Binding Capacity, Total (TIBC) (Ferene) (1)	µg/dL	414	331 – 497	234	187 – 280	µmol/L	74.1	59.3 – 88.9	41.8	33.4 – 50.2
Lactate (Lactic Acid) (Lactate to Pyruvate)	mg/dL	38.4	30.8 – 46.1	11.0	8.77 – 13.2	mmol/L	4.27	3.41 – 5.12	1.22	0.973 – 1.46
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (LDH) (5)	U/L	151	121 – 181	327	261 – 392	µkat/L	2.52	2.02 – 3.03	5.45	4.36 – 6.54
Lactate Dehydrogenase (LDH) (Lactate to Pyruvate) (LDI) (5)	U/L	177	141 – 212	368	294 – 441	µkat/L	2.95	2.36 – 3.54	6.14	4.91 – 7.37
Lipase (Colorimetric) (LIPL) (K3056) (5)	U/L	186	149 – 223	344	275 – 412	µkat/L	3.11	2.48 – 3.73	5.74	4.59 – 6.89
Lithium (Colorimetric)	mEq/L	0.711	0.640 – 0.782	2.00	1.80 – 2.20	mmol/L	0.711	0.640 – 0.782	2.00	1.80 – 2.20
Magnesium (Methylthymol blue)	mg/dL	1.98	1.69 – 2.28	4.35	3.70 – 5.00	mmol/L	0.816	0.694 – 0.938	1.79	1.52 – 2.06
Phenobarbital (Immunoturbidimetric)	µg/mL	14.7	11.8 – 17.7	48.3	38.6 – 58.0	µmol/L	63.4	50.7 – 76.1	208	167 – 250
Phenytoin (Immunoturbidimetric)	µg/mL	11.9	9.55 – 14.3	23.6	18.9 – 28.4	µmol/L	47.3	37.8 – 56.7	93.6	74.9 – 112
Phosphorus (Phosphomolybdate-UV)	mg/dL	3.35	3.02 – 3.69	7.35	6.62 – 8.09	mmol/L	1.08	0.974 – 1.19	2.37	2.14 – 2.61
Potassium (ISE Indirect)	mEq/L	3.96	3.57 – 4.36	6.19	5.57 – 6.81	mmol/L	3.96	3.57 – 4.36	6.19	5.57 – 6.81
Protein, Total (Biuret, serum blank, end point)	g/dL	7.03	5.62 – 8.43	4.53	3.62 – 5.43	g/L	70.3	56.2 – 84.3	45.3	36.2 – 54.3
Salicylate (Trinder)	mg/dL	9.10	7.28 – 10.9	15.6	12.5 – 18.7	mmol/L	0.659	0.527 – 0.791	1.13	0.902 – 1.35
Sodium (ISE Indirect)	mEq/L	145	130 – 159	125	113 – 138 –					

	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
SIEMENS IMMULITE										
Cortisol (Chemiluminescence)	µg/dL	10.8	8.63 – 12.9	43.4	34.7 – >50.0	nmol/L	298	238 – 357	1197	958 – >1380
T4 Total (Chemiluminescence)	µg/dL	8.32	6.65 – 9.98		18.5 – >24.0	nmol/L	107	85.8 – 129		238 – >310
Thyroid Stimulating Hormone (TSH) (Chemiluminescence) (Rapid TSH)	µIU/mL	1.51	1.21 – 1.82	17.9	14.3 – 21.4	mIU/L	1.51	1.21 – 1.82	17.9	14.3 – 21.4
Thyroid Stimulating Hormone (TSH) (Chemiluminescence) (TSH3)	µIU/mL	\$		\$		mIU/L	\$		\$	
SIEMENS IMMULITE 2000 / XPI / 2500										
Cortisol (Chemiluminescence)	µg/dL	9.87	7.90 – 11.8	46.3	37.0 – >50.0	nmol/L	272	218 – 327	1277	1021 – >1380
T3 Total (Chemiluminescence)	ng/dL	\$		\$		nmol/L	\$		\$	
T4 Total (Chemiluminescence)	µg/dL	\$		\$		nmol/L	\$		\$	
Thyroid Stimulating Hormone (TSH) (Chemiluminescence) (Rapid TSH)	µIU/mL	\$		\$		mIU/L	\$		\$	

FOOTNOTES // Fussnoten // Notes de bas de page // Note a pie' pagina // Notas al pie de página // Notas de rodapé // Fotnoter // Fodnoter

- ENGLISH
- (1) Endogenous levels.
  - (2) No claim is made for expected values or stability.
  - (3) Direct Methods only.
  - (4) Values are not provided.
  - (5) Values were obtained at 37°C.
  - (6) The mean value is calculated from data generated by instruments using this method.
  - (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.
  - (8) mg/dL Urea Nitrogen x 2.14 = mg/dL UREA. S.I.U. value range is expressed as UREA.
- ▲ 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) Es können keine Angaben hinsichtlich der erwarteten Werte oder der Stabilität gemacht werden.
  - (3) Nur direkte Methoden.
  - (4) Keine Wertangaben.
  - (5) Die Werte wurden bei 37 °C ermittelt.
  - (6) Der Mittelwert wurde aus Daten errechnet, die mit Hilfe von Geräten unter Anwendung dieser Methode erzielt wurden.
  - (7) Dieses Produkt wurde mit den in der Packungsbeilage angegebenen Methoden getestet. Die Leistungsmerkmale dieses Produkts wurden nicht mit kapillarelektrophoretischen Methoden überprüft.
  - (8) mg/dl Harnstoff-Stickstoff x 2,14 = mg/dl Harnstoff. Die Bereiche der SI-Einheiten sind als Harnstoff angegeben.
- ▲ 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.
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- FRANÇAIS
- (1) Taux endogènes.
  - (2) Aucune information n'est fournie au sujet des valeurs attendues ou de la stabilité.
  - (3) Méthodes directes seulement.
  - (4) Les valeurs ne sont pas fournies.
  - (5) Les valeurs ont été obtenues à 37 °C.
  - (6) La valeur moyenne est calculée à partir de données générées par les appareils utilisant cette méthode.
  - (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.
  - (8) mg/dL azote uréique x 2,14 = mg/dL URÉE. La plage de valeurs S.I. fait référence à l'URÉE.
- ▲ 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) Non vengono forniti i valori attesi, né i dati di stabilità.
  - (3) Méthodes directes seulement.
  - (4) Valori non forniti.
  - (5) I valori sono stati ottenuti a 37 °C.
  - (6) Il valore medio è calcolato dai dati generati da strumenti che utilizzano questa metodologia.
  - (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.
  - (8) mg/dL azoto ureico x 2,14 = mg/dL UREA. L'intervallo del valore S.I.U. viene espresso come UREA.
- ▲ 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 garantizan los valores previstos ni la estabilidad.
  - (3) Sólo métodos directos.
  - (4) No se proporcionan valores.
  - (5) Los valores se obtuvieron a 37°C.
  - (6) La media se calcula a partir de los datos generados por los instrumentos que utilizan este método.
  - (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.
  - (8) mg/dL de Urea Nitrogenada x 2,14 = mg/dL de UREA. El rango de valor de SI se expresa como UREA.
- ▲ 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 foi feita qualquer afirmação em relação aos valores esperados ou à estabilidade.
  - (3) Apenas através de métodos directos.
  - (4) Não são fornecidos valores.
  - (5) Os valores foram obtidos a uma temperatura de 37°C.
  - (6) O valor médio é calculado com base em dados determinados por instrumentos utilizando este método.
  - (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.
  - (8) mg/dl nitrogénio de ureia x 2,14 = mg/dl UREA. O limite do valor S.I.U. é expresso como UREIA.
- ▲ 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) Inga utfästelser avseende förväntade värden eller hållbarhetstider görs.
  - (3) Endast direkta metoder.
  - (4) Värden tillhandahålls ej.
  - (5) Värdena erhöles vid 37 °C.
  - (6) Medelvärdet har beräknats på data som genererats av instrument med användning av denna metod.
  - (7) Produkten har testats med de metoder som anges i bipacksedeln. Produktens prestanda har ej utvärderats för användning med kapillärelektroforetiska metoder.
  - (8) mg/dL ureakväve x 2,14 = mg/dL UREA. S.I.U. värdeområde uttrycks som UREA.
- ▲ 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) Der er ikke fastsat forventede værdier eller holdbarhed.
  - (3) Kun direkte metoder.
  - (4) Værdier er ikke angivet.
  - (5) Værdierne blev opnået ved 37 °C.
  - (6) Gennemsnitsværdien er beregnet ud fra data genereret af instrumenter efter denne metode.
  - (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.
  - (8) mg/dl ureanitrogen x 2,14 = mg/dl UREA. S.I.U. værdiområder udtrykkes som UREA.
- ▲ 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 standard variationensværdien 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 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
ALANINE AMINOTRANSFERASE (ALT/SGPT)										
Agappe Diagnostics Ltd. (IFCC) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
DiaSys Diagnostic Systems (IFCC, NVKC, without P5P) (12701) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
DiaSys Diagnostic Systems (IFCC, SFBC, SEQC, with P5P) (12701 + 25010) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Fortress Diagnostics (IFCC UV Liquid) (BXC0213) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Fortress Diagnostics (IFCC UV Lyophilized) (BXC0211) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Reckon Diagnostics (IFCC Kinetic) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Sekisui Medical Pureauto S, Auto sera S, Qualigent ALT (UV without P5P) (5)	U/L	35.0	30.0 – 40.0	103	88.0 – 119	μmol/L/sec	0.585	0.501 – 0.668	1.72	1.47 – 1.99
Sekisui Medical Pureauto S, Qualigent ALT-L (UV without P5P) (5)	U/L	36.0	30.0 – 41.0	102	86.0 – 117	μmol/L/sec	0.601	0.501 – 0.685	1.70	1.44 – 1.95
ALBUMIN										
Agappe Diagnostics Ltd. (BCG)	g/dL	▲		▲		g/L	▲		▲	
DiaSys Diagnostic Systems (Bromcresol Green) (10220)	g/dL	▲		▲		g/L	▲		▲	
Fortress Diagnostics (Bromcresol green) (BXC0221)	g/dL	▲		▲		g/L	▲		▲	
Reckon Diagnostics (BCG)	g/dL	▲		▲		g/L	▲		▲	
Sekisui Medical Clinimate, Auto sera (Dye Binding-BCG)	g/dL	4.00	3.60 – 4.40	2.70	2.40 – 3.00	g/L	40.0	36.0 – 44.0	27.0	24.0 – 30.0
ALKALINE PHOSPHATASE (ALP)										
Agappe Diagnostics Ltd. (DGKC-DEA buffer) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
DiaSys Diagnostic Systems (DGKC 1970) (10401) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
DiaSys Diagnostic Systems (IFCC) (10441) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Fortress Diagnostics (AMP) (BXC0182) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Fortress Diagnostics (AMP) (IFCC Liquid) (BXC0184) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Fortress Diagnostics (DEA) (BXC0181) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Fortress Diagnostics (DEA) (DGKC Liquid) (BXC0185) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Reckon Diagnostics (DEA-p-NPP) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Sekisui Medical Pureauto S, Auto sera S, Qualigent ALP (5)	U/L	295	244 – 346	1216	1110 – 1315	μmol/L/sec	4.93	4.07 – 5.78	20.3	18.5 – 22.0
ALPHA HYDROXYBUTYRATE DEHYDROGENASE (CαHBDH) (1)										
DiaSys Diagnostic Systems (DGKC) (13201) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Reckon Diagnostics (GSCC, UV-Kinetic) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
AMYLASE										
Agappe Diagnostics Ltd. (CNP63) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
DiaSys Diagnostic Systems (EPS G-7) (10501) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Reckon Diagnostics (CNP6-2 Kinetic) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Sekisui Medical Pureauto S, Auto sera S AMY (5)	U/L	89.0	76.0 – 103	825	701 – 948	μmol/L/sec	1.49	1.27 – 1.72	13.8	11.7 – 15.8
Sekisui Medical Pureauto S, Qualigent AMY-G2 (5)	U/L	103	88.0 – 118	1200	1020 – 1380	μmol/L/sec	1.72	1.47 – 1.97	20.0	17.0 – 23.0
AMYLASE, PANCREATIC										
DiaSys Diagnostic Systems (EPS G-7) (10551) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
APOLIPOPROTEIN A-I (1)										
Agappe Diagnostics Ltd. (Turbidimetric Immunoassay)	mg/dL	▲		▲		g/L	▲		▲	
Fortress Diagnostics (Immunoturbidimetric) (BXC0411)	mg/dL	▲		▲		g/L	▲		▲	
APOLIPOPROTEIN B (1)										
Agappe Diagnostics Ltd. (Turbidimetric Immunoassay)	mg/dL	▲		▲		g/L	▲		▲	
Fortress Diagnostics (Immunoturbidimetric) (BXC0412)	mg/dL	▲		▲		g/L	▲		▲	
ASPARTATE AMINOTRANSFERASE (AST/SGOT)										
Agappe Diagnostics Ltd. (IFCC) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
DiaSys Diagnostic Systems (IFCC, NVKC, without P5P) (12601) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
DiaSys Diagnostic Systems (IFCC, SFBC, SEQC, with P5P) (12601 + 25010) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Fortress Diagnostics (IFCC UV Liquid) (BXC0203) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Fortress Diagnostics (IFCC UV Lyophilized) (BXC0201) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Reckon Diagnostics (IFCC Kinetic) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
Sekisui Medical Pureauto S, Auto sera S, Qualigent AST (UV without P5P) (5)	U/L	38.0	32.0 – 44.0	194	165 – 224	μmol/L/sec	0.635	0.534 – 0.735	3.24	2.76 – 3.74
Sekisui Medical Pureauto S, Qualigent AST-L (UV without P5P) (5)	U/L	40.0	34.0 – 45.0	196	167 – 225	μmol/L/sec	0.668	0.568 – 0.752	3.27	2.79 – 3.76
BILIRUBIN, DIRECT										
Agappe Diagnostics Ltd. (DMSO)	mg/dL	▲		▲		μmol/L	▲		▲	
DiaSys Diagnostic Systems (DCA) (10821)	mg/dL	▲		▲		μmol/L	▲		▲	
Fortress Diagnostics (Jendrassik Grof) (BXC0193)	mg/dL	▲		▲		μmol/L	▲		▲	
Reckon Diagnostics (J&G)	mg/dL	▲		▲		μmol/L	▲		▲	
Sekisui Medical Clinimate D-BIL-2	mg/dL	1.15	0.700 – 1.60	4.20	2.50 – 5.90	μmol/L	19.7	12.0 – 27.4	71.8	42.8 – 101
BILIRUBIN, TOTAL										
Agappe Diagnostics Ltd. (DMSO)	mg/dL	▲		▲		μmol/L	▲		▲	
Agappe Diagnostics Ltd. (TAB)	mg/dL	▲		▲		μmol/L	▲		▲	
DiaSys Diagnostic Systems (DCA) (10811)	mg/dL	▲		▲		μmol/L	▲		▲	
Fortress Diagnostics (Jendrassik Grof) (BXC0193)	mg/dL	▲		▲		μmol/L	▲		▲	
Reckon Diagnostics (J&G)	mg/dL	▲		▲		μmol/L	▲		▲	
Sekisui Medical Clinimate BIL-2	mg/dL	1.15	0.700 – 1.60	4.20	2.50 – 5.90	μmol/L	19.7	12.0 – 27.4	71.8	42.8 – 101
Sekisui Medical Unimeddy T-BIL-LQ	mg/dL	1.15	0.900 – 1.40	4.20	3.30 – 5.00	μmol/L	19.7	15.4 – 23.9	71.8	56.4 – 85.5
C3 COMPLEMENT (1)										
Agappe Diagnostics Ltd. (Turbidimetric Immunoassay)	mg/dL	▲		▲		g/L	▲		▲	
Sekisui Medical Immunotesta C3	mg/dL	137	116 – 158	88.0	75.0 – 101	g/L	1.37	1.16 – 1.58	0.880	0.750 – 1.01

INTERNATIONAL USE ONLY -

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	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
CALCIUM										
Agappe Diagnostics Ltd. (Arsenazo III)	mg/dL	▲		▲		mmol/L	▲		▲	
Agappe Diagnostics Ltd. (OCPC)	mg/dL	▲		▲		mmol/L	▲		▲	
DiaSys Diagnostic Systems (Arsenazo) (11130)	mg/dL	▲		▲		mmol/L	▲		▲	
DiaSys Diagnostic Systems (CPC) (11121)	mg/dL	▲		▲		mmol/L	▲		▲	
Fortress Diagnostics (Arsenazo III) (BXC0292)	mg/dL	▲		▲		mmol/L	▲		▲	
Fortress Diagnostics (OCPC) (BXC0291)	mg/dL	▲		▲		mmol/L	▲		▲	
Reckon Diagnostics (Arsenazo III)	mg/dL	▲		▲		mmol/L	▲		▲	
Reckon Diagnostics (OCPC)	mg/dL	▲		▲		mmol/L	▲		▲	
Sekisui Medical Clinimate, Qualigent CA	mg/dL	8.90	8.00 – 9.80	12.3	11.1 – 13.6	mmol/L	2.22	2.00 – 2.45	3.08	2.78 – 3.40
CARBON DIOXIDE (CO <sub>2</sub> )										
Reckon Diagnostics (PEPC)	mEq/L	▲		▲		mmol/L	▲		▲	
CERULOPLASMIN (1)										
Agappe Diagnostics Ltd. (Turbidimetric Immunoassay)	mg/dL	▲		▲		mg/L	▲		▲	
CHLORIDE										
Agappe Diagnostics Ltd. (Thiocyanate)	mEq/L	▲		▲		mmol/L	▲		▲	
DiaSys Diagnostic Systems (Thiocyanate) (11200)	mEq/L	▲		▲		mmol/L	▲		▲	
Fortress Diagnostics (Thiocyanate) (BXC0281)	mEq/L	▲		▲		mmol/L	▲		▲	
Reckon Diagnostics (Thiocyanate)	mEq/L	▲		▲		mmol/L	▲		▲	
Sekisui Medical Internal Standard Solution -K/-B, Diluent -K/-B	mEq/L	105	96.0 – 113	85.0	78.0 – 92.0	mmol/L	105	96.0 – 113	85.0	78.0 – 92.0
CHOLESTEROL, HIGH DENSITY LIPOPROTEIN (HDL) (3)										
Agappe Diagnostics Ltd. (Immunoinhibition)	mg/dL	▲		▲		mmol/L	▲		▲	
DiaSys Diagnostic Systems (Immunoinhibition) (13521)	mg/dL	▲		▲		mmol/L	▲		▲	
Sekisui Medical Cholestest N, Qualigent N HDL	mg/dL	71.0	61.0 – 82.0	24.0	21.0 – 28.0	mmol/L	1.84	1.58 – 2.12	0.622	0.544 – 0.725
CHOLESTEROL, LOW DENSITY LIPOPROTEIN (LDL)										
Agappe Diagnostics Ltd. (Enzyme Selective Protection)	mg/dL	▲		▲		mmol/L	▲		▲	
DiaSys Diagnostic Systems (Homogenous Select) (14121)	mg/dL	▲		▲		mmol/L	▲		▲	
Sekisui Medical Cholestest, Qualigent LDL	mg/dL	104	88.0 – 119	49.0	42.0 – 57.0	mmol/L	2.69	2.28 – 3.08	1.27	1.09 – 1.48
CHOLESTEROL, TOTAL										
Agappe Diagnostics Ltd. (CHOD-PAP)	mg/dL	▲		▲		mmol/L	▲		▲	
DiaSys Diagnostic Systems (CHOD-PAP) (11350 + 11300)	mg/dL	▲		▲		mmol/L	▲		▲	
Fortress Diagnostics (CHOD-PAP Liquid) (BXC0261)	mg/dL	▲		▲		mmol/L	▲		▲	
Reckon Diagnostics (CHOD-PAP)	mg/dL	▲		▲		mmol/L	▲		▲	
Sekisui Medical Cholestest, Qualigent CHO	mg/dL	247	222 – 272	103	93.0 – 114	mmol/L	6.40	5.75 – 7.04	2.67	2.41 – 2.95
Sekisui Medical Pureauto S CHO-N	mg/dL	247	222 – 271	104	94.0 – 115	mmol/L	6.40	5.75 – 7.02	2.69	2.43 – 2.98
CHOLINESTERASE (1)										
Agappe Diagnostics Ltd. (Butyrylthiocholine) (5)	U/L	▲		▲		µmol/L/sec	▲		▲	
DiaSys Diagnostic Systems (Butyrylthiocholin method) (11401) (5)	U/L	▲		▲		µmol/L/sec	▲		▲	
CREATINE KINASE (CK)										
Agappe Diagnostics Ltd. (IFCC, NAC Activated) (5)	U/L	▲		▲		µmol/L/sec	▲		▲	
DiaSys Diagnostic Systems (DGKC, IFCC, NVKC, SEQC) (11631) (5)	U/L	▲		▲		µmol/L/sec	▲		▲	
Fortress Diagnostics (NAC Activated Liquid) (BXC0252) (5)	U/L	▲		▲		µmol/L/sec	▲		▲	
Reckon Diagnostics (IFCC, NAC Activated) (5)	U/L	▲		▲		µmol/L/sec	▲		▲	
Sekisui Medical Pureauto S CK (5)	U/L	133	101 – 165	437	332 – 542	µmol/L/sec	2.22	1.69 – 2.76	7.30	5.54 – 9.05
Sekisui Medical Pureauto S, Qualigent CK-L (5)	U/L	132	101 – 164	441	335 – 546	µmol/L/sec	2.20	1.69 – 2.74	7.36	5.59 – 9.12
CREATININE										
Agappe Diagnostics Ltd. (Enzymatic)	mg/dL	▲		▲		µmol/L	▲		▲	
Agappe Diagnostics Ltd. (Optimized Jaffe)	mg/dL	▲		▲		µmol/L	▲		▲	
DiaSys Diagnostic Systems (Jaffe with compensation) (11711)	mg/dL	▲		▲		µmol/L	▲		▲	
DiaSys Diagnostic Systems (PAP) (11749)	mg/dL	▲		▲		µmol/L	▲		▲	
Fortress Diagnostics (Jaffe without Deproteinization) (BXC0111)	mg/dL	▲		▲		µmol/L	▲		▲	
Reckon Diagnostics (Jaffe, Modified)	mg/dL	▲		▲		µmol/L	▲		▲	
Sekisui Medical Clinimate CRE	mg/dL	2.50	2.20 – 2.70	6.00	5.40 – 6.60	µmol/L	221	194 – 239	530	477 – 583
Sekisui Medical Pureauto S CRE-L	mg/dL	1.70	1.50 – 1.90	5.30	4.80 – 5.90	µmol/L	150	133 – 168	469	424 – 522
Sekisui Medical Pureauto S, Qualigent CRE-N	mg/dL	1.80	1.70 – 2.00	5.60	5.00 – 6.10	µmol/L	159	150 – 177	495	442 – 539
Wako L-Type (Enzymatic HMPS) (CREA M)	mg/dL	1.84	1.47 – 2.21	5.63	4.50 – 6.76	µmol/L	163	130 – 195	498	398 – 598
GAMMA GLUTAMYLTRANSFERASE (GGT)										
Agappe Diagnostics Ltd. (Szasz) (5)	U/L	▲		▲		µmol/L/sec	▲		▲	
DiaSys Diagnostic Systems (IFCC, DGKC 1994) (12801) (5)	U/L	▲		▲		µmol/L/sec	▲		▲	
Reckon Diagnostics (SZASZ) (5)	U/L	▲		▲		µmol/L/sec	▲		▲	
Sekisui Medical Pureauto S GGT (5)	U/L	63.0	50.0 – 75.0	158	126 – 190	µmol/L/sec	1.05	0.835 – 1.25	2.64	2.10 – 3.17
Sekisui Medical Pureauto S, Qualigent γ-GT (5)	U/L	64.0	51.0 – 76.0	164	131 – 196	µmol/L/sec	1.07	0.852 – 1.27	2.74	2.19 – 3.27
GLUCOSE										
Agappe Diagnostics Ltd. (GOD-PAP)	mg/dL	▲		▲		mmol/L	▲		▲	
DiaSys Diagnostic Systems (GOD-PAP) (12550/12500)	mg/dL	▲		▲		mmol/L	▲		▲	
DiaSys Diagnostic Systems (HK G6P-DH) (12511)	mg/dL	▲		▲		mmol/L	▲		▲	
Dr. Mueller Geraetebau GmbH, SUPER G1, SUPER G2, SUPER GL Serie	mg/dL	86.1	76.8 – 95.7	277	247 – 308	mmol/L	4.78	4.26 – 5.31	15.4	13.7 – 17.1
EKF und Eppendorf (BIOSEN-, EBIO basic -und EBIO compact -Analysatoren) GOD	mg/dL	87.7	78.0 – 97.3	270	240 – 300	mmol/L	4.87	4.33 – 5.40	15.0	13.3 – 16.6
Fortress Diagnostics (GOD-PAP Liquid) (BXC0101)	mg/dL	▲		▲		mmol/L	▲		▲	
Fortress Diagnostics (GOD-PAP Lyophilized) (BXC0102)	mg/dL	▲		▲		mmol/L	▲		▲	
GOD-POD Membrane (6)	mg/dL	86.9	69.5 – 104	274	219 – 328	mmol/L	4.82	3.86 – 5.79	15.2	12.2 – 18.2
Kabe Labortechnik GmbH (GA 1 mit GOD-Enzymmembran)	mg/dL	88.3	78.6 – 98.1	269	239 – 299	mmol/L	4.90	4.36 – 5.44	14.9	13.3 – 16.6
Kabe Labortechnik GmbH (GA 2 mit Dickschlelektrode-DSE)	mg/dL	89.8	79.9 – 99.7	268	239 – 298	mmol/L	4.98	4.43 – 5.53	14.9	13.2 – 16.5
Reckon Diagnostics (GOD-PAP)	mg/dL	▲		▲		mmol/L	▲		▲	
Sekisui Medical Pureauto S GLU	mg/dL	87.0	78.0 – 95.0	277	249 – 304	mmol/L	4.83	4.33 – 5.27	15.4	13.8 – 16.9
Sekisui Medical Pureauto S, Qualigent GLU-R	mg/dL	86.0	77.0 – 94.0	274	246 – 301	mmol/L	4.77	4.27 – 5.22	15.2	13.7 – 16.7

INTERNATIONAL USE ONLY -

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	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412		
		Mean	Range	Mean	Range		Mean	Range	Mean	Range	
GLUTAMATE DEHYDROGENASE (GLDH) (1)											
DiaSys Diagnostic Systems (GDKC 1970) (12411) (5)	U/L	▲		▲		μmol/L/sec	▲		▲		
IMMUNOGLOBULIN A (IgA) (1)											
Agappe Diagnostics Ltd. (Turbidimetric Immunoassay)	mg/dL	▲		▲		g/L	▲		▲		
DiaSys Diagnostic Systems (Immunoturbidimetric) (17202)	mg/dL	▲		▲		g/L	▲		▲		
Sekisui Medical Pureauto S IgA	mg/dL	189	161 – 218	126	107 – 145	g/L	1.89	1.61 – 2.18	1.26	1.07 – 1.45	
IMMUNOGLOBULIN G (IgG) (1)											
Agappe Diagnostics Ltd. (Turbidimetric Immunoassay)	mg/dL	▲		▲		g/L	▲		▲		
DiaSys Diagnostic Systems (Immunoturbidimetric) (17212)	mg/dL	▲		▲		g/L	▲		▲		
Sekisui Medical Pureauto S IgG	mg/dL	931	792 – 1071	645	548 – 742	g/L	9.31	7.92 – 10.7	6.45	5.48 – 7.42	
IMMUNOGLOBULIN M (IgM) (1)											
Agappe Diagnostics Ltd. (Turbidimetric Immunoassay)	mg/dL	▲		▲		g/L	▲		▲		
DiaSys Diagnostic Systems (Immunoturbidimetric) (17222)	mg/dL	▲		▲		g/L	▲		▲		
Sekisui Medical Pureauto S IgM	mg/dL	93.0	79.0 – 107	62.0	53.0 – 72.0	g/L	0.930	0.790 – 1.07	0.620	0.530 – 0.720	
IRON											
DiaSys Diagnostic Systems (Ferene) (11911)	μg/dL	▲		▲		μmol/L	▲		▲		
Fortress Diagnostics (Ferene) (BXC0232)	μg/dL	▲		▲		μmol/L	▲		▲		
Fortress Diagnostics (Ferrozine) (BXC0235)	μg/dL	▲		▲		μmol/L	▲		▲		
LACTATE (LACTIC ACID)											
DiaSys Diagnostic Systems (LDH UV endpoint) (14001)	mg/dL	▲		▲		mmol/L	▲		▲		
Dr. Mueller Geraetebau GmbH, SUPER G1, SUPER G2, SUPER GL Serie	mg/dL	38.4	34.1 – 42.6	12.4	11.0 – 13.8	mmol/L	4.26	3.79 – 4.73	1.38	1.22 – 1.53	
EKF und Eppendorf (BIOSENS-, EBIObasic-und EBIObcompact-Analysatonan) LOD	mg/dL	39.5	35.2 – 44.0	12.0	10.6 – 13.2	mmol/L	4.39	3.91 – 4.88	1.33	1.18 – 1.47	
LACTATE DEHYDROGENASE (LDH)											
Agappe Diagnostics Ltd. (LDH-P, SCE) (5)	U/L	▲		▲		μmol/L/sec	▲		▲		
DiaSys Diagnostic Systems (DGKC opt.) (14201) (5)	U/L	▲		▲		μmol/L/sec	▲		▲		
DiaSys Diagnostic Systems (IFCC, DGKC 1994) (14211) (5)	U/L	▲		▲		μmol/L/sec	▲		▲		
Fortress Diagnostics (Lactate to Pyruvate, UV) (BXC0241) (5)	U/L	▲		▲		μmol/L/sec	▲		▲		
Fortress Diagnostics (Pyruvate to Lactate, DGKC) (BXC0242) (5)	U/L	▲		▲		μmol/L/sec	▲		▲		
Reckon Diagnostics (L–P, UV–Kinetic) (5)	U/L	▲		▲		μmol/L/sec	▲		▲		
Sekisui Medical Pureauto S LD (5)	U/L	170	144 – 195	364	310 – 419	μmol/L/sec	2.84	2.40 – 3.26	6.08	5.18 – 7.00	
Sekisui Medical Pureauto S LD-P (5)	U/L	353	300 – 405	846	719 – 973	μmol/L/sec	5.90	5.01 – 6.76	14.1	12.0 – 16.2	
LAP ARYLAMIDASE (1)											
Sekisui Medical Pureauto LAP (5)	U/L	41.0	35.0 – 47.0	22.0	19.0 – 25.0	μmol/L/sec	0.685	0.585 – 0.785	0.367	0.317 – 0.418	
LIPASE											
Agappe Diagnostics Ltd. (Methyl resorufin) (5)	U/L	▲		▲		μmol/L/sec	▲		▲		
ANALYTICON / Bicon: Fluitest Lipase (Colorimetric) (5)	U/L	41.5	35.3 – 47.7	69.3	58.9 – 79.7	μmol/L/sec	0.693	0.590 – 0.797	1.16	0.984 – 1.33	
DiaSys Diagnostic Systems (Enzymatic colorimetric test) (14321) (5)	U/L	▲		▲		μmol/L/sec	▲		▲		
MAGNESIUM											
Agappe Diagnostics Ltd. (Xylidyl blue)	mg/dL	▲		▲		mmol/L	▲		▲		
DiaSys Diagnostic Systems (Xylidyl blue) (14610)	mg/dL	▲		▲		mmol/L	▲		▲		
Fortress Diagnostics (Calmagite) (BXC0351)	mg/dL	▲		▲		mmol/L	▲		▲		
Reckon Diagnostics (Calmagite)	mg/dL	▲		▲		mmol/L	▲		▲		
Sekisui Medical Clinimate MG	mg/dL	2.20	1.70 – 2.60	4.40	3.50 – 5.20	mmol/L	0.905	0.699 – 1.07	1.81	1.44 – 2.14	
PHOSPHORUS											
Agappe Diagnostics Ltd. (Molybdate UV)	mg/dL	▲		▲		mmol/L	▲		▲		
DiaSys Diagnostic Systems (Molybdate UV, substrate start) (15211)	mg/dL	▲		▲		mmol/L	▲		▲		
Fortress Diagnostics (UV Molybdate) (BXC0301)	mg/dL	▲		▲		mmol/L	▲		▲		
Reckon Diagnostics (Molybdate UV)	mg/dL	▲		▲		mmol/L	▲		▲		
Sekisui Medical Clinimate IP	mg/dL	3.30	2.60 – 3.90	7.50	6.00 – 9.00	mmol/L	1.07	0.840 – 1.26	2.42	1.94 – 2.91	
Sekisui Medical Clinimate IP-2	mg/dL	3.50	2.80 – 4.10	7.50	6.00 – 9.00	mmol/L	1.13	0.904 – 1.32	2.42	1.94 – 2.91	
POTASSIUM											
Reckon Diagnostics (TPB)	mEq/L	▲		▲		mmol/L	▲		▲		
Sekisui Medical Internal Standard Solution -K/-B, Dilutent -K/-B	mEq/L	3.90	3.50 – 4.30	6.20	5.80 – 6.60	mmol/L	3.90	3.50 – 4.30	6.20	5.80 – 6.60	
PROTEIN, TOTAL											
Agappe Diagnostics Ltd. (Biuret)	g/dL	▲		▲		g/L	▲		▲		
DiaSys Diagnostic Systems (Biuret with sample blank) (12311)	g/dL	▲		▲		g/L	▲		▲		
DiaSys Diagnostic Systems (Biuret without sample blank) (12311)	g/dL	▲		▲		g/L	▲		▲		
Fortress Diagnostics (Biuret) (BXC0171)	g/dL	▲		▲		g/L	▲		▲		
Reckon Diagnostics (Biuret)	g/dL	▲		▲		g/L	▲		▲		
Sekisui Medical Clinimate, Autosea, Qualigent TP	g/dL	6.70	6.10 – 7.40	4.30	3.90 – 4.80	g/L	67.0	61.0 – 74.0	43.0	39.0 – 48.0	
SODIUM											
Reckon Diagnostics (Uranyl Acetate)	mEq/L	▲		▲		mmol/L	▲		▲		
Sekisui Medical Internal Standard Solution -K/-B, Dilutent -K/-B	mEq/L	148	136 – 160	127	117 – 137	mmol/L	148	136 – 160	127	117 – 137	
TRANSFERRIN (1)											
Agappe Diagnostics Ltd. (Turbidimetric Immunoassay)	mg/dL	▲		▲		g/L	▲		▲		
DiaSys Diagnostic Systems (Immunoturbidimetric) (17252)	mg/dL	▲		▲		g/L	▲		▲		

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	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
TRIGLYCERIDES										
Agappe Diagnostics Ltd. (GPO-PAP)	mg/dL	▲		▲		mmol/L	▲		▲	
DiaSys Diagnostic Systems (GPO-PAP) (15760 + 15710)	mg/dL	▲		▲		mmol/L	▲		▲	
Fortress Diagnostics (GPO-PAP Liquid) (BXC0271)	mg/dL	▲		▲		mmol/L	▲		▲	
Fortress Diagnostics (GPO-PAP Lyophilized) (BXC0272)	mg/dL	▲		▲		mmol/L	▲		▲	
Reckon Diagnostics (GPO, Enzymatic)	mg/dL	▲		▲		mmol/L	▲		▲	
Sekisui Medical Cholestest, Qualigent TG	mg/dL	191	172 – 210	84.0	75.0 – 92.0	mmol/L	2.16	1.94 – 2.37	0.949	0.848 – 1.04
Sekisui Medical Pureauto S, Auto sera S TG-N	mg/dL	193	174 – 213	84.0	75.0 – 92.0	mmol/L	2.18	1.97 – 2.41	0.949	0.848 – 1.04
UREA (8)										
Agappe Diagnostics Ltd. (Modified Berthelot)	mg/dL	▲		▲		mmol/L	▲		▲	
Agappe Diagnostics Ltd. (Urease GLDH)	mg/dL	▲		▲		mmol/L	▲		▲	
DiaSys Diagnostic Systems (Urease, UV) (13101)	mg/dL	▲		▲		mmol/L	▲		▲	
Fortress Diagnostics (GLDH Kinetic, Endpoint Liquid) (BXC0123)	mg/dL	▲		▲		mmol/L	▲		▲	
Fortress Diagnostics (GLDH Kinetic, Endpoint Lyophilized) (BXC0121)	mg/dL	▲		▲		mmol/L	▲		▲	
Reckon Diagnostics (Modified Berthelot)	mg/dL	▲		▲		mmol/L	▲		▲	
UREA NITROGEN (8)										
Sekisui Medical Pureauto S UN	mg/dL	16.9	13.5 – 20.2	46.5	37.2 – 55.8	mmol/L	6.03	4.82 – 7.21	16.6	13.3 – 19.9
URIC ACID										
Agappe Diagnostics Ltd. (Uricase-PAP)	mg/dL	▲		▲		μmol/L	▲		▲	
DiaSys Diagnostic Systems (Enzymatic colorimetric test TBHBA) (13021)	mg/dL	▲		▲		μmol/L	▲		▲	
DiaSys Diagnostic Systems (Enzymatic colorimetric test T00S) (13001)	mg/dL	▲		▲		μmol/L	▲		▲	
Fortress Diagnostics (Uricase PAP Liquid) (BXC0602)	mg/dL	▲		▲		μmol/L	▲		▲	
Fortress Diagnostics (Uricase PAP Lyophilized) (BXC0601)	mg/dL	▲		▲		μmol/L	▲		▲	
Fortress Diagnostics (Uricase PAP Monoliquid) (BXC0603)	mg/dL	▲		▲		μmol/L	▲		▲	
Reckon Diagnostics (Uricase)	mg/dL	▲		▲		μmol/L	▲		▲	
Sekisui Medical Pureauto S, Auto sera S, Qualigent UA	mg/dL	4.80	4.10 – 5.50	10.0	8.50 – 11.5	μmol/L	286	244 – 327	595	506 – 684

INTERNATIONAL USE ONLY -

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INSTRUMENT

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

	Units	Level 1 - 14411		Level 2 - 14412		SI	Level 1 - 14411		Level 2 - 14412	
		Mean	Range	Mean	Range		Mean	Range	Mean	Range
ABBOTT ARCHITECT cSYSTEMS / AEROSET										
Alpha Hydroxybutyrate Dehydrogenase-HBDH (UV) (MULTIGENT-Sentinel) (1) (5)	U/L	\$		\$		μmol/L/sec	\$		\$	
Copper (Enzymatic - Sentinel) (1)	μg/dL	80.5	64.4 – 96.6	46.5	37.2 – 55.8	μmol/L	12.6	10.1 – 15.2	7.31	5.84 – 8.76
BECKMAN COULTER AU400 / 600 / 640 / 680 / 2700 / 5400										
Lithium (Infinity) (Europe/Asia)	mEq/L	\$		\$		mmol/L	\$		\$	
ROCHE COBAS INTEGRA										
Bilirubin, Total (DPD) (BLT2)	mg/dL	1.05	0.842 – 1.26	4.08	3.26 – 4.90	μmol/L	18.0	14.4 – 21.6	69.8	55.8 – 83.7
Cholinesterase (Butyrylthiocholine (Trinder)) (CHE2) (1) (5)	U/L	4231	3385 – 5077	1931	1545 – 2317	μmol/L/sec	70.7	56.5 – 84.8	32.2	25.8 – 38.7
ROCHE HITACHI/MODULAR										
Bilirubin, Total (DPD, Granular)	mg/dL	1.03	0.820 – 1.23	3.95	3.16 – 4.74	μmol/L	17.5	14.0 – 21.0	67.5	54.0 – 81.0
Cholinesterase (Butrylthiocholine (Trinder)) (CHE2) (1) (5)	U/L	4353	3482 – 5223	1937	1549 – 2324	μmol/L/sec	72.7	58.2 – 87.2	32.3	25.9 – 38.8
ROCHE / HITACHI COBAS C SYSTEMS										
Bilirubin, Total (DPD) (BLT2) (Liquid)	mg/dL	1.01	0.805 – 1.21	3.90	3.12 – 4.68	μmol/L	17.2	13.8 – 20.6	66.8	53.4 – 80.1
Cholinesterase (Butrylthiocholine (Trinder)) (Gen. 2) (1) (5)	U/L	▲		▲		μmol/L/sec	▲		▲	
SIEMENS ADVIA CHEMISTRY SYSTEMS										
Alkaline Phosphatase (ALP) (PNPP, DEA Buffer) (ALPDEA) (5)	U/L	164	131 – 196	662	530 – 795	μmol/L/sec	2.73	2.19 – 3.28	11.1	8.85 – 13.3
TOSHIBA										
Alanine Aminotransferase (ALT/SGPT) (UV with P5P) (JSCC) (5)	U/L	35.0	28.0 – 42.0	104	84.0 – 124	μmol/L/sec	0.585	0.468 – 0.701	1.74	1.40 – 2.07
Albumin (Bromcresol green)	g/dL	4.10	3.50 – 4.70	2.80	2.40 – 3.20	g/L	41.0	35.0 – 47.0	28.0	24.0 – 32.0
Alkaline Phosphatase (ALP) (PNPP, EAE Buffer-JSCC) (5)	U/L	290	210 – 370	1182	882 – 1482	μmol/L/sec	4.84	3.51 – 6.18	19.7	14.7 – 24.7
Amylase (G7 PNP) (5)	U/L	72.0	52.0 – 92.0	686	526 – 846	μmol/L/sec	1.20	0.868 – 1.54	11.5	8.78 – 14.1
Apolipoprotein A-I (Immunoturbidimetric) (1)	mg/dL	134	100 – 168	79.0	59.0 – 99.0	g/L	1.34	1.00 – 1.68	0.790	0.590 – 0.990
Apolipoprotein B (Immunoturbidimetric) (1)	mg/dL	69.0	51.0 – 87.0	39.0	29.0 – 49.0	g/L	0.690	0.510 – 0.870	0.390	0.290 – 0.490
Aspartate Aminotransferase (AST/SGOT) (UV with P5P) (JSCC) (5)	U/L	38.0	30.0 – 46.0	193	153 – 233	μmol/L/sec	0.635	0.501 – 0.768	3.22	2.56 – 3.89
Bilirubin, Direct (Oxidation by Nitrite)	mg/dL	0.400	0.100 – 0.700	1.80	1.20 – 2.40	μmol/L	6.84	1.71 – 12.0	30.8	20.5 – 41.0
Bilirubin, Total (Oxidation by Nitrite)	mg/dL	1.30	0.900 – 1.70	4.40	3.40 – 5.40	μmol/L	22.2	15.4 – 29.1	75.2	58.1 – 92.3
C3 Complement (Immunoturbidimetric) (1)	mg/dL	139	105 – 173	91.0	69.0 – 113	g/L	1.39	1.05 – 1.73	0.910	0.690 – 1.13
Calcium (o-cresolphthalein complexone)	mg/dL	9.40	8.40 – 10.4	12.6	11.2 – 14.0	mmol/L	2.35	2.10 – 2.60	3.15	2.80 – 3.50
Ceruloplasmin (Immunoturbidimetric) (Sentinel) (1)	mg/dL	26.0	20.0 – 32.0	16.0	12.0 – 20.0	mg/L	260	200 – 320	160	120 – 200
Chloride (ISE Indirect)	mEq/L	98.0	93.0 – 103	82.0	78.0 – 86.0	mmol/L	98.0	93.0 – 103	82.0	78.0 – 86.0
Cholesterol, High Density Lipoprotein (HDL) (Direct measure) (3)	mg/dL	65.0	55.0 – 75.0	18.0	12.0 – 24.0	mmol/L	1.68	1.42 – 1.94	0.466	0.311 – 0.622
Cholesterol, Low Density Lipoprotein (LDL) (Direct measure)	mg/dL	104	74.0 – 134	42.0	30.0 – 54.0	mmol/L	2.69	1.92 – 3.47	1.09	0.777 – 1.40
Cholesterol, Total (Cholesterol oxidase, esterase, catalase)	mg/dL	242	212 – 272	104	90.0 – 118	mmol/L	6.27	5.49 – 7.04	2.69	2.33 – 3.06
Creatine Kinase (CK) (NAC activated) (IFCC/JSCC) (5)	U/L	131	101 – 161	417	317 – 517	μmol/L/sec	2.19	1.69 – 2.69	6.96	5.29 – 8.63
Creatinine (Jaffe-kinetic)	mg/dL	2.50	2.10 – 2.90	6.00	5.00 – 7.00	μmol/L	221	186 – 256	530	442 – 619
Gamma Glutamyltransferase (GGT) (5)	U/L	61.0	49.0 – 73.0	154	124 – 184	μmol/L/sec	1.02	0.818 – 1.22	2.57	2.07 – 3.07
Glucose (Hexokinase)	mg/dL	87.0	77.0 – 97.0	276	246 – 306	mmol/L	4.83	4.27 – 5.38	15.3	13.7 – 17.0
Haptoglobin (Immunoturbidimetric) (1)	mg/dL	105	77.0 – 133	70.0	52.0 – 88.0	g/L	1.05	0.770 – 1.33	0.700	0.520 – 0.880
Immunoglobulin A (IgA) (Immunoturbidimetric) (1)	mg/dL	192	144 – 240	116	86.0 – 146	g/L	1.92	1.44 – 2.40	1.16	0.860 – 1.46
Immunoglobulin G (IgG) (Immunoturbidimetric) (1)	mg/dL	942	706 – 1178	605	453 – 757	g/L	9.42	7.06 – 11.8	6.05	4.53 – 7.57
Immunoglobulin M (IgM) (Immunoturbidimetric) (1)	mg/dL	88.0	66.0 – 110	50.0	38.0 – 62.0	g/L	0.880	0.660 – 1.10	0.500	0.380 – 0.620
Iron (Nitroso-PSAP)	μg/dL	222	182 – 262	64.0	52.0 – 76.0	μmol/L	39.7	32.6 – 46.9	11.5	9.31 – 13.6
Iron-Binding Capacity, Unsaturated (UIBC) (Nitroso-PSAP) (1)	μg/dL	171	137 – 205	160	128 – 192	μmol/L	30.6	24.5 – 36.7	28.6	22.9 – 34.4
Lactate (Lactic Acid) (Lactate to Pyruvate)	mg/dL	37.5	27.5 – 47.5	8.60	6.20 – 11.0	mmol/L	4.16	3.05 – 5.27	0.955	0.688 – 1.22
Lactate Dehydrogenase (LDH) (JSCC) (5)	U/L	159	129 – 189	349	289 – 409	μmol/L/sec	2.66	2.15 – 3.16	5.83	4.83 – 6.83
Lipase (Enzymatic, colorimetric) (5)	U/L	38.0	26.0 – 50.0	86.0	60.0 – 112	μmol/L/sec	0.635	0.434 – 0.835	1.44	1.00 – 1.87
Magnesium (Xylydyl blue)	mg/dL	2.00	1.40 – 2.60	4.10	2.90 – 5.30	mmol/L	0.823	0.576 – 1.07	1.69	1.19 – 2.18
Phosphorus (Phosphomolybdate reduction)	mg/dL	3.40	3.00 – 3.80	7.50	6.70 – 8.30	mmol/L	1.10	0.969 – 1.23	2.42	2.16 – 2.68
Potassium (ISE Indirect)	mEq/L	3.90	3.40 – 4.40	6.10	5.60 – 6.60	mmol/L	3.90	3.40 – 4.40	6.10	5.60 – 6.60
Protein, Total (Biuret, no serum blank, end point)	g/dL	6.90	6.30 – 7.50	4.40	4.00 – 4.80	g/L	69.0	63.0 – 75.0	44.0	40.0 – 48.0
Sodium (ISE Indirect)	mEq/L	146	142 – 150	125	121 – 129	mmol/L	146	142 – 150	125	121 – 129
Transferrin (Immunoturbidimetric) (1)	mg/dL	248	186 – 310	164	124 – 204	g/L	2.48	1.86 – 3.10	1.64	1.24 – 2.04
Triglycerides (Enzymatic, Endpoint)	mg/dL	194	154 – 234	87.0	67.0 – 107	mmol/L	2.19	1.74 – 2.64	0.983	0.757 – 1.21
Urea Nitrogen (Urease, UV) (8)	mg/dL	16.2	12.2 – 20.2	44.3	34.3 – 54.3	mmol/L	5.78	4.36 – 7.21	15.8	12.2 – 19.4
Uric Acid (Uricase, colorimetric)	mg/dL	4.60	4.00 – 5.20	9.80	8.60 – 11.0	μmol/L	274	238 – 309	583	512 – 654

## NOTES

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#### 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

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

#### Coagulation

Lyphocheck® Coagulation Control  
Liquichek™ D-dimer Control  
Lyphocheck® 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  
Lyphocheck® Diabetes Control  
Lyphocheck® Hemoglobin A1C Linearity Set  
Lyphocheck® Hemoglobin A2 Control  
Meter Trax™ Control

#### Drugs of Abuse

Liquichek™ Opiate Control  
Liquichek™ Qualitative Urine Toxicology Control  
Lyphocheck® 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

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

#### Immunology/Protein

Liquichek™ Elevated CRP Control  
Liquichek™ Immunology Control  
Lyphocheck® 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

Lyphocheck® Benzo/TCA Control-Set A  
Lyphocheck® Benzo/TCA Control-Set B  
Lyphocheck® Drug Free Serum  
Lyphocheck® Endocrine Control  
Liquichek™ Serum Volatiles Control  
Lyphocheck® Urine Bone Markers Control  
Lyphocheck® Urine Metals Control  
Lyphocheck® Whole Blood Control  
Lyphocheck® 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™ & Lyphocheck® Therapeutic Drug Monitoring Controls (TDM)  
Lyphocheck® 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, Abbott Park, Illinois  
Advanced Instruments, Norwood, Massachusetts  
Agappe Diagnostics, Pvt. Ltd., Kerala, India  
Alfa Wasserman, West Caldwell, New Jersey  
Beckman Coulter Inc., Brea, California  
Beckman Coulter Inc., Chaska, Minnesota  
Biocon Diagnostik GmbH, Burbach, Germany  
Catachem Inc., Bridgeport, Connecticut  
Clinical Data, Inc., Newton, Massachusetts  
DiaSys Diagnostic Systems, Holzheim, Germany  
Dr. Müller Gerätebau, GmbH, Freital, Germany  
EFK Diagnostics, GmbH, Barleben, Germany  
Fortress Diagnostics Ltd., Antrim, Northern Ireland, United Kingdom  
Greiner, Kremsmünster, Austria

Kabe Labortechnik GmbH, Nümbrecht-Elsenroth, Germany  
Nova Biomedical, Waltham, Massachusetts  
Ortho-Clinical Diagnostics, A Johnson and Johnson Company, Rochester, New York  
Pointe Scientific, Inc., Canton, Michigan  
Reckon Diagnostics, Pvt. Ltd., Gujarat, India  
Roche Diagnostics Corporation, Indianapolis, Indiana  
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  
Toshiba Medical Systems Corporation, Tochigi, Japan  
Wako Chemicals GmbH, Neuss, Germany




Bio-Rad  
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Lyphochek®

4030A

## Assayed Chemistry Control

1

Level 1  
12 x 5 mL

IVD



8°C

LOT

14411

CE 0459



2°C

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BIO-RAD

C-315-5

Lyphochek®

4030B

## Assayed Chemistry Control

2

Level 2  
12 x 5 mL

IVD



8°C

LOT

14412

CE 0459



2°C

EXP

2014-04-30

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\*+M235QC31052/\$\$204301414117\*



\*+M235QC31552/\$\$20430141412D\*