



**ASSAYED HUMAN SERA
LEVEL 3**

**SERUM DE CONTROLE HUMAIN
NIVEAU 3**

**HUMAN KONTROLLSERUM
LEVEL 3**

**SUERO HUMANO ENSAYADO
NIVEL 3**

CAT. NO. KG1532/KG2611

Ch.-B.: 506UE

Verw. bis: 12/2014

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SUERO HUMANO ENSAYADO NIVEL 3

Cat. No./N°Cat./Best.-Nr./Número de Catálogo	KG 1532 KG 2611 (Combined kit)
Lot. No./N° Lot/CH-B/Número de Lote	506UE
Size/Cond ^t /Inhalt/Tamaño	20 x 5 ml 5 x 5 ml 5 x 5 ml (of each level)
Expiry/Date de péremption/Verfall/Expiración	12/2014

Carefully reconstitute each vial of lyophilised serum with exactly **5 ml** of distilled water.

Reconstituer avec précaution chaque flacon de sérum lyophilisé avec exactement **5 ml** d'eau distillée.

Sorgfältig Inhalt einer Flasche Lyophilisat mit genau **5 ml** destilliertem Wasser auflösen.

Reconstituir con cuidado cada vial de suero liofilizado con exactamente **5 ml** de agua destilada.

This booklet includes/Le manuel d'instructions inclus/Deises heft enthält/Este manual incluye:

Product Specification/Spécificités Produkt Angaben/Especificación del Producto	Page 2 - 7
Method Values/Vieurs par méthode/Methoden Werte Valores de Método	Page 8 - 17
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NOTES

® All trademarks recognised.

- (1) Applies only in Germany. Ranges established according to the Guidelines of the Federal Chamber of Physicians in Germany.
- (2) Values established by reference laboratories officially recognised by the Federal Chamber of Physicians in Germany.
- (3) DGKC : German Society for Clinical Chemistry
- (4) IFCC : International Federation of Clinical Chemistry
- (5) SCE : Scandinavian Committee on Enzymes

NOTES

- (1) Valable uniquement en Allemagne. Les fourchettes sont établies en fonction des recommandations de la Chambre Fédérale Allemande des Médecins.
- (2) Valeurs établies au sein de laboratoires de références accrédités par la Chambre Fédérale Allemande des Médecins.
- (3) DGKC : Société Germanique de Chimie Clinique
- (4) IFCC : Fédération Internationale de Chimie Clinique
- (5) SCE : Comité Scandinave pour les Enzymes

HINWEISE

- (1) Die Bereiche 3s wurden entsprechend den Richtlinien der deutschen Bundesärztekammer ermittelt.
- (2) Die Referenzmethodenwerte wurden durch Referenzlaboratorien ermittelt, die von der Deutschen Bundesärztekammer anerkannt sind.
- (3) DGKC : Deutsche Gesellschaft für Klinische Chemie
- (4) IFCC : Internationale Gesellschaft für Klinische Chemie
- (5) SCE : Skandinavische Gesellschaft für Klinische Chemie

NOTAS

- (1) Solamente es aplicable en Alemania. Los rangos se establecen de acuerdo con las reglas de la Cámara Federal de Médicos en Alemania.
- (2) Valores establecidos por laboratorios de referencia oficialmente reconocidos por la Cámara Federal de Médicos en Alemania.
- (3) DGKC : Sociedad Alemana de Química Clínica
- (4) IFCC : Federación Internacional de Química Clínica
- (5) SCE : Comité Escandinavo de Enzimas

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INTENDED USE

BGT BIOGENTECHNOLOGIES Human-Sera are lyophilised human based control sera for use in the quality control of diagnostic assays. Human-sera can be supplied as an assayed serum for control of accuracy or as a precision serum for control of reproducibility. Constituent concentrations are available at 2 levels.

VALUE ASSIGNMENT

Each batch of assayed human serum is submitted to Reference Laboratories for assignment against international Reference Standards. Where International Reference standards are unavailable, Reference methods are used. Values are also collected from approx. 3000 laboratories worldwide and using a unique statistical analysis a value is assigned. With each batch a control range is provided for individual parameters and each parameter method. The control range is equivalent to the assigned mean ± 2 S.D. This results in an assayed serum with extremely accurate values, which may be confidently used by laboratories to ensure the accuracy of their methods.

PREPARATION

Procedure

1. Open the vial very carefully, avoiding any loss of material.
2. Reconstitute in the appropriate accurately measured volume of distilled water at +20 to +25°C.
3. Replace the rubber stopper, close vial and leave to stand for 30 minutes out of bright light before use.
4. Ensure that contents are completely dissolved by swirling gently.
5. After 30 minutes invert vial to ensure that all traces of dry material are dissolved.
6. Do not shake the vial.

The serum can then be used with manual tests or with automated instruments. The serum should only be reconstituted using this procedure.

STABILITY

The serum is stable for 4 years after date of manufacture when stored at a constant +4°C. The expiry date is illustrated on the side of each pack. Once reconstituted the components of the serum are stable for 8 hours at +25°C or 7 days at +4°C and at least 1 month when frozen once at -20°C (see limitations).

LIMITATIONS

For Total & Prostatic Acid Phosphatase and Aldolase the material should be stabilised by adding 1 drop (25-30µl) of 0.7M Acetic acid solution to 1ml of the serum. After stabilisation Total & Prostatic Acid Phosphatase are stable for at least 2 hours at +25°C, at least 2 days at +4°C and at least 1 month when frozen once at -20°C, Aldolase will be stable for at least 8 hours at +2 to +8°C. Alkaline Phosphatase levels in the reconstituted serum will rise over the stability period. It is recommended that the reconstituted serum be allowed to stand for 1 hour at +25°C before measurement.

Bilirubin in the serum is light sensitive and it is recommended that the serum be stored in the dark. Stored in the dark it is stable for at least 4 days at 2° - 8°C. Do not store at +15°C to +25°C. Do not freeze.

Bacterial contamination of the reconstituted serum will cause reductions in the stability of many components.

Different lot numbers of this control should not be interchanged as the values assigned to the controls vary from lot to lot. The control should not be used as a calibration material.

WARNINGS/PRECAUTIONS

Human source material from which this product has been derived has been tested at donor level for the Human Immunodeficiency Virus (HIV 1, HIV 2) antibody, Hepatitis B Surface Antigen (HbsAg), and Hepatitis C Virus (HCV) antibody and found to be NON-REACTIVE. FDA approved methods have been used to conduct these tests.

However, since no method can offer complete assurance as to the absence of infectious agents, this material and all patient samples should be handled as though capable of transmitting infectious diseases and disposed of accordingly.

For **IN VITRO** diagnostic use only.

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CARACTERISTIQUES

Les sérums de contrôle humains **BGT BIOGENTECHNOLOGIES** sont des sérums lyophilisés dont la matrice possède une origine humaine. Ces sérums permettent de contrôler la qualité des dosages. Ces sérums humains peuvent être utilisés comme sérums titrés pour le contrôle de l'exactitude ou comme sérums de précision pour le contrôle de la reproductibilité. Les composants sont disponibles à deux taux différents.

SERUM DE CONTROLE HUMAIN TITRE

Chaque lot de sérum de contrôle humain est évalué par des Laboratoires de Référence afin d'être reconnu au niveau international comme référence standardisée. Dans les pays où ces références standardisées au niveau international ne sont pas reconnues, les méthodes de référence sont alors utilisées. Les valeurs sont également recueillies dans plus de 3000 laboratoires du monde entier. Les valeurs attribuées sont calculées à partir d'analyse statistiques uniques. Pour chaque lot, une fourchette de valeurs est fournie pour chaque paramètre et pour chaque méthode. Cette fourchette correspond à la moyenne \pm 2 écart-types. Cela se résume en un sérum de contrôle humain avec des valeurs extrêmement précises, et qui peut être utilisé en confiance par les laboratoires pour garantir la précision de leurs méthodes.

PREPARATION

Procédure

1. Ouvrir le flacon avec précaution en évitant toute perte de matériel.
2. Reconstituer le sérum avec le volume mesuré exactement d'eau distillée entre +20 et +25°C.
3. Replacer le bouchon. Fermer le flacon et laisser reposer pendant 30 minutes à l'abri de la lumière.
4. S'assurer que tous les composés sont complètement dissous en mélangeant doucement par retournements successifs.
5. Après 30 minutes, retourner le flacon afin de dissoudre toute trace de matériel lyophilisé.
6. Ne pas agiter le flacon.

Ce sérum peut être utilisé pour des dosages manuels ou automatisés. Il doit être reconstitué conformément à cette procédure.

STABILITE

Le sérum est stable pendant 4 ans après la date de fabrication lorsqu'il est conservé à une température constante de +4°C. La date de péremption est indiquée sur chaque coffret ainsi que sur chaque flacon.

Une fois reconstitués, les composés sériques sont stables 8 heures à +25°C ou 7 jours à +4°C et au moins un mois à -20°C (si congelé une seule fois).

REMARQUES

Pour les Phosphatases Acides et Totales ainsi que l'Aldolase, le sérum doit être stabilisé par l'addition d'une goutte (25-30 μ l) d'acide acétique à 0,7 M par ml de sérum. Après cette addition, l'Acide Phosphatase Totale et Prostatique est stable au moins 2 heures à +25°C, au moins 2 jours à +4°C et au moins 1 mois à 20°C (si congelé une seule fois). L'Aldolase est stable au moins 8 heures entre +2 et +8°C.

Le taux de Phosphatase Alcaline dans le sérum reconstitué augmente tout au long de la période de stabilité. Il est conseillé de laisser le sérum reconstitué reposer pendant 1 heure à +25°C avant toute mesure.

La Bilirubine dans le sérum reconstitué est sensible à la lumière. Il est conseillé de conserver le sérum à l'abri de la lumière. Dans ces conditions, le sérum est stable au moins 4 jours à 2° - 8°C. Ne pas conserver entre +15°C et +25°C. Ne pas congeler.

Une contamination bactérienne du sérum reconstitué peut être à l'origine d'une diminution de la stabilité de divers composés. Les sérums provenant de différents lots ne doivent pas être intervertis car les valeurs de titration varient d'un lot à un autre. Ces sérums ne doivent pas être utilisés comme sérum de calibration.

PRECAUTIONS

Ce sérum a été testé pour la présence d'anticorps HIV (virus de l'immunodéficience humaine) et HCV et d'antigène de surface de l'hépatite B. Ces tests, réalisés selon les méthodes reconnues par la FDA, se sont tous révélés négatifs. Néanmoins, aucune méthode n'offrant l'assurance complète de l'absence d'agents infectieux, ce sérum et tous les prélèvements humains doivent être manipulés comme s'ils pouvaient transmettre une maladie infectieuse.

Uniquement pour usage **IN VITRO**.

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BESCHAFFENHEIT

BGT BIOGENTECHNOLOGIES Humansen sind lyophilisierte Kontrollseren humanen Ursprungs. Humansen sind lieferbar als Richtigkeitskontrollserum zur Überprüfung der Richtigkeit, zum anderen als Präzisionskontrollserum zur Bestimmung der Präzision, wobei die Konzentrationsbereiche wählbar im normalen oder im pathologischen Bereich liegen.

HUMANES RICHTIGKEITSKONTROLLSERUM

Festlegung der Werte

Jede Charge des humanen Richtigkeitskontrollserums wird von Laboratorien mit internationalen Referenznormen überprüft. Falls internationale Referenznormen nicht verfügbar sind, werden Referenzmethoden benutzt. Werte werden auch von ca. 3000 Laboratorien weltweit eingesammelt und der Wert wird anhand einer einzigen statistischen Analyse festgelegt. Jede Charge wird versehen mit Angaben zum Kontrollbereich der individuellen Parameter und jeder Parametermethode. Der Kontrollbereich ist entsprechend zum geprüften Mittelwert \pm 2S.D. Folglich hat das humane Richtigkeitskontrollserum äußerst genaue Werte, wodurch die Genauigkeit der Werte sichergestellt werden und die Laboratorien sie zuversichtlich anwenden können.

AUFBEREITUNG

Anleitung

1. Flasche vorsichtig, ohne Verlust an Substanz öffnen.
2. Das angegebene Volumen an frisch destilliertem Wasser bei einer Temperatur von +20 bis +25°C zugeben.
3. Flasche wieder verschließen und 30 Minuten ohne direkten Lichteinfall stehenlassen.
4. Durch leichtes Schwenken der Flasche überprüfen, ob Inhalt komplett gelöst ist.
5. Nach 30 Minuten die Flasche umstürzen, damit sich die Substanzen komplett auflösen.
6. Flasche auf keinen Fall schütteln.

Dieses Kontrollserum ist sowohl für manuelle, als auch für automatisierte Testverfahren geeignet. Es ist nur unter Beachtung dieser Vorschrift zu rekonstituieren.

STABILITÄT

Das Serum ist 4 Jahre nach Herstellung unter ständiger Aufbewahrung bei +4°C haltbar. Das Verfalldatum ist seitlich auf jeder Packung aufgedruckt. Nach Rekonstitution ist das Kontrollserum für 8 Stunden bei +25°C oder für 7 Tage bei +4°C oder für 1 Monat in gefrorenem Zustand bei -20°C stabil (siehe nachfolgende Anmerkungen).

ANMERKUNGEN

Gesamte- und Prostatistische Säure Phosphatase sowie Aldolase sollten unter Zugabe von 1 Tropfen (25-30 μ l) 0,7M Essigsäure auf 1 ml des Serums stabilisiert werden. Nach dieser Zugabe sind Gesamte- und Prostatistische Säure Phosphatase mindestens 2 Stunden bei +25°C, mindestens 2 Tage bei +4°C und mindestens einen Monat in gefrorenem Zustand bei -20°C haltbar. Aldolase hat eine Stabilität von mindestens 8 Stunden bei +2 bis +8°C.

Die Werte für die Alkalische Phosphatase steigen im aufgelösten Zustand während der Haltbarkeitsdauer an. Aus diesem Grunde soll das rekonstituierte Serum vor Messung der AP eine Stunde bei +25°C stehen. Bilirubin ist lichtempfindlich. Deshalb sollte das Kontrollserum im Dunkeln aufbewahrt werden. Hier ist es bei 2° - 8°C mindestens 4 Tage stabil. Nicht lagern bei +15°C - +25°C Grad. Nicht einfrieren. Bakterielle Kontamination des rekonstituierten Kontrollmaterials verringert die Stabilität vieler Komponenten. Verschiedene Chargen-Nummern dieser Kontrolle sollten nicht vermischt werden, da die empfohlenen Werte von Charge zu Charge unterschiedlich sein können. Diese Kontrolle sollte nicht zur Kalibrierung benutzt werden.

SICHERHEITSHINWEISE

Das Kontrollserum ist auf HIV-Antikörper, HBsAg und HCV geprüft und nach FDA Methoden als negativ befunden worden. Jedoch ist keine Methode bekannt, die mit absoluter Sicherheit die Anwesenheit infektiösen Materials ausschließt, so daß das Kontrollserum wie eine Patientenprobe zu behandeln ist, um jegliches Infektionsrisiko zu vermeiden.

Nur für die **In Vitro** Diagnostik bestimmt.

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USO PREVISTO

Los sueros humanos **BGT BIOGENTECHNOLOGIES** son sueros de control liofilizados de origen humano, para uso en el control de calidad de determinaciones clínicas. Dichos sueros pueden ser suministrados como suero ensayado para un control de exactitud o como suero de precisión para un control de reproducibilidad. Las concentraciones de los componentes están disponibles en 2 niveles.

SUERO DE CONTROL ENSAYADO

Cada lote de suero de control ensayado se somete a Laboratorios de Referencia para asignar valores frente a Estandars de Referencia internacionales. Cuando no se disponga de Estandars de Referencia Internacionales, se utilizarán métodos de referencia. Los valores se recojen de aproximadamente 3000 laboratorios de todo el mundo y los valores se asignan a partir de un análisis estadístico único. Con cada lote se provee un rango control para cada parámetro y para cada método. El rango de control es equivalente a la media asignada ± 2 D.E. El resultado es un suero ensayado con valores extramadamente exactos, que se puede utilizar en los laboratorios con confianza para asegurar la precisión de sus métodos

PREPARACION

Procedimiento

1. Abrir el frasco muy cuidadosamente, evitando cualquier pérdida de material.
2. Reconstituir en el volumen apropiado, medido con exactitud, de agua destilada de +20°C y +25°C.
3. Volver a colocar el tapón de goma, cerrar el frasco y dejar reposar durante 30 minutos protegido de la luz, antes de usar.
4. Asegurarse de que el contenido está completamente disuelto girando suavemente el frasco.
5. Al cabo de 30 minutos invertir el frasco para asegurarse de que toda traza de material seco ha sido disuelta.
6. No agitar el frasco.

El suero puede ahora usarse con pruebas manuales o con analizadores automáticos. El suero deberá reconstituirse utilizando únicamente este procedimiento.

ESTABILIDAD

El suero es estable durante 4 años después de la fecha de fabricación, cuando se conserva a una temperatura constante de +4°C. La fecha de caducidad se indica en un lateral de cada paquete.

Una vez reconstituidos, los componentes del suero son estables durante 8 horas a +25°C, ó 7 días a +4°C y al menos 1 mes si se congela una vez a -20°C (véanse las limitaciones).

LIMITACIONES

Para la Fosfatasa Acida Total y Prostática, y la Aldolasa, el material debería estabilizarse añadiendo 1 gota (25-30 μ l) de solución de Acido Acético 0.7M a 1 ml del suero. Tras la estabilización, la Fosfatasa Acida Total y Prostática es estable durante al menos 2 horas a +25°C, al menos 2 días a +4°C y al menos 1 mes si se congela una vez a -20°C, la Aldolasa es estable al menos 8 horas entre +2 y +8°C.

Los niveles de Fosfatasa Alcalina en el suero reconstituido aumentarán durante el periodo de estabilidad. Se recomienda que se deje reposar el suero reconstituido durante 1 hora a +25°C antes de analizar.

La Bilirrubina en el suero es sensible a la luz, por lo que se recomienda que el suero se conserve en la obscuridad. Es estable cuando se conserva en un lugar oscuro durante al menos 4 días a 2° - 8°C. No conservar entre +15°C y +25°C. No congelar.

La contaminación bacteriana del suero reconstituido reduce la estabilidad de muchos de los componentes.

No se deberían intercambiar controles de lotes diferentes, ya que los valores asignados a los controles pueden variar de lote a lote. Este control no debería utilizarse como un material de calibración.

AVISO/PRECAUTIONES

Este suero ha sido analizado para los anticuerpos HIV, Hbs Ag y HCV, se ha encontrado que no es reactivo utilizando métodos aprobados por la FDA (Food and Drug Administration). Sin embargo, dado que ningún método puede ofrecer una total seguridad de ausencia de agentes infecciosos, este material y todas las muestras de pacientes deberán ser manejados como posibles transmisores de infecciones.

Solamente para uso diagnóstico **IN VITRO**

Abbott Architect c/ci Systems®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 50 6UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml		Verw. bis: 2014-12					
Parameter	Einheit	Zielwert	Bereich		1SD	2SD	Methoden
			von	bis			
Albumin	g/l	30.5	26.0	35.0	2.25	4.50	Bromocresol Green
	g/dl	3.05	2.60	3.50	0.23	0.45	
	g/l	29.2	24.8	33.6	2.20	4.40	Bromocresol Purple
	g/dl	2.92	2.48	3.36	0.22	0.44	
Alkaline Phosphatase	U/l	314	267	361	23.50	47.00	AMP optimised to IFCC 37°C
	U/l	311	264	358	23.50	47.00	AMP reduced interference 37°C
	U/l	313	266	360	23.50	47.00	AMP non-optimised 37°C
ALT (GPT)	U/l	134	107	161	13.50	27.00	Tris buffer no P5P IFCC/SFBC 37°C
Amylase Total	U/l	315	267	363	24.00	48.00	Abbott - blocked pNPG7 37°C
AST (GOT)	U/l	130	104	156	13.00	26.00	Tris buffer no P5P IFCC/SFBC 37°C
Bicarbonate	mmol/l	15.3	12.1	18.5	1.60	3.20	Enzymatic
Bile Acids	µmol/l	42.2	33.8	50.6	4.20	8.40	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	30.9	24.4	37.4	3.25	6.50	Diazo with Sulphanilic Acid
	mg/dl	1.81	1.43	2.19	0.19	0.38	
	µmol/l	30.8	24.3	37.3	3.25	6.50	Diazo with Dichloroaniline (DCA)
	mg/dl	1.80	1.42	2.18	0.19	0.38	
Bilirubin Total	µmol/l	83.9	66.3	102	8.80	17.60	Diazo with Dichloroaniline (DCA)
	mg/dl	4.91	3.88	5.94	0.52	1.03	
	µmol/l	85.4	67.5	103	8.95	17.90	Diazo with Sulphanilic Acid
	mg/dl	5.00	3.95	6.05	0.53	1.05	
	µmol/l	84.5	66.7	102	8.90	17.80	Diazonium ion
	mg/dl	4.94	3.90	5.98	0.52	1.04	

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Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Calcium	mmol/l	3.08	2.77	3.39	0.16	0.31	Arsenazo III
	mg/dl	12.3	11.1	13.5	0.60	1.20	
Chloride	mmol/l	115	106	124	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.27	6.33	8.21	0.47	0.94	Cholesterol Oxidase
	mg/dl	281	244	318	18.50	37.00	
CK Total	U/l	548	449	647	49.50	99.00	CK-NAC serum start (DGKC) 37°C
	U/l	541	444	638	48.50	97.00	CK-NAC substrate start (DGKC) 37°C
	U/l	552	452	652	50.00	100.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	376	301	451	37.50	75.00	Alkaline picrate no deproteinization
	mg/dl	4.25	3.40	5.10	0.43	0.85	
	µmol/l	381	305	457	38.00	76.00	Jaffe rate blanked
	mg/dl	4.31	3.45	5.17	0.43	0.86	
	µmol/l	367	294	440	36.50	73.00	IDMS traceable
	mg/dl	4.15	3.32	4.98	0.42	0.83	
Free T4	pmol/l	45.2	38.4	52.0	3.40	6.80	Abbott Architect
	ng/dl	3.53	3.00	4.06	0.27	0.53	
	pg/ml	35.3	30.0	40.6	2.65	5.30	Abbott Architect
gamma-GT	U/l	169	144	194	12.50	25.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	168	143	193	12.50	25.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	170	145	195	12.50	25.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
Glucose	mmol/l	15.5	13.1	17.9	1.20	2.40	Glucose dehydrogenase
	mg/dl	279	236	322	21.50	43.00	
	mmol/l	15.5	13.2	17.8	1.15	2.30	Hexokinase
	mg/dl	279	238	320	20.50	41.00	

Abbott Architect c/ci Systems®

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Glucose	mmol/l	15.5	13.2	17.8	1.15	2.30	Glucose oxidase
	mg/dl	279	238	320	20.50	41.00	
Iron	µmol/l	34.9	28.6	41.2	3.15	6.30	Colorimetric with ppt.
	µg/dl	195	160	230	17.50	35.00	
	µmol/l	35.1	28.7	41.5	3.20	6.40	Colorimetric without ppt.
	µg/dl	196	160	232	18.00	36.00	
Lactate	mmol/l	6.02	4.94	7.10	0.54	1.08	Colorimetric Lactate Oxidase
	mg/dl	54.2	44.5	63.9	4.85	9.70	
LD (LDH)	U/l	359	305	413	27.00	54.00	L->P 37°C
	U/l	360	306	414	27.00	54.00	L->P IFCC 37°C
Lipase	U/l	57	46	68	5.50	11.00	Other Colorimetric 37°C
Lithium	mmol/l	2.05	1.80	2.30	0.13	0.25	Spectrophotometric
	mg/dl	1.42	1.25	1.59	0.09	0.17	
Magnesium	mmol/l	1.66	1.46	1.86	0.10	0.20	Arsenazo III
	mg/dl	4.03	3.55	4.51	0.24	0.48	
Osmolality	mOsm/kg	350	280	420	35.00	70.00	Calculated
Phosphate Inorganic	mmol/l	2.29	1.95	2.63	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	7.10	6.05	8.15	0.53	1.05	
	mmol/l	2.26	1.92	2.60	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.01	5.95	8.07	0.53	1.06	
Potassium	mmol/l	6.02	5.54	6.50	0.24	0.48	ISE method - indirect
Protein Total	g/l	48.6	38.9	58.3	4.85	9.70	Biuret reaction end point
	g/dl	4.86	3.89	5.83	0.49	0.97	
	g/l	48.0	38.4	57.6	4.80	9.60	Biuret reaction kinetic
	g/dl	4.80	3.84	5.76	0.48	0.96	

Abbott Architect c/ci Systems®

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
PSA Total	ng/ml =	21.1	15.8	26.4	2.65	5.30	Abbott Architect
Sodium	mmol/l	158	150	166	4.00	8.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.07	0.86	1.29	0.11	0.22	Abbott Architect Ultrasensitive hTSH II
TIBC	µmol/l	50.0	39.5	60.5	5.25	10.50	Removal of excess free iron
	µg/dl	280	221	339	29.50	59.00	
	µmol/l	45.7	36.1	55.3	4.80	9.60	FE+UIBC(saturation with iron)
	µg/dl	255	202	308	26.50	53.00	
Total T3	nmol/l	3.71	2.78	4.64	0.47	0.93	Abbott Architect
	ng/ml	2.42	1.81	3.03	0.31	0.61	
	ng/dl	242	181	303	30.50	61.00	Abbott Architect
Total T4	nmol/l	198	148	248	25.00	50.00	Abbott Architect
	µg/dl	15.4	11.5	19.3	1.95	3.90	
	ng/ml	154	115	193	19.50	39.00	Abbott Architect
Triglycerides	mmol/l	2.92	2.45	3.39	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	258	217	299	20.50	41.00	
	mmol/l	2.93	2.46	3.40	0.24	0.47	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	259	218	300	20.50	41.00	
	mmol/l	2.92	2.46	3.38	0.23	0.46	L/G Kinase EP. no correction
	mg/dl	258	218	298	20.00	40.00	
	mmol/l	3.09	2.59	3.59	0.25	0.50	Lipase/Glycerol Dehydrogenase
	mg/dl	273	229	317	22.00	44.00	
Urea	mmol/l	20.2	17.2	23.2	1.50	3.00	Urease kinetic
	mg/dl	121	103	139	9.00	18.00	
	mmol/l	20.2	17.2	23.2	1.50	3.00	BUN
	mg/dl	56.7	48.2	65.2	4.25	8.50	

Abbott Architect c/ci Systems®

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Uric Acid (Urate)	mmol/l	0.56	0.49	0.63	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.41	8.18	10.6	0.62	1.23	
	mmol/l	0.56	0.49	0.63	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.37	8.16	10.6	0.61	1.21	

ABX Pentra 400®

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	30.3	25.7	34.9	2.30	4.60	Bromocresol Green
	g/dl	3.03	2.57	3.49	0.23	0.46	
Alkaline Phosphatase	U/l	343	292	394	25.50	51.00	AMP optimised to IFCC 37°C
	U/l	267	227	307	20.00	40.00	AMP optimised to IFCC 30°C
	U/l	219	187	251	16.00	32.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	147	118	176	14.50	29.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	109	87	131	11.00	22.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	83	66	100	8.50	17.00	Tris buffer no P5P IFCC/SFBC 25°C
AST (GOT)	U/l	134	107	161	13.50	27.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	91	72	110	9.50	19.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	64	51	77	6.50	13.00	Tris buffer no P5P IFCC/SFBC 25°C
Bilirubin Direct	µmol/l	26.8	21.1	32.5	2.85	5.70	Diazo with Dichloroaniline (DCA)
	mg/dl	1.57	1.23	1.91	0.17	0.34	
Bilirubin Total	µmol/l	89.6	70.8	108	9.40	18.80	Diazo with Dichloroaniline (DCA)
	mg/dl	5.24	4.14	6.34	0.55	1.10	
Calcium	mmol/l	3.30	2.97	3.63	0.17	0.33	Cresolphthalein complexone
	mg/dl	13.2	11.9	14.5	0.65	1.30	
Chloride	mmol/l	115	106	124	4.50	9.00	ISE direct
Cholesterol	mmol/l	7.65	6.65	8.65	0.50	1.00	Cholesterol Oxidase
	mg/dl	295	257	333	19.00	38.00	
CK Total	U/l	530	435	625	47.50	95.00	CK-NAC (IFCC) 37°C
	U/l	332	272	392	30.00	60.00	CK-NAC (IFCC) 30°C
	U/l	225	185	265	20.00	40.00	CK-NAC (IFCC) 25°C

ABX Pentra 400®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich				
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Creatinine	µmol/l	345	276	414	34.50	69.00	Alkaline picrate no deproteinization
	mg/dl	3.90	3.12	4.68	0.39	0.78	
	µmol/l	370	296	444	37.00	74.00	Creatinine PAP method
	mg/dl	4.18	3.34	5.02	0.42	0.84	
gamma-GT	U/l	168	143	193	12.50	25.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	132	113	151	9.50	19.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	104	88	120	8.00	16.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
Glucose	mmol/l	15.8	13.4	18.2	1.20	2.40	Hexokinase
	mg/dl	285	241	329	22.00	44.00	
	mmol/l	15.6	13.2	18.0	1.20	2.40	Glucose oxidase
	mg/dl	281	238	324	21.50	43.00	
Iron	µmol/l	35.1	28.8	41.4	3.15	6.30	Colorimetric without ppt.
	µg/dl	196	161	231	17.50	35.00	
LD (LDH)	U/l	733	623	843	55.00	110.00	P->L German methods 37°C
	U/l	529	450	608	39.50	79.00	P->L German methods 30°C
	U/l	372	316	428	28.00	56.00	P->L German methods 25°C
Magnesium	mmol/l	1.57	1.38	1.76	0.10	0.19	Xylidyl Blue
	mg/dl	3.82	3.35	4.29	0.24	0.47	
Phosphate Inorganic	mmol/l	2.40	2.04	2.76	0.18	0.36	Phosphomolybdate UV
	mg/dl	7.44	6.32	8.56	0.56	1.12	
Potassium	mmol/l	5.64	5.19	6.09	0.23	0.45	ISE method - direct
Protein Total	g/l	50.7	40.6	60.8	5.05	10.10	Biuret reaction end point
	g/dl	5.07	4.06	6.08	0.51	1.01	

ABX Pentra 400®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich				
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Sodium	mmol/l	153	145	161	4.00	8.00	ISE method - direct
Triglycerides	mmol/l	2.94	2.47	3.41	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	260	219	301	20.50	41.00	
Urea	mmol/l	20.5	17.4	23.6	1.55	3.10	Urease kinetic
	mg/dl	123	105	141	9.00	18.00	
	mmol/l	20.5	17.4	23.6	1.55	3.10	BUN
	mg/dl	57.5	48.9	66.1	4.30	8.60	
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	8.87	7.71	10.0	0.58	1.16	

ALFA WASSERMANN ACE/spACE/NExCT®				Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)			
Ch.-B.: 50 6UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	31.2	26.6	35.8	2.30	4.60	Bromocresol Green
	g/dl	3.12	2.66	3.58	0.23	0.46	
Bilirubin Direct	µmol/l	17.5	13.8	21.2	1.85	3.70	Diazo with Sulphanilic Acid
	mg/dl	1.02	0.807	1.23	0.11	0.21	
Bilirubin Total	µmol/l	97.0	76.7	117	10.15	20.30	Diazo with Sulphanilic Acid
	mg/dl	5.67	4.49	6.85	0.59	1.18	
Calcium	mmol/l	3.01	2.71	3.31	0.15	0.30	Arsenazo III
	mg/dl	12.1	10.9	13.3	0.60	1.20	
Cholesterol	mmol/l	7.22	6.28	8.16	0.47	0.94	Cholesterol Oxidase
	mg/dl	279	242	316	18.50	37.00	
Creatinine	µmol/l	368	294	442	37.00	74.00	Alkaline picrate no deproteinization
	mg/dl	4.16	3.32	5.00	0.42	0.84	
Glucose	mmol/l	16.0	13.6	18.4	1.20	2.40	Hexokinase
	mg/dl	288	245	331	21.50	43.00	
	mmol/l	16.4	13.9	18.9	1.25	2.50	Glucose oxidase
	mg/dl	296	250	342	23.00	46.00	
Iron	µmol/l	30.2	24.7	35.7	2.75	5.50	Colorimetric without ppt.
	µg/dl	169	138	200	15.50	31.00	
Protein Total	g/l	49.6	39.7	59.5	4.95	9.90	Biuret reaction end point
	g/dl	4.96	3.97	5.95	0.50	0.99	
Triglycerides	mmol/l	3.00	2.52	3.48	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	266	223	309	21.50	43.00	

ALFA WASSERMANN ACE/spACE/NExCT®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich				
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Urea	mmol/l	21.0	17.8	24.2	1.60	3.20	Urease kinetic
	mg/dl	126	107	145	9.50	19.00	
	mmol/l	21.0	17.9	24.1	1.55	3.10	BUN
	mg/dl	58.9	50.1	67.7	4.40	8.80	
Uric Acid (Urate)	mmol/l	0.61	0.54	0.69	0.04	0.08	Uricase peroxidase no ascorbate oxidase
	mg/dl	10.3	8.99	11.6	0.66	1.31	

Beckman Coulter AU400/500/600/800®

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 50 6UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	30.1	25.6	34.6	2.25	4.50	Bromocresol Green
	g/dl	3.01	2.56	3.46	0.23	0.45	
	g/l	30.2	25.7	34.7	2.25	4.50	Turbidimetric Assays
	g/dl	3.02	2.57	3.47	0.23	0.45	
Alkaline Phosphatase	U/l	372	316	428	28.00	56.00	p-Nitrophenylphosphate AMP 37°C
	U/l	526	447	605	39.50	79.00	Diethanolamine buffer DEA 37°C
	U/l	375	319	431	28.00	56.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	140	112	168	14.00	28.00	Tris buffer no P5P IFCC/SFBC 37°C
Amylase Total	U/l	284	241	327	21.50	43.00	Beckman Coulter - blocked pNPG7 37°C
AST (GOT)	U/l	142	114	170	14.00	28.00	Tris buffer no P5P IFCC/SFBC 37°C
Bicarbonate	mmol/l	16.9	13.4	20.4	1.75	3.50	Enzymatic
Bilirubin Direct	µmol/l	21.9	17.3	26.5	2.30	4.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.28	1.01	1.55	0.14	0.27	
	µmol/l	30.6	24.2	37.0	3.20	6.40	Diazo with Sulphanilic Acid
	mg/dl	1.79	1.42	2.16	0.19	0.37	
Bilirubin Total	µmol/l	86.9	68.7	105	9.10	18.20	Diazo with Dichloroaniline (DCA)
	mg/dl	5.08	4.02	6.14	0.53	1.06	
	µmol/l	79.6	62.9	96.3	8.35	16.70	Diazo with Sulphanilic Acid
	mg/dl	4.66	3.68	5.64	0.49	0.98	
	µmol/l	89.5	70.7	108	9.40	18.80	Dichlorophenyl Diazonium (DPD)
mg/dl	5.24	4.14	6.34	0.55	1.10		

Beckman Coulter AU400/500/600/800®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich				
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Calcium	mmol/l	3.10	2.79	3.41	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.4	11.2	13.6	0.60	1.20	
	mmol/l	3.14	2.83	3.45	0.16	0.31	Arsenazo III
	mg/dl	12.6	11.3	13.9	0.65	1.30	
Chloride	mmol/l	114	105	123	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.64	6.65	8.63	0.50	0.99	Cholesterol Oxidase
	mg/dl	295	257	333	19.00	38.00	
CK Total	U/l	528	433	623	47.50	95.00	CK-NAC serum start (DGKC) 37°C
	U/l	581	476	686	52.50	105.00	CK-NAC substrate start (DGKC) 37°C
	U/l	568	466	670	51.00	102.00	CK-NAC (IFCC) 37°C
Copper	µmol/l	25.5	20.4	30.6	2.55	5.10	Colorimetric
	µg/dl	162	130	194	16.00	32.00	
Creatinine	µmol/l	366	293	439	36.50	73.00	Alkaline picrate no deproteinization
	mg/dl	4.14	3.31	4.97	0.42	0.83	
	µmol/l	366	293	439	36.50	73.00	Jaffe rate blanked
	mg/dl	4.14	3.31	4.97	0.42	0.83	
	µmol/l	368	294	442	37.00	74.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.16	3.32	5.00	0.42	0.84	
	µmol/l	361	289	433	36.00	72.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.08	3.27	4.89	0.41	0.81	
	µmol/l	355	284	426	35.50	71.00	IDMS traceable
	mg/dl	4.01	3.21	4.81	0.40	0.80	
D-3-Hydroxybutyrate	mmol/l	1.14	0.97	1.31	0.09	0.17	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	173	147	199	13.00	26.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	173	147	199	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C

Beckman Coulter AU400/500/600/800®

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Glucose	mmol/l	15.9	13.5	18.3	1.20	2.40	Glucose dehydrogenase
	mg/dl	287	243	331	22.00	44.00	
	mmol/l	15.5	13.2	17.8	1.15	2.30	Hexokinase
	mg/dl	279	238	320	20.50	41.00	
Iron	mmol/l	15.9	13.5	18.3	1.20	2.40	Glucose oxidase
	mg/dl	287	243	331	22.00	44.00	
	µmol/l	36.5	29.9	43.1	3.30	6.60	Colorimetric with ppt.
	µg/dl	204	167	241	18.50	37.00	
Iron	µmol/l	36.2	29.6	42.8	3.30	6.60	Colorimetric without ppt.
	µg/dl	202	165	239	18.50	37.00	
	Lactate	mmol/l	5.87	4.82	6.92	0.53	1.05
Lactate	mg/dl	52.9	43.4	62.4	4.75	9.50	
	LD (LDH)	U/l	399	340	458	29.50	59.00
U/l		867	737	997	65.00	130.00	P->L Scandinavian & Dutch 37°C
U/l		732	623	841	54.50	109.00	P->L German methods 37°C
U/l		762	648	876	57.00	114.00	P->L SFBC 37°C
U/l		398	338	458	30.00	60.00	L->P IFCC 37°C
Lipase	U/l	59	47	71	6.00	12.00	Other Colorimetric 37°C
	U/l	53	42	64	5.50	11.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.99	1.75	2.23	0.12	0.24	Spectrophotometric
	mg/dl	1.38	1.22	1.54	0.08	0.16	
Magnesium	mmol/l	1.71	1.50	1.92	0.11	0.21	Xylidyl Blue
	mg/dl	4.16	3.65	4.67	0.26	0.51	
Phosphate Inorganic	mmol/l	2.30	1.95	2.65	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.13	6.05	8.21	0.54	1.08	

Beckman Coulter AU400/500/600/800®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)					
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611								
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden	
Potassium	mmol/l	6.05	5.56	6.54	0.25	0.49	ISE method - indirect	
Protein Total	g/l	48.8	39.0	58.6	4.90	9.80	Biuret reaction end point	
	g/dl	4.88	3.90	5.86	0.49	0.98		
Sodium	mmol/l	158	150	166	4.00	8.00	ISE method - indirect	
TIBC	µmol/l	45.3	35.8	54.8	4.75	9.50	FE+UIBC(saturation with iron)	
	µg/dl	253	200	306	26.50	53.00		
Triglycerides	mmol/l	3.01	2.52	3.50	0.25	0.49	Lipase/GPO-PAP no correction	
	mg/dl	266	223	309	21.50	43.00		
	mmol/l	3.00	2.52	3.48	0.24	0.48	Lipase/GPO-PAP 0.11mmol/l correction	
	mg/dl	266	223	309	21.50	43.00		
Urea	mmol/l	2.98	2.50	3.46	0.24	0.48	L/G Kinase EP. no correction	
	mg/dl	264	221	307	21.50	43.00		
	Urea	mmol/l	20.5	17.4	23.6	1.55	3.10	Urease kinetic
		mg/dl	123	105	141	9.00	18.00	
Uric Acid (Urate)	mmol/l	20.5	17.4	23.6	1.55	3.10	BUN	
	mg/dl	57.5	48.9	66.1	4.30	8.60		
	Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase
		mg/dl	9.27	8.08	10.5	0.60	1.19	
Uric Acid (Urate)	mmol/l	0.56	0.49	0.63	0.04	0.07	Uricase peroxidase no ascorbate oxidase	
	mg/dl	9.37	8.15	10.6	0.61	1.22		
Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm	
	mg/dl	9.21	8.01	10.4	0.60	1.20		

Beckman CX4/5/7/9/LX20®/DxC600/800®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 50 6UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml		Verw. bis: 2014-12					
Parameter	Einheit	Zielwert	Bereich		1SD	2SD	Methoden
			von	bis			
Albumin	g/l	30.7	26.1	35.3	2.30	4.60	Bromocresol Green
	g/dl	3.07	2.61	3.53	0.23	0.46	
	g/l	30.5	25.9	35.1	2.30	4.60	Bromocresol Purple
	g/dl	3.05	2.59	3.51	0.23	0.46	
Alkaline Phosphatase	U/l	327	278	376	24.50	49.00	p-Nitrophenylphosphate AMP 37°C
	U/l	338	288	388	25.00	50.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	126	101	151	12.50	25.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	126	101	151	12.50	25.00	Tris buffer SCE 37°C
Amylase Pancreatic	U/l	200	170	230	15.00	30.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	278	236	320	21.00	42.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	126	101	151	12.50	25.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	129	104	154	12.50	25.00	Tris buffer SCE 37°C
Bicarbonate	mmol/l	17.6	13.9	21.3	1.85	3.70	Differential rate pH change
	mmol/l	17.7	14.1	21.3	1.80	3.60	Ion selective electrode
Bilirubin Direct	µmol/l	16.8	13.3	20.3	1.75	3.50	Diazo with Sulphanilic Acid
	mg/dl	0.983	0.778	1.19	0.10	0.21	
Bilirubin Total	µmol/l	82.8	65.4	100	8.70	17.40	Diazo with Sulphanilic Acid
	mg/dl	4.84	3.83	5.85	0.51	1.01	
	µmol/l	83.5	66.0	101	8.75	17.50	Diazonium ion
	mg/dl	4.88	3.86	5.90	0.51	1.02	
Calcium	mmol/l	3.02	2.72	3.32	0.15	0.30	Ion selective electrode
	mg/dl	12.1	10.9	13.3	0.60	1.20	

Beckman CX4/5/7/9/LX20®/DxC600/800®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 50 6UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Calcium	mmol/l	3.06	2.75	3.37	0.16	0.31	Arsenazo III
	mg/dl	12.3	11.0	13.6	0.65	1.30	
Chloride	mmol/l	114	105	123	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.39	6.43	8.35	0.48	0.96	Cholesterol Oxidase
	mg/dl	285	248	322	18.50	37.00	
Cholinesterase	U/l	5859	4687	7031	586.00	1172.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	556	456	656	50.00	100.00	CK-NAC serum start (DGKC) 37°C
	U/l	550	451	649	49.50	99.00	CK-NAC substrate start (DGKC) 37°C
	U/l	554	455	653	49.50	99.00	CK-NAC (IFCC) 37°C
	U/l	541	443	639	49.00	98.00	Monothioglycerol 37°C
Creatinine	µmol/l	376	300	452	38.00	76.00	Alkaline picrate no deproteinization
	mg/dl	4.25	3.39	5.11	0.43	0.86	
	µmol/l	373	298	448	37.50	75.00	Randox Enzymatic UV method
	mg/dl	4.21	3.37	5.05	0.42	0.84	
	µmol/l	375	300	450	37.50	75.00	Jaffe rate blanked
	mg/dl	4.24	3.39	5.09	0.43	0.85	
µmol/l	370	296	444	37.00	74.00	IDMS traceable	
mg/dl	4.18	3.34	5.02	0.42	0.84		
gamma-GT	U/l	137	117	157	10.00	20.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	133	113	153	10.00	20.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	140	119	161	10.50	21.00	Other methods 37°C
	U/l	162	138	186	12.00	24.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	15.2	13.0	17.4	1.10	2.20	Hexokinase
	mg/dl	274	234	314	20.00	40.00	

Beckman CX4/5/7/9/LX20®/DxC600/800®				Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)			
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Glucose	mmol/l	15.3	13.0	17.6	1.15	2.30	Oxygen electrode
	mg/dl	276	234	318	21.00	42.00	
	mmol/l	15.0	12.8	17.2	1.10	2.20	Glucose oxidase
	mg/dl	270	231	309	19.50	39.00	
Iron	µmol/l	36.6	30.0	43.2	3.30	6.60	Colorimetric without ppt.
	µg/dl	205	168	242	18.50	37.00	
Lactate	mmol/l	6.33	5.19	7.47	0.57	1.14	Colorimetric Lactate Oxidase
	mg/dl	57.0	46.8	67.2	5.10	10.20	
LD (LDH)	U/l	316	268	364	24.00	48.00	L->P 37°C
	U/l	404	344	464	30.00	60.00	L->P Roche/Randox 37°C
	U/l	372	316	428	28.00	56.00	L->P IFCC 37°C
Lipase	U/l	56	45	67	5.50	11.00	Other Colorimetric 37°C
Magnesium	mmol/l	1.75	1.54	1.96	0.11	0.21	Calmagite
	mg/dl	4.25	3.74	4.76	0.26	0.51	
	mmol/l	1.74	1.53	1.95	0.11	0.21	Xylidyl Blue
	mg/dl	4.23	3.72	4.74	0.26	0.51	
Osmolality	mOsm/kg	341	273	409	34.00	68.00	Calculated
Phosphate Inorganic	mmol/l	2.30	1.96	2.64	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.13	6.08	8.18	0.53	1.05	
Potassium	mmol/l	6.05	5.56	6.54	0.25	0.49	ISE method - indirect
Protein Total	g/l	47.2	37.8	56.6	4.70	9.40	Biuret reaction CX4/5/7
	g/dl	4.72	3.78	5.66	0.47	0.94	
	g/l	47.2	37.7	56.7	4.75	9.50	Biuret reaction end point
	g/dl	4.72	3.77	5.67	0.48	0.95	
	g/l	46.8	37.5	56.1	4.65	9.30	Biuret reaction kinetic
	g/dl	4.68	3.75	5.61	0.47	0.93	

Beckman CX4/5/7/9/LX20®/DxC600/800®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich				
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Sodium	mmol/l	158	150	166	4.00	8.00	ISE method - indirect
TIBC	µmol/l	47.4	37.4	57.4	5.00	10.00	Removal of excess free iron
	µg/dl	265	209	321	28.00	56.00	
	µmol/l	45.8	36.2	55.4	4.80	9.60	FE+UIBC(saturation with iron)
	µg/dl	256	202	310	27.00	54.00	
Triglycerides	mmol/l	2.83	2.38	3.28	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	250	211	289	19.50	39.00	
	mmol/l	2.79	2.35	3.23	0.22	0.44	L/G Kinase EP. no correction
	mg/dl	247	208	286	19.50	39.00	
Urea	mmol/l	2.87	2.41	3.33	0.23	0.46	Lipase/Glycerol Dehydrogenase
	mg/dl	254	213	295	20.50	41.00	
	mmol/l	20.6	17.5	23.7	1.55	3.10	Urease end point
	mg/dl	124	105	143	9.50	19.00	
Urea	mmol/l	20.5	17.5	23.5	1.50	3.00	Urease kinetic
	mg/dl	123	105	141	9.00	18.00	
	mmol/l	20.5	17.4	23.6	1.55	3.10	BUN
	mg/dl	57.5	48.9	66.1	4.30	8.60	
Uric Acid (Urate)	mmol/l	0.52	0.45	0.59	0.03	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	8.77	7.63	9.91	0.57	1.14	
	mmol/l	0.53	0.46	0.59	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.82	7.68	9.96	0.57	1.14	

BECKMAN SYNCHRON CX 3®

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Calcium	mmol/l	3.12	2.80	3.44	0.16	0.32	Ion selective electrode
	mg/dl	12.5	11.2	13.8	0.65	1.30	
Chloride	mmol/l	116	107	125	4.50	9.00	ISE indirect
Creatinine	µmol/l	372	298	446	37.00	74.00	Jaffe rate blanked
	mg/dl	4.20	3.37	5.03	0.42	0.83	
Potassium	mmol/l	6.06	5.57	6.55	0.25	0.49	ISE method - indirect
Sodium	mmol/l	159	151	167	4.00	8.00	ISE method - indirect

BIOSYSTEMS A15

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 50 6UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	32.0	27.2	36.8	2.40	4.80	Bromocresol Green
	g/dl	3.20	2.72	3.68	0.24	0.48	
Alkaline Phosphatase	U/l	467	397	537	35.00	70.00	Diethanolamine buffer DEA 37°C
	U/l	364	309	419	27.50	55.00	Diethanolamine buffer DEA 30°C
	U/l	298	254	342	22.00	44.00	Diethanolamine buffer DEA 25°C
	U/l	340	289	391	25.50	51.00	AMP optimised to IFCC 37°C
	U/l	265	225	305	20.00	40.00	AMP optimised to IFCC 30°C
	U/l	217	185	249	16.00	32.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	147	117	177	15.00	30.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	109	87	131	11.00	22.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	83	66	100	8.50	17.00	Tris buffer no P5P IFCC/SFBC 25°C
AST (GOT)	U/l	156	124	188	16.00	32.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	105	84	126	10.50	21.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	74	59	89	7.50	15.00	Tris buffer no P5P IFCC/SFBC 25°C
Bilirubin Total	µmol/l	81.1	64.1	98.1	8.50	17.00	Diazo with Sulphanilic Acid
	mg/dl	4.74	3.75	5.73	0.50	0.99	
Cholesterol	mmol/l	7.60	6.61	8.59	0.50	0.99	Cholesterol Oxidase
	mg/dl	293	255	331	19.00	38.00	
CK Total	U/l	543	446	640	48.50	97.00	CK-NAC (IFCC) 37°C
	U/l	340	279	401	30.50	61.00	CK-NAC (IFCC) 30°C
	U/l	231	190	272	20.50	41.00	CK-NAC (IFCC) 25°C

BIOSYSTEMS A15

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 50 6UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Creatinine	µmol/l	340	272	408	34.00	68.00	Alkaline picrate no deproteinization
	mg/dl	3.84	3.07	4.61	0.39	0.77	
Glucose	mmol/l	15.4	13.1	17.7	1.15	2.30	Glucose oxidase
	mg/dl	278	236	320	21.00	42.00	
Protein Total	g/l	49.0	39.2	58.8	4.90	9.80	Biuret reaction end point
	g/dl	4.90	3.92	5.88	0.49	0.98	
Triglycerides	mmol/l	3.09	2.59	3.59	0.25	0.50	Lipase/GPO-PAP no correction
	mg/dl	273	229	317	22.00	44.00	
Urea	mmol/l	20.7	17.6	23.8	1.55	3.10	Urease kinetic
	mg/dl	124	106	142	9.00	18.00	
	mmol/l	20.7	17.6	23.8	1.55	3.10	BUN
	mg/dl	58.1	49.4	66.8	4.35	8.70	
Uric Acid (Urate)	mmol/l	0.56	0.49	0.64	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.46	8.23	10.7	0.62	1.23	
	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.94	7.78	10.1	0.58	1.16	

BIOSYSTEMS A25

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	30.9	26.3	35.5	2.30	4.60	Bromocresol Green
	g/dl	3.09	2.63	3.55	0.23	0.46	
Alkaline Phosphatase	U/l	299	254	344	22.50	45.00	AMP optimised to IFCC 37°C
	U/l	233	198	268	17.50	35.00	AMP optimised to IFCC 30°C
	U/l	191	162	220	14.50	29.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	135	108	162	13.50	27.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	100	80	120	10.00	20.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	76	61	91	7.50	15.00	Tris buffer no P5P IFCC/SFBC 25°C
AST (GOT)	U/l	146	117	175	14.50	29.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	99	79	119	10.00	20.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	69	56	82	6.50	13.00	Tris buffer no P5P IFCC/SFBC 25°C
Bilirubin Direct	µmol/l	29.8	23.5	36.1	3.15	6.30	Diazo with Sulphanilic Acid
	mg/dl	1.74	1.37	2.11	0.19	0.37	
Calcium	mmol/l	3.08	2.77	3.39	0.16	0.31	Arsenazo III
	mg/dl	12.3	11.1	13.5	0.60	1.20	
Cholesterol	mmol/l	7.17	6.23	8.11	0.47	0.94	Cholesterol Oxidase
	mg/dl	277	240	314	18.50	37.00	
CK Total	U/l	491	402	580	44.50	89.00	CK-NAC (IFCC) 37°C
	U/l	307	252	362	27.50	55.00	CK-NAC (IFCC) 30°C
	U/l	209	171	247	19.00	38.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	335	268	402	33.50	67.00	Alkaline picrate no deproteinization
	mg/dl	3.79	3.03	4.55	0.38	0.76	

BIOSYSTEMS A25

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
gamma-GT	U/l	173	147	199	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	136	116	156	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	107	91	123	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.4	13.1	17.7	1.15	2.30	Glucose oxidase
	mg/dl	278	236	320	21.00	42.00	
Protein Total	g/l	48.6	38.9	58.3	4.85	9.70	Biuret reaction end point
	g/dl	4.86	3.89	5.83	0.49	0.97	
Triglycerides	mmol/l	2.97	2.49	3.45	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	263	220	306	21.50	43.00	
Urea	mmol/l	19.2	16.4	22.0	1.40	2.80	Urease kinetic
	mg/dl	115	98.6	131	8.20	16.40	
	mmol/l	19.2	16.3	22.1	1.45	2.90	BUN
	mg/dl	53.9	45.8	62.0	4.05	8.10	
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	8.89	7.73	10.1	0.58	1.16	

COBAS INTEGRA®		Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)					
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	31.9	27.1	36.7	2.40	4.80	Bromocresol Green
	g/dl	3.19	2.71	3.67	0.24	0.48	
	g/l	31.9	27.1	36.7	2.40	4.80	Bromocresol Purple
	g/dl	3.19	2.71	3.67	0.24	0.48	
	g/l	28.0	23.8	32.2	2.10	4.20	Turbidimetric Assays
	g/dl	2.80	2.38	3.22	0.21	0.42	
Alkaline Phosphatase	U/l	255	216	294	19.50	39.00	Roche Integra AMP buffer 37°C
	U/l	199	168	230	15.50	31.00	Roche Integra AMP buffer 30°C
	U/l	163	138	188	12.50	25.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	137	110	164	13.50	27.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	101	81	121	10.00	20.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	77	62	92	7.50	15.00	Tris buffer no P5P IFCC/SFBC 25°C
Amylase Total	U/l	272	231	313	20.50	41.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	271	231	311	20.00	40.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	139	111	167	14.00	28.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	94	75	113	9.50	19.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	66	53	79	6.50	13.00	Tris buffer no P5P IFCC/SFBC 25°C
Bicarbonate	mmol/l	17.7	14.1	21.3	1.80	3.60	Colorimetric
	mmol/l	17.8	14.1	21.5	1.85	3.70	Enzymatic
Bilirubin Direct	µmol/l	22.1	17.5	26.7	2.30	4.60	Diazo with Sulphanilic Acid
	mg/dl	1.29	1.02	1.56	0.14	0.27	

COBAS INTEGRA®		Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)					
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Bilirubin Direct	µmol/l	20.7	16.4	25.0	2.15	4.30	Roche JG factored
	mg/dl	1.21	0.959	1.46	0.13	0.25	
Bilirubin Total	µmol/l	77.3	61.1	93.5	8.10	16.20	Diazo with Sulphanilic Acid
	mg/dl	4.52	3.57	5.47	0.48	0.95	
	µmol/l	78.3	61.9	94.7	8.20	16.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.58	3.62	5.54	0.48	0.96	
	µmol/l	77.2	61.0	93.4	8.10	16.20	Diazonium ion
	mg/dl	4.52	3.57	5.47	0.48	0.95	
µmol/l	77.0	60.8	93.2	8.10	16.20	DPD - Roche	
mg/dl	4.50	3.56	5.44	0.47	0.94		
Calcium	mmol/l	3.25	2.92	3.58	0.17	0.33	Cresolphthalein complexone
	mg/dl	13.0	11.7	14.3	0.65	1.30	
Chloride	mmol/l	115	106	124	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.47	6.50	8.44	0.49	0.97	Cholesterol Oxidase
	mg/dl	288	251	325	18.50	37.00	
CK Total	U/l	532	436	628	48.00	96.00	CK-NAC substrate start (DGKC) 37°C
	U/l	333	273	393	30.00	60.00	CK-NAC substrate start (DGKC) 30°C
	U/l	226	185	267	20.50	41.00	CK-NAC substrate start (DGKC) 25°C
	U/l	528	433	623	47.50	95.00	CK-NAC (IFCC) 37°C
	U/l	331	271	391	30.00	60.00	CK-NAC (IFCC) 30°C
	U/l	224	184	264	20.00	40.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	347	277	417	35.00	70.00	Alkaline picrate no deproteinization
	mg/dl	3.92	3.13	4.71	0.40	0.79	
	µmol/l	354	284	424	35.00	70.00	Roche Creatinine Plus
	mg/dl	4.00	3.21	4.79	0.40	0.79	

COBAS INTEGRA®		Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)						
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611								
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich						
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden	
Creatinine	µmol/l	350	280	420	35.00	70.00	Jaffe rate blanked	
	mg/dl	3.96	3.16	4.76	0.40	0.80		
	µmol/l	342	274	410	34.00	68.00	Jaffe rate blanked comp. (-26 µmol/l)	
	mg/dl	3.86	3.10	4.62	0.38	0.76		
	µmol/l	353	282	424	35.50	71.00	Jaffe rate blanked compensated (-18 µmol/l)	
	mg/dl	3.99	3.19	4.79	0.40	0.80		
	gamma-GT	U/l	153	130	176	11.50	23.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
		U/l	121	102	140	9.50	19.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
U/l		94	80	108	7.00	14.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C	
U/l		173	147	199	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C	
U/l		136	116	156	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C	
U/l		107	91	123	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C	
Glucose	mmol/l	15.2	12.9	17.5	1.15	2.30	Hexokinase	
	mg/dl	274	232	316	21.00	42.00		
	mmol/l	15.8	13.4	18.2	1.20	2.40	Glucose oxidase	
	mg/dl	285	241	329	22.00	44.00		
Iron	µmol/l	36.7	30.1	43.3	3.30	6.60	Colorimetric with ppt.	
	µg/dl	205	168	242	18.50	37.00		
	µmol/l	36.7	30.1	43.3	3.30	6.60	Colorimetric without ppt.	
	µg/dl	205	168	242	18.50	37.00		
LD (LDH)	U/l	728	618	838	55.00	110.00	P->L German methods 37°C	
	U/l	526	446	606	40.00	80.00	P->L German methods 30°C	
	U/l	369	313	425	28.00	56.00	P->L German methods 25°C	
	U/l	393	334	452	29.50	59.00	L->P Roche/Randox 37°C	
	U/l	284	241	327	21.50	43.00	L->P Roche/Randox 30°C	
	U/l	199	169	229	15.00	30.00	L->P Roche/Randox 25°C	

COBAS INTEGRA®		Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)					
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
LD (LDH)	U/l	396	337	455	29.50	59.00	L->P IFCC 37°C
	U/l	286	243	329	21.50	43.00	L->P IFCC 30°C
	U/l	201	171	231	15.00	30.00	L->P IFCC 25°C
Lipase	U/l	57	46	68	5.50	11.00	Roche Colorimetric 37°C
Lithium	mmol/l	2.07	1.82	2.32	0.13	0.25	Ion selective electrode
	mg/dl	1.44	1.26	1.62	0.09	0.18	
Magnesium	mmol/l	1.60	1.41	1.79	0.10	0.19	Chlorphosphonazo III
	mg/dl	3.89	3.43	4.35	0.23	0.46	
Phosphate Inorganic	mmol/l	2.31	1.96	2.66	0.18	0.35	Phosphomolybdate enzymatic
	mg/dl	7.16	6.08	8.24	0.54	1.08	
	mmol/l	2.28	1.94	2.62	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.07	6.01	8.13	0.53	1.06	
Potassium	mmol/l	6.06	5.57	6.55	0.25	0.49	ISE method - indirect
Protein Total	g/l	46.9	37.5	56.3	4.70	9.40	Biuret reaction end point
	g/dl	4.69	3.75	5.63	0.47	0.94	
	g/l	46.8	37.5	56.1	4.65	9.30	Biuret reaction kinetic
	g/dl	4.68	3.75	5.61	0.47	0.93	
Sodium	mmol/l	157	150	164	3.50	7.00	ISE method - indirect
TIBC	µmol/l	45.1	35.6	54.6	4.75	9.50	FE+UIBC(saturation with iron)
	µg/dl	252	199	305	26.50	53.00	
Triglycerides	mmol/l	2.88	2.42	3.34	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	255	214	296	20.50	41.00	
	mmol/l	2.84	2.38	3.30	0.23	0.46	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	251	211	291	20.00	40.00	

COBAS INTEGRA®

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Triglycerides	mmol/l	2.82	2.37	3.27	0.23	0.45	L/G Kinase EP. no correction
	mg/dl	250	210	290	20.00	40.00	
Urea	mmol/l	19.7	16.7	22.7	1.50	3.00	Urease kinetic
	mg/dl	118	100	136	9.00	18.00	
	mmol/l	19.7	16.7	22.7	1.50	3.00	BUN
	mg/dl	55.3	47.0	63.6	4.15	8.30	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.12	7.93	10.3	0.60	1.19	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.02	7.85	10.2	0.59	1.17	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.17	7.98	10.4	0.60	1.19	

COBAS MIRA®		Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)					
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	30.7	26.1	35.3	2.30	4.60	Bromocresol Green
	g/dl	3.07	2.61	3.53	0.23	0.46	
Alkaline Phosphatase	U/l	476	405	547	35.50	71.00	Diethanolamine buffer DEA 37°C
	U/l	371	315	427	28.00	56.00	Diethanolamine buffer DEA 30°C
	U/l	304	259	349	22.50	45.00	Diethanolamine buffer DEA 25°C
Calcium	mmol/l	3.12	2.80	3.44	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.5	11.2	13.8	0.65	1.30	
Cholesterol	mmol/l	7.56	6.58	8.54	0.49	0.98	Cholesterol Oxidase
	mg/dl	292	254	330	19.00	38.00	
Creatinine	µmol/l	348	278	418	35.00	70.00	Alkaline picrate no deproteinization
	mg/dl	3.93	3.14	4.72	0.40	0.79	
Glucose	mmol/l	15.3	13.0	17.6	1.15	2.30	Glucose oxidase
	mg/dl	276	234	318	21.00	42.00	
Protein Total	g/l	50.2	40.1	60.3	5.05	10.10	Biuret reaction end point
	g/dl	5.02	4.01	6.03	0.51	1.01	
Triglycerides	mmol/l	2.90	2.43	3.37	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	257	215	299	21.00	42.00	
Urea	mmol/l	20.3	17.3	23.3	1.50	3.00	Urease kinetic
	mg/dl	122	104	140	9.00	18.00	
	mmol/l	20.3	17.3	23.3	1.50	3.00	BUN
	mg/dl	57.0	48.5	65.5	4.25	8.50	

COBAS MIRA®

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Uric Acid (Urate)	mmol/l	0.56	0.49	0.64	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.48	8.23	10.7	0.63	1.25	

HITACHI SERIES®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich				
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
alpha-HBDH	U/l	440	348	532	46.00	92.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	332	263	401	34.50	69.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	249	197	301	26.00	52.00	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (non-prostatic)	U/l	14.7	9.85	19.6	2.43	4.85	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	10.6	7.10	14.1	1.75	3.50	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Prostatic)	U/l	35.5	23.8	47.2	5.85	11.70	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	22.4	15.0	29.8	3.70	7.40	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Total)	U/l	37.1	24.9	49.3	6.10	12.20	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	46.1	30.9	61.3	7.60	15.20	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Albumin	g/l	32.7	27.8	37.6	2.45	4.90	Bromocresol Green
	g/dl	3.27	2.78	3.76	0.25	0.49	
	g/l	29.6	25.2	34.0	2.20	4.40	Bromocresol Purple
	g/dl	2.96	2.52	3.40	0.22	0.44	
Alkaline Phosphatase	U/l	451	383	519	34.00	68.00	Diethanolamine buffer DEA 37°C
	U/l	351	298	404	26.50	53.00	Diethanolamine buffer DEA 30°C
	U/l	288	245	331	21.50	43.00	Diethanolamine buffer DEA 25°C
	U/l	240	204	276	18.00	36.00	Roche Integra AMP buffer 37°C
	U/l	187	159	215	14.00	28.00	Roche Integra AMP buffer 30°C
	U/l	153	130	176	11.50	23.00	Roche Integra AMP buffer 25°C
	U/l	331	281	381	25.00	50.00	Randox AMP 37°C
	U/l	258	219	297	19.50	39.00	Randox AMP 30°C
	U/l	212	180	244	16.00	32.00	Randox AMP 25°C

HITACHI SERIES®

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
ALT (GPT)	U/l	138	110	166	14.00	28.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	102	81	123	10.50	21.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	78	62	94	8.00	16.00	Tris buffer no P5P IFCC/SFBC 25°C
Amylase Pancreatic	U/l	274	233	315	20.50	41.00	Randox liquid stable pNPG7 37°C
	U/l	240	204	276	18.00	36.00	Roche liquid stable pNPG7 37°C
Amylase Total	U/l	267	227	307	20.00	40.00	Roche liquid stable pNPG7 37°C
	U/l	308	262	354	23.00	46.00	Randox liquid stable pNPG7 37°C
AST (GOT)	U/l	137	110	164	13.50	27.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	93	74	112	9.50	19.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	65	52	78	6.50	13.00	Tris buffer no P5P IFCC/SFBC 25°C
Bicarbonate	mmol/l	16.6	13.1	20.1	1.75	3.50	Colorimetric
	mmol/l	18.3	14.5	22.1	1.90	3.80	Enzymatic
Bile Acids	µmol/l	44.4	35.5	53.3	4.45	8.90	5th Generation Colorimetric
Bilirubin Direct	µmol/l	29.4	23.2	35.6	3.10	6.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.72	1.36	2.08	0.18	0.36	
	µmol/l	28.1	22.2	34.0	2.95	5.90	Diazo with Sulphanilic Acid
	mg/dl	1.64	1.30	1.98	0.17	0.34	
	µmol/l	19.7	15.6	23.8	2.05	4.10	Roche JG factored
	mg/dl	1.15	0.913	1.39	0.12	0.24	
Bilirubin Total	µmol/l	78.9	62.3	95.5	8.30	16.60	Diazo with Sulphanilic Acid
	mg/dl	4.62	3.64	5.60	0.49	0.98	
	µmol/l	78.1	61.7	94.5	8.20	16.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.57	3.61	5.53	0.48	0.96	
	µmol/l	79.0	62.4	95.6	8.30	16.60	Diazonium ion
	mg/dl	4.62	3.65	5.59	0.49	0.97	

HITACHI SERIES®		Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)					
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Bilirubin Total	µmol/l	80.3	63.4	97.2	8.45	16.90	DPD - Roche
	mg/dl	4.70	3.71	5.69	0.50	0.99	
Calcium	mmol/l	3.06	2.76	3.36	0.15	0.30	Cresolphthalein complexone
	mg/dl	12.3	11.1	13.5	0.60	1.20	
Chloride	mmol/l	113	104	122	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.51	6.53	8.49	0.49	0.98	Cholesterol Oxidase
	mg/dl	290	252	328	19.00	38.00	
CK Total	U/l	513	421	605	46.00	92.00	CK-NAC serum start (DGKC) 37°C
	U/l	321	264	378	28.50	57.00	CK-NAC serum start (DGKC) 30°C
	U/l	218	179	257	19.50	39.00	CK-NAC serum start (DGKC) 25°C
	U/l	525	431	619	47.00	94.00	CK-NAC substrate start (DGKC) 37°C
	U/l	329	270	388	29.50	59.00	CK-NAC substrate start (DGKC) 30°C
	U/l	223	183	263	20.00	40.00	CK-NAC substrate start (DGKC) 25°C
	U/l	520	426	614	47.00	94.00	CK-NAC (IFCC) 37°C
	U/l	326	267	385	29.50	59.00	CK-NAC (IFCC) 30°C
	U/l	221	181	261	20.00	40.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	369	295	443	37.00	74.00	Alkaline picrate no deproteinization
	mg/dl	4.17	3.33	5.01	0.42	0.84	
	µmol/l	377	302	452	37.50	75.00	Randox Enzymatic UV method
	mg/dl	4.26	3.41	5.11	0.43	0.85	
	µmol/l	379	303	455	38.00	76.00	Roche Creatinine Plus
	mg/dl	4.28	3.42	5.14	0.43	0.86	
	µmol/l	361	289	433	36.00	72.00	Jaffe rate blanked
	mg/dl	4.08	3.27	4.89	0.41	0.81	

HITACHI SERIES®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Creatinine	µmol/l	368	294	442	37.00	74.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.16	3.32	5.00	0.42	0.84	
	µmol/l	364	291	437	36.50	73.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.11	3.29	4.93	0.41	0.82	
D-3-Hydroxybutyrate	mmol/l	1.16	0.99	1.33	0.09	0.17	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	150	127	173	11.50	23.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	118	100	136	9.00	18.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	93	78	108	7.50	15.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	145	123	167	11.00	22.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	114	97	131	8.50	17.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	89	76	102	6.50	13.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	163	138	188	12.50	25.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	128	109	147	9.50	19.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	101	85	117	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	175	149	201	13.00	26.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	138	117	159	10.50	21.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	108	92	124	8.00	16.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
Glucose	mmol/l	15.4	13.1	17.7	1.15	2.30	Hexokinase
	mg/dl	278	236	320	21.00	42.00	
	mmol/l	15.7	13.4	18.0	1.15	2.30	Glucose oxidase
	mg/dl	283	241	325	21.00	42.00	
Iron	µmol/l	35.6	29.2	42.0	3.20	6.40	Colorimetric with ppt.
	µg/dl	199	163	235	18.00	36.00	
	µmol/l	35.8	29.3	42.3	3.25	6.50	Colorimetric without ppt.
	µg/dl	200	164	236	18.00	36.00	

HITACHI SERIES®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Lactate	mmol/l	5.98	4.91	7.05	0.54	1.07	Colorimetric Lactate Oxidase
	mg/dl	53.9	44.2	63.6	4.85	9.70	
LD (LDH)	U/l	344	292	396	26.00	52.00	L->P 37°C
	U/l	248	211	285	18.50	37.00	L->P 30°C
	U/l	174	148	200	13.00	26.00	L->P 25°C
	U/l	745	633	857	56.00	112.00	P->L German methods 37°C
	U/l	538	457	619	40.50	81.00	P->L German methods 30°C
	U/l	378	321	435	28.50	57.00	P->L German methods 25°C
	U/l	780	663	897	58.50	117.00	P->L SFBC 37°C
	U/l	563	479	647	42.00	84.00	P->L SFBC 30°C
	U/l	395	336	454	29.50	59.00	P->L SFBC 25°C
	U/l	387	329	445	29.00	58.00	L->P Roche/Randox 37°C
	U/l	279	238	320	20.50	41.00	L->P Roche/Randox 30°C
	U/l	196	167	225	14.50	29.00	L->P Roche/Randox 25°C
	U/l	380	323	437	28.50	57.00	L->P IFCC 37°C
	U/l	274	233	315	20.50	41.00	L->P IFCC 30°C
U/l	193	164	222	14.50	29.00	L->P IFCC 25°C	
Lipase	U/l	52	42	62	5.00	10.00	Roche Colorimetric 37°C
Lithium	mmol/l	2.11	1.86	2.36	0.13	0.25	Spectrophotometric
	mg/dl	1.47	1.29	1.65	0.09	0.18	
Magnesium	mmol/l	1.67	1.47	1.87	0.10	0.20	Xylidyl Blue
	mg/dl	4.06	3.57	4.55	0.25	0.49	
Phosphate Inorganic	mmol/l	2.28	1.94	2.62	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.07	6.01	8.13	0.53	1.06	
Potassium	mmol/l	6.05	5.57	6.53	0.24	0.48	ISE method - indirect

HITACHI SERIES®		Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)					
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Protein Total	g/l	47.5	38.0	57.0	4.75	9.50	Biuret reaction end point
	g/dl	4.75	3.80	5.70	0.48	0.95	
	g/l	49.0	39.2	58.8	4.90	9.80	Biuret reaction kinetic
	g/dl	4.90	3.92	5.88	0.49	0.98	
Sodium	mmol/l	160	152	168	4.00	8.00	ISE method - indirect
TIBC	µmol/l	41.0	32.4	49.6	4.30	8.60	FE+UIBC(saturation with iron)
	µg/dl	229	181	277	24.00	48.00	
Triglycerides	mmol/l	2.83	2.38	3.28	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	250	211	289	19.50	39.00	
	mmol/l	2.81	2.36	3.26	0.23	0.45	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	249	209	289	20.00	40.00	
Urea	mmol/l	2.90	2.44	3.36	0.23	0.46	L/G Kinase EP. no correction
	mg/dl	257	216	298	20.50	41.00	
	mmol/l	20.7	17.6	23.8	1.55	3.10	Urease kinetic
	mg/dl	124	106	142	9.00	18.00	
Uric Acid (Urate)	mmol/l	20.7	17.6	23.8	1.55	3.10	BUN
	mg/dl	58.1	49.4	66.8	4.35	8.70	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase catalase 340nm
	mg/dl	9.21	8.00	10.4	0.61	1.21	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.09	7.90	10.3	0.60	1.19	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.12	7.95	10.3	0.59	1.17	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.14	7.96	10.3	0.59	1.18	

ILab 300®		Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)					
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	30.0	25.5	34.5	2.25	4.50	Bromocresol Green
	g/dl	3.00	2.55	3.45	0.23	0.45	
ALT (GPT)	U/l	132	105	159	13.50	27.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	98	78	118	10.00	20.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	74	59	89	7.50	15.00	Tris buffer no P5P IFCC/SFBC 25°C
AST (GOT)	U/l	130	104	156	13.00	26.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	88	70	106	9.00	18.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	62	50	74	6.00	12.00	Tris buffer no P5P IFCC/SFBC 25°C
Bilirubin Direct	µmol/l	19.5	15.4	23.6	2.05	4.10	Diazo with Sulphanilic Acid
	mg/dl	1.14	0.901	1.38	0.12	0.24	
Bilirubin Total	µmol/l	83.9	66.2	102	8.85	17.70	Diazo with Sulphanilic Acid
	mg/dl	4.91	3.87	5.95	0.52	1.04	
Cholesterol	mmol/l	7.25	6.31	8.19	0.47	0.94	Cholesterol Oxidase
	mg/dl	280	244	316	18.00	36.00	
Creatinine	µmol/l	339	271	407	34.00	68.00	Alkaline picrate no deproteinization
	mg/dl	3.83	3.06	4.60	0.39	0.77	
gamma-GT	U/l	147	125	169	11.00	22.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	116	99	133	8.50	17.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	91	77	105	7.00	14.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.1	12.8	17.4	1.15	2.30	Glucose oxidase
	mg/dl	272	231	313	20.50	41.00	

ILab 300®		Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)					
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Protein Total	g/l	50.1	40.1	60.1	5.00	10.00	Biuret reaction end point
	g/dl	5.01	4.01	6.01	0.50	1.00	
Triglycerides	mmol/l	2.99	2.51	3.47	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	265	222	308	21.50	43.00	
	mmol/l	2.87	2.41	3.33	0.23	0.46	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	254	213	295	20.50	41.00	
Urea	mmol/l	20.0	17.0	23.0	1.50	3.00	Urease kinetic
	mg/dl	120	102	138	9.00	18.00	
	mmol/l	20.0	17.0	23.0	1.50	3.00	BUN
	mg/dl	56.1	47.7	64.5	4.20	8.40	
Uric Acid (Urate)	mmol/l	0.56	0.49	0.64	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.44	8.22	10.7	0.61	1.22	

ILab 600®/650®/Aries®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich				
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	32.1	27.3	36.9	2.40	4.80	Bromocresol Green
	g/dl	3.21	2.73	3.69	0.24	0.48	
Alkaline Phosphatase	U/l	365	311	419	27.00	54.00	AMP optimised to IFCC 37°C
	U/l	284	242	326	21.00	42.00	AMP optimised to IFCC 30°C
	U/l	233	199	267	17.00	34.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	126	101	151	12.50	25.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	93	75	111	9.00	18.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	71	57	85	7.00	14.00	Tris buffer no P5P IFCC/SFBC 25°C
Amylase Total	U/l	294	250	338	22.00	44.00	pNP Maltotriose substrates 37°C
	U/l	299	254	344	22.50	45.00	I.L. - blocked pNPG7 37°C
AST (GOT)	U/l	126	101	151	12.50	25.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	85	68	102	8.50	17.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	60	48	72	6.00	12.00	Tris buffer no P5P IFCC/SFBC 25°C
Bile Acids	µmol/l	41.7	33.3	50.1	4.20	8.40	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	19.5	15.4	23.6	2.05	4.10	Diazo with Sulphanilic Acid
	mg/dl	1.14	0.901	1.38	0.12	0.24	
Bilirubin Total	µmol/l	86.2	68.1	104	9.05	18.10	Diazo with Sulphanilic Acid
	mg/dl	5.04	3.98	6.10	0.53	1.06	
Calcium	mmol/l	3.17	2.85	3.49	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.7	11.4	14.0	0.65	1.30	
Chloride	mmol/l	110	101	119	4.50	9.00	ISE indirect

ILab 600®/650®/Aries®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Cholesterol	mmol/l	7.39	6.43	8.35	0.48	0.96	Cholesterol Oxidase
	mg/dl	285	248	322	18.50	37.00	
CK Total	U/l	492	403	581	44.50	89.00	CK-NAC (IFCC) 37°C
	U/l	308	252	364	28.00	56.00	CK-NAC (IFCC) 30°C
	U/l	209	171	247	19.00	38.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	331	265	397	33.00	66.00	Alkaline picrate no deproteinization
	mg/dl	3.74	2.99	4.49	0.38	0.75	
D-3-Hydroxybutyrate	mmol/l	1.19	1.01	1.37	0.09	0.18	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	143	122	164	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	113	96	130	8.50	17.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	88	75	101	6.50	13.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.8	13.5	18.1	1.15	2.30	Hexokinase
	mg/dl	285	243	327	21.00	42.00	
	mmol/l	15.0	12.8	17.2	1.10	2.20	Glucose oxidase
	mg/dl	270	231	309	19.50	39.00	
Iron	µmol/l	37.2	30.5	43.9	3.35	6.70	Colorimetric without ppt.
	µg/dl	208	170	246	19.00	38.00	
LD (LDH)	U/l	745	633	857	56.00	112.00	P->L German methods 37°C
	U/l	538	457	619	40.50	81.00	P->L German methods 30°C
	U/l	378	321	435	28.50	57.00	P->L German methods 25°C
Magnesium	mmol/l	1.67	1.47	1.87	0.10	0.20	Xylidyl Blue
	mg/dl	4.06	3.57	4.55	0.25	0.49	
Phosphate Inorganic	mmol/l	2.28	1.94	2.62	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.07	6.01	8.13	0.53	1.06	
Potassium	mmol/l	5.96	5.48	6.44	0.24	0.48	ISE method - indirect

ILab 600®/650®/Aries®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich				
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Protein Total	g/l	49.0	39.2	58.8	4.90	9.80	Biuret reaction end point
	g/dl	4.90	3.92	5.88	0.49	0.98	
Sodium	mmol/l	156	148	164	4.00	8.00	ISE method - indirect
Triglycerides	mmol/l	2.98	2.50	3.46	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	264	221	307	21.50	43.00	
	mmol/l	2.92	2.45	3.39	0.24	0.47	L/G Kinase EP. no correction
Urea	mg/dl	258	217	299	20.50	41.00	Urease end point
	mmol/l	19.7	16.7	22.7	1.50	3.00	
	mg/dl	118	100	136	9.00	18.00	BUN
Uric Acid (Urate)	mmol/l	19.7	16.7	22.7	1.50	3.00	Uricase peroxidase no ascorbate oxidase
	mg/dl	55.3	47.0	63.6	4.15	8.30	
Uric Acid (Urate)	mmol/l	0.55	0.48	0.63	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.29	8.08	10.5	0.61	1.21	

JOHNSON AND JOHNSON VITROS®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	29.5	25.1	33.9	2.20	4.40	Ortho Vitros Microslide Systems
	g/dl	2.95	2.51	3.39	0.22	0.44	
Alkaline Phosphatase	U/l	268	228	308	20.00	40.00	Ortho Vitros Microslide Systems 37°C
ALT (GPT)	U/l	142	113	171	14.50	29.00	Ortho Vitros Microslide Systems 37°C
Amylase Total	U/l	158	134	182	12.00	24.00	Ortho Vitros Microslide Systems 37°C
AST (GOT)	U/l	163	130	196	16.50	33.00	Ortho Vitros Microslide visible slide 37°C
Bicarbonate	mmol/l	19.8	15.7	23.9	2.05	4.10	Ortho Vitros Microslide Systems
Bilirubin Direct	µmol/l	12.7	10.0	15.4	1.35	2.70	Vitros conjugated from BUBC
	mg/dl	0.743	0.585	0.901	0.08	0.16	
Bilirubin Total	µmol/l	71.1	56.1	86.1	7.50	15.00	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	4.16	3.28	5.04	0.44	0.88	
	µmol/l	82.6	65.3	99.9	8.65	17.30	Vitros 250/500/700/950 Total BUBC
	mg/dl	4.83	3.82	5.84	0.51	1.01	
Calcium	mmol/l	3.06	2.75	3.37	0.16	0.31	Ortho Vitros Microslide Systems
	mg/dl	12.3	11.0	13.6	0.65	1.30	
Chloride	mmol/l	115	106	124	4.50	9.00	Ortho Vitros Microslide Systems
	mmol/l	122	112	132	5.00	10.00	Vitros DT60/DT60 II/DTE II
Cholesterol	mmol/l	7.12	6.20	8.04	0.46	0.92	Ortho Vitros Microslide Systems
	mg/dl	275	239	311	18.00	36.00	
CK Total	U/l	448	367	529	40.50	81.00	Ortho Vitros Microslide Systems 37°C
Creatinine	µmol/l	381	305	457	38.00	76.00	Vitros 250/500/700/950/5.1FS single slide
	mg/dl	4.31	3.45	5.17	0.43	0.86	

JOHNSON AND JOHNSON VITROS®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Creatinine	µmol/l	381	305	457	38.00	76.00	Vitros 250/500/700/950 double slide
	mg/dl	4.31	3.45	5.17	0.43	0.86	
	µmol/l	381	305	457	38.00	76.00	Vitros IDMS Traceable
	mg/dl	4.31	3.45	5.17	0.43	0.86	
gamma-GT	U/l	196	166	226	15.00	30.00	Ortho Vitros Microslide Systems 37°C
Glucose	mmol/l	14.6	12.4	16.8	1.10	2.20	Ortho Vitros Microslide Systems
	mg/dl	263	223	303	20.00	40.00	
	mmol/l	14.9	12.7	17.1	1.10	2.20	Vitros DT60/DT60 II
	mg/dl	268	229	307	19.50	39.00	
Iron	µmol/l	35.6	29.2	42.0	3.20	6.40	Ortho Vitros Microslide Systems
	µg/dl	199	163	235	18.00	36.00	
Lactate	mmol/l	5.47	4.49	6.45	0.49	0.98	Ortho Vitros Microslide Systems
	mg/dl	49.3	40.5	58.1	4.40	8.80	
LD (LDH)	U/l	1124	955	1293	84.50	169.00	Ortho Vitros Microslide Systems 37°C
	U/l	1132	962	1302	85.00	170.00	Vitros DT60/DT60 II/DTSC II 37°C
Lipase	U/l	614	493	735	60.50	121.00	Ortho Vitros Microslide Systems 37°C
Lithium	mmol/l	2.41	2.12	2.70	0.15	0.29	Ortho Vitros Microslide Systems
	mg/dl	1.67	1.47	1.87	0.10	0.20	
Magnesium	mmol/l	1.70	1.50	1.90	0.10	0.20	Ortho Vitros Microslide Systems
	mg/dl	4.13	3.65	4.61	0.24	0.48	
Phosphate Inorganic	mmol/l	2.19	1.86	2.52	0.17	0.33	Ortho Vitros Microslide Systems
	mg/dl	6.79	5.77	7.81	0.51	1.02	
Potassium	mmol/l	6.05	5.56	6.54	0.25	0.49	Ortho Vitros Microslide Systems
	mmol/l	5.90	5.43	6.37	0.24	0.47	Vitros DT60/DT60 II/DTE II

JOHNSON AND JOHNSON VITROS®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich				
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Protein Total	g/l	47.9	38.3	57.5	4.80	9.60	Ortho Vitros Microslide Systems
	g/dl	4.79	3.83	5.75	0.48	0.96	
	g/l	47.3	37.8	56.8	4.75	9.50	Vitros DT60/DT60 II
	g/dl	4.73	3.78	5.68	0.48	0.95	
Natrium	mmol/l	158	150	166	4.00	8.00	Ortho Vitros Microslide Systems
	mmol/l	158	150	166	4.00	8.00	Vitros DT60/DT60 II/DTE II
Triglycerides	mmol/l	3.51	2.95	4.07	0.28	0.56	Ortho Vitros Microslide Systems
	mg/dl	311	261	361	25.00	50.00	
	mmol/l	3.51	2.95	4.07	0.28	0.56	Vitros DT60/DT60 II
	mg/dl	311	261	361	25.00	50.00	
Urea	mmol/l	18.9	16.1	21.7	1.40	2.80	Ortho Vitros Microslide Systems
	mg/dl	114	96.8	131	8.60	17.20	
	mmol/l	18.9	16.1	21.7	1.40	2.80	BUN
	mg/dl	53.0	45.1	60.9	3.95	7.90	
Uric Acid (Urate)	mmol/l	0.52	0.45	0.59	0.03	0.07	Ortho Vitros Microslide Systems
	mg/dl	8.74	7.59	9.89	0.58	1.15	

Konelab 20/30/60®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich				
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	30.5	25.9	35.1	2.30	4.60	Bromocresol Green
	g/dl	3.05	2.59	3.51	0.23	0.46	
	g/l	28.7	24.4	33.0	2.15	4.30	Turbidimetric Assays
	g/dl	2.87	2.44	3.30	0.22	0.43	
Alkaline Phosphatase	U/l	453	385	521	34.00	68.00	Diethanolamine buffer DEA 37°C
	U/l	353	300	406	26.50	53.00	Diethanolamine buffer DEA 30°C
	U/l	289	246	332	21.50	43.00	Diethanolamine buffer DEA 25°C
	U/l	357	303	411	27.00	54.00	AMP optimised to IFCC 37°C
	U/l	278	236	320	21.00	42.00	AMP optimised to IFCC 30°C
	U/l	228	194	262	17.00	34.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	137	110	164	13.50	27.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	101	81	121	10.00	20.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	77	62	92	7.50	15.00	Tris buffer no P5P IFCC/SFBC 25°C
Amylase Total	U/l	311	265	357	23.00	46.00	Randox - Ethylidene pNPG7 37°C
	U/l	250	213	287	18.50	37.00	bioMerieux 2-chloro-pNPG3 37°C
AST (GOT)	U/l	143	115	171	14.00	28.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	97	78	116	9.50	19.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	68	55	81	6.50	13.00	Tris buffer no P5P IFCC/SFBC 25°C
Bile Acids	µmol/l	42.7	34.1	51.3	4.30	8.60	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	30.8	24.3	37.3	3.25	6.50	Diazo with Sulphanilic Acid
	mg/dl	1.80	1.42	2.18	0.19	0.38	

Konelab 20/30/60®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Bilirubin Total	µmol/l	80.6	63.6	97.6	8.50	17.00	Diazo with Sulphanilic Acid
	mg/dl	4.72	3.72	5.72	0.50	1.00	
	µmol/l	79.2	62.6	95.8	8.30	16.60	Nitrobenzenediazonium salt
	mg/dl	4.63	3.66	5.60	0.49	0.97	
Calcium	mmol/l	3.19	2.87	3.51	0.16	0.32	Arsenazo III
	mg/dl	12.8	11.5	14.1	0.65	1.30	
Chloride	mmol/l	115	106	124	4.50	9.00	ISE direct
Cholesterol	mmol/l	7.31	6.36	8.26	0.48	0.95	Cholesterol Oxidase
	mg/dl	282	245	319	18.50	37.00	
CK Total	U/l	543	445	641	49.00	98.00	CK-NAC serum start (DGKC) 37°C
	U/l	340	279	401	30.50	61.00	CK-NAC serum start (DGKC) 30°C
	U/l	231	189	273	21.00	42.00	CK-NAC serum start (DGKC) 25°C
	U/l	563	461	665	51.00	102.00	CK-NAC (IFCC) 37°C
	U/l	352	289	415	31.50	63.00	CK-NAC (IFCC) 30°C
	U/l	239	196	282	21.50	43.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	333	267	399	33.00	66.00	Alkaline picrate no deproteinization
	mg/dl	3.76	3.02	4.50	0.37	0.74	
	µmol/l	372	298	446	37.00	74.00	Randox Enzymatic UV method
	mg/dl	4.20	3.37	5.03	0.42	0.83	
	µmol/l	363	291	435	36.00	72.00	Creatinine PAP method
	mg/dl	4.10	3.29	4.91	0.41	0.81	
gamma-GT	U/l	160	136	184	12.00	24.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	126	107	145	9.50	19.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	99	84	114	7.50	15.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	167	142	192	12.50	25.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	132	112	152	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	103	88	118	7.50	15.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C

Konelab 20/30/60®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich				
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Glucose	mmol/l	15.0	12.8	17.2	1.10	2.20	Hexokinase
	mg/dl	270	231	309	19.50	39.00	
	mmol/l	15.5	13.2	17.8	1.15	2.30	Glucose oxidase
	mg/dl	279	238	320	20.50	41.00	
Iron	µmol/l	36.5	30.0	43.0	3.25	6.50	Colorimetric without ppt.
	µg/dl	204	168	240	18.00	36.00	
LD (LDH)	U/l	337	287	387	25.00	50.00	L->P 37°C
	U/l	243	207	279	18.00	36.00	L->P 30°C
	U/l	171	146	196	12.50	25.00	L->P 25°C
	U/l	804	683	925	60.50	121.00	P->L Scandinavian & Dutch 37°C
	U/l	580	493	667	43.50	87.00	P->L Scandinavian & Dutch 30°C
	U/l	408	346	470	31.00	62.00	P->L Scandinavian & Dutch 25°C
	U/l	374	318	430	28.00	56.00	L->P IFCC 37°C
	U/l	270	230	310	20.00	40.00	L->P IFCC 30°C
Magnesium	mmol/l	1.57	1.38	1.76	0.10	0.19	Arsenazo III
	mg/dl	3.82	3.35	4.29	0.24	0.47	
	mmol/l	1.70	1.49	1.91	0.11	0.21	Calmagite
	mg/dl	4.13	3.62	4.64	0.26	0.51	
	mmol/l	1.50	1.32	1.68	0.09	0.18	Xylidyl Blue
	mg/dl	3.65	3.21	4.09	0.22	0.44	
Phosphate Inorganic	mmol/l	2.24	1.91	2.57	0.17	0.33	Phosphomolybdate UV
	mg/dl	6.94	5.92	7.96	0.51	1.02	

Konelab 20/30/60®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich				
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Potassium	mmol/l	5.88	5.41	6.35	0.24	0.47	ISE method - direct
Protein Total	g/l	48.3	38.6	58.0	4.85	9.70	Biuret reaction end point
	g/dl	4.83	3.86	5.80	0.49	0.97	
Sodium	mmol/l	155	148	162	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	2.97	2.49	3.45	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	263	220	306	21.50	43.00	
Urea	mmol/l	19.4	16.4	22.4	1.50	3.00	Urease end point
	mg/dl	117	98.6	135	9.20	18.40	
	mmol/l	19.2	16.3	22.1	1.45	2.90	Urease kinetic
	mg/dl	115	98.0	132	8.50	17.00	
	mmol/l	19.2	16.3	22.1	1.45	2.90	BUN
	mg/dl	53.9	45.8	62.0	4.05	8.10	
	mmol/l	0.57	0.50	0.64	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.58	8.33	10.8	0.63	1.25	
Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.22	8.01	10.4	0.61	1.21	
	mmol/l	0.57	0.50	0.64	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.56	8.32	10.8	0.62	1.24	

MEAN OF ALL INSTRUMENTS

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
alpha-HBDH	U/l	440	348	532	46.00	92.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	332	263	401	34.50	69.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	249	197	301	26.00	52.00	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (non-prostatic)	U/l	14.7	9.85	19.6	2.43	4.85	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	10.6	7.10	14.1	1.75	3.50	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Prostatic)	U/l	22.4	15.0	29.8	3.70	7.40	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	35.5	23.8	47.2	5.85	11.70	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Total)	U/l	37.1	24.9	49.3	6.10	12.20	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	46.1	30.9	61.3	7.60	15.20	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Albumin	g/l	31.5	26.8	36.2	2.35	4.70	Bromocresol Green
	g/dl	3.15	2.68	3.62	0.24	0.47	
	g/l	30.3	25.7	34.9	2.30	4.60	Bromocresol Purple
	g/dl	3.03	2.57	3.49	0.23	0.46	
	g/l	29.5	25.1	33.9	2.20	4.40	Ortho Vitros Microslide Systems
	g/dl	2.95	2.51	3.39	0.22	0.44	
	g/l	28.1	23.9	32.3	2.10	4.20	Turbidimetric Assays
g/dl	2.81	2.39	3.23	0.21	0.42		
Alkaline Phosphatase	U/l	332	282	382	25.00	50.00	p-Nitrophenylphosphate AMP 37°C
	U/l	259	220	298	19.50	39.00	p-Nitrophenylphosphate AMP 30°C
	U/l	212	180	244	16.00	32.00	p-Nitrophenylphosphate AMP 25°C
	U/l	268	228	308	20.00	40.00	Ortho Vitros Microslide Systems 37°C

MEAN OF ALL INSTRUMENTS

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Alkaline Phosphatase	U/l	463	394	532	34.50	69.00	Diethanolamine buffer DEA 37°C
	U/l	361	307	415	27.00	54.00	Diethanolamine buffer DEA 30°C
	U/l	296	252	340	22.00	44.00	Diethanolamine buffer DEA 25°C
	U/l	341	290	392	25.50	51.00	AMP optimised to IFCC 37°C
	U/l	266	226	306	20.00	40.00	AMP optimised to IFCC 30°C
	U/l	218	185	251	16.50	33.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	142	113	171	14.50	29.00	Ortho Vitros Microslide Systems 37°C
	U/l	159	127	191	16.00	32.00	Tris buffer with P5P IFCC/SFBC 37°C
	U/l	118	94	142	12.00	24.00	Tris buffer with P5P IFCC/SFBC 30°C
	U/l	90	72	108	9.00	18.00	Tris buffer with P5P IFCC/SFBC 25°C
	U/l	136	108	164	14.00	28.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	101	80	122	10.50	21.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	77	61	93	8.00	16.00	Tris buffer no P5P IFCC/SFBC 25°C
	U/l	126	100	152	13.00	26.00	Tris buffer SCE 37°C
	U/l	93	74	112	9.50	19.00	Tris buffer SCE 30°C
U/l	71	56	86	7.50	15.00	Tris buffer SCE 25°C	
Amylase Pancreatic	U/l	276	235	317	20.50	41.00	Randox liquid pNPG7 37°C
	U/l	245	208	282	18.50	37.00	Roche liquid stable pNPG7 37°C
Amylase Total	U/l	290	247	333	21.50	43.00	pNP Maltotrioxide substrates 37°C
	U/l	315	267	363	24.00	48.00	Abbott - blocked pNPG7 37°C
	U/l	276	235	317	20.50	41.00	Siemens - blocked pNPG7 37°C
	U/l	301	256	346	22.50	45.00	I.L. - blocked pNPG7 37°C
	U/l	236	201	271	17.50	35.00	Randox - Ethylidene pNPG7 37°C
	U/l	306	260	352	23.00	46.00	Randox liquid stable pNPG7 37°C
	U/l	331	282	380	24.50	49.00	Siemens - maltopenta/hexaoside 37°C

MEAN OF ALL INSTRUMENTS

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Amylase Total	U/l	272	231	313	20.50	41.00	Siemens 2-chloro-pNP linked substrate 37°C
	U/l	270	230	310	20.00	40.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	158	134	182	12.00	24.00	Ortho Vitros Microslide Systems 37°C
	U/l	270	229	311	20.50	41.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	269	229	309	20.00	40.00	Roche liquid stable pNPG7 37°C
	U/l	326	277	375	24.50	49.00	Siemens 2-chloro-pNPG3 37°C
	U/l	251	213	289	19.00	38.00	bioMerieux 2-chloro-pNPG3 37°C
	U/l	284	241	327	21.50	43.00	Beckman Coulter - blocked pNPG7 37°C
Apolipoprotein A-1	g/l	1.07	0.88	1.26	0.10	0.19	Immunoturbidimetric
	mg/dl	107	87.7	126	9.65	19.30	
Apolipoprotein B	g/l	0.55	0.45	0.65	0.05	0.10	Immunoturbidimetric
	mg/dl	55.2	45.3	65.1	4.95	9.90	
AST (GOT)	U/l	163	130	196	16.50	33.00	Ortho Vitros Microslide visible slide 37°C
	U/l	179	143	215	18.00	36.00	Tris buffer with P5P IFCC/SFBC 37°C
	U/l	121	97	145	12.00	24.00	Tris buffer with P5P IFCC/SFBC 30°C
	U/l	85	68	102	8.50	17.00	Tris buffer with P5P IFCC/SFBC 25°C
	U/l	144	115	173	14.50	29.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	97	78	116	9.50	19.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	69	55	83	7.00	14.00	Tris buffer no P5P IFCC/SFBC 25°C
	U/l	131	105	157	13.00	26.00	Phosphate buffer DGKC 37°C
	U/l	89	71	107	9.00	18.00	Phosphate buffer DGKC 30°C
	U/l	62	50	74	6.00	12.00	Phosphate buffer DGKC 25°C
	U/l	129	103	155	13.00	26.00	Tris buffer SCE 37°C
	U/l	87	70	104	8.50	17.00	Tris buffer SCE 30°C
	U/l	61	49	73	6.00	12.00	Tris buffer SCE 25°C

MEAN OF ALL INSTRUMENTS

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Bicarbonate	mmol/l	17.7	14.0	21.4	1.85	3.70	Colorimetric
	mmol/l	19.8	15.7	23.9	2.05	4.10	Ortho Vitros Microslide Systems
	mmol/l	17.6	13.9	21.3	1.85	3.70	Differential rate pH change
	mmol/l	17.9	14.2	21.6	1.85	3.70	Enzymatic
	mmol/l	17.8	14.1	21.5	1.85	3.70	Ion selective electrode
Bile Acids	µmol/l	44.5	35.6	53.4	4.45	8.90	4th Generation Colorimetric
	µmol/l	44.4	35.5	53.3	4.45	8.90	5th Generation Colorimetric
Bilirubin Direct	µmol/l	22.2	17.6	26.8	2.30	4.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.30	1.03	1.57	0.14	0.27	
	µmol/l	31.9	25.2	38.6	3.35	6.70	Diazo with Sulphanilic Acid
	mg/dl	1.87	1.47	2.27	0.20	0.40	
	µmol/l	19.5	15.4	23.6	2.05	4.10	Roche JG factored
	mg/dl	1.14	0.901	1.38	0.12	0.24	
	µmol/l	29.9	23.6	36.2	3.15	6.30	Oxidation to Biliverdin
	mg/dl	1.75	1.38	2.12	0.19	0.37	
Bilirubin Total	µmol/l	30.1	23.8	36.4	3.15	6.30	Modified Jendrassik
	mg/dl	1.76	1.39	2.13	0.19	0.37	
	µmol/l	71.1	56.1	86.1	7.50	15.00	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	4.16	3.28	5.04	0.44	0.88	
	µmol/l	82.6	65.3	99.9	8.65	17.30	Vitros 250/500/700/950 Total BUBC
	mg/dl	4.83	3.82	5.84	0.51	1.01	
	µmol/l	85.6	67.6	104	9.00	18.00	Diazo with Dichloroaniline (DCA)
	mg/dl	5.01	3.95	6.07	0.53	1.06	
	µmol/l	81.7	64.6	98.8	8.55	17.10	Diazo with Sulphanilic Acid
	mg/dl	4.78	3.78	5.78	0.50	1.00	

MEAN OF ALL INSTRUMENTS

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden	
Bilirubin Total	µmol/l	89.9	71.0	109	9.45	18.90	Dichlorophenyl Diazonium (DPD)	
	mg/dl	5.26	4.15	6.37	0.56	1.11		
	µmol/l	80.4	63.5	97.3	8.45	16.90	Nitrobenzenediazonium salt	
	mg/dl	4.70	3.71	5.69	0.50	0.99		
	µmol/l	77.6	61.3	93.9	8.15	16.30	Diazonium ion	
	mg/dl	4.54	3.59	5.49	0.48	0.95		
	µmol/l	87.4	69.0	106	9.20	18.40	Oxidation to Biliverdin	
	mg/dl	5.11	4.04	6.18	0.54	1.07		
	µmol/l	77.5	61.2	93.8	8.15	16.30	DPD - Roche	
	mg/dl	4.53	3.58	5.48	0.48	0.95		
	µmol/l	89.4	70.6	108	9.40	18.80	Modified Jendrassik	
	mg/dl	5.23	4.13	6.33	0.55	1.10		
	Calcium	mmol/l	3.23	2.90	3.56	0.17	0.33	Atomic absorption
		mg/dl	12.9	11.6	14.2	0.65	1.30	
mmol/l		3.14	2.83	3.45	0.16	0.31	Cresolphthalein complexone	
mg/dl		12.6	11.3	13.9	0.65	1.30		
mmol/l		3.06	2.75	3.37	0.16	0.31	Ortho Vitros Microslide Systems	
mg/dl		12.3	11.0	13.6	0.65	1.30		
mmol/l		3.03	2.72	3.34	0.16	0.31	Ion selective electrode	
mg/dl		12.1	10.9	13.3	0.60	1.20		
mmol/l		2.99	2.69	3.29	0.15	0.30	Methylthymol blue	
mg/dl		12.0	10.8	13.2	0.60	1.20		
mmol/l		3.10	2.79	3.41	0.16	0.31	Arsenazo III	
mg/dl		12.4	11.2	13.6	0.60	1.20		
Chloride		mmol/l	114	105	123	4.50	9.00	Colorimetric

MEAN OF ALL INSTRUMENTS

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Chloride	mmol/l	115	106	124	4.50	9.00	Ortho Vitros Microslide Systems
	mmol/l	114	105	123	4.50	9.00	ISE indirect
	mmol/l	115	106	124	4.50	9.00	ISE direct
Cholesterol	mmol/l	7.12	6.20	8.04	0.46	0.92	Ortho Vitros Microslide Systems
	mg/dl	275	239	311	18.00	36.00	
	mmol/l	7.44	6.47	8.41	0.49	0.97	Cholesterol Oxidase
	mg/dl	287	250	324	18.50	37.00	
Cholinesterase	U/l	5744	4595	6893	574.50	1149.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	448	367	529	40.50	81.00	Ortho Vitros Microslide Systems 37°C
	U/l	543	446	640	48.50	97.00	CK-NAC serum start (DGKC) 37°C
	U/l	340	279	401	30.50	61.00	CK-NAC serum start (DGKC) 30°C
	U/l	231	190	272	20.50	41.00	CK-NAC serum start (DGKC) 25°C
	U/l	539	442	636	48.50	97.00	CK-NAC substrate start (DGKC) 37°C
	U/l	337	277	397	30.00	60.00	CK-NAC substrate start (DGKC) 30°C
	U/l	229	188	270	20.50	41.00	CK-NAC substrate start (DGKC) 25°C
	U/l	541	443	639	49.00	98.00	CK-NAC (IFCC) 37°C
	U/l	339	277	401	31.00	62.00	CK-NAC (IFCC) 30°C
	U/l	230	188	272	21.00	42.00	CK-NAC (IFCC) 25°C
	U/l	541	443	639	49.00	98.00	Monothioglycerol 37°C
	U/l	339	277	401	31.00	62.00	Monothioglycerol 30°C
	U/l	230	188	272	21.00	42.00	Monothioglycerol 25°C
	U/l	524	430	618	47.00	94.00	Dithioerythritol 37°C
	U/l	328	269	387	29.50	59.00	Dithioerythritol 30°C
	U/l	223	183	263	20.00	40.00	Dithioerythritol 25°C
	U/l	525	430	620	47.50	95.00	Dithioerythritol (DTE) IFCC correlated 37°C
U/l	329	269	389	30.00	60.00	Dithioerythritol (DTE) IFCC correlated 30°C	
U/l	223	183	263	20.00	40.00	Dithioerythritol (DTE) IFCC correlated 25°C	

MEAN OF ALL INSTRUMENTS			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Copper	µmol/l	27.5	22.0	33.0	2.75	5.50	Atomic absorption
	µg/dl	175	140	210	17.50	35.00	
	µmol/l	26.7	21.4	32.0	2.65	5.30	Colorimetric
	µg/dl	170	136	204	17.00	34.00	
Cortisol	nmol/l	981	736	1226	122.50	245.00	Siemens Advia Centaur
	µg/dl	35.3	26.5	44.1	4.40	8.80	
Creatinine	µmol/l	359	287	431	36.00	72.00	Alkaline picrate with deproteinization
	mg/dl	4.06	3.24	4.88	0.41	0.82	
	µmol/l	361	289	433	36.00	72.00	Alkaline picrate no deproteinization
	mg/dl	4.08	3.27	4.89	0.41	0.81	
	µmol/l	381	305	457	38.00	76.00	Vitros 250/500/700/950/5.1FS single slide
	mg/dl	4.31	3.45	5.17	0.43	0.86	
	µmol/l	377	301	453	38.00	76.00	Randox Enzymatic UV method
	mg/dl	4.26	3.40	5.12	0.43	0.86	
	µmol/l	372	297	447	37.50	75.00	Creatinine PAP method
	mg/dl	4.20	3.36	5.04	0.42	0.84	
	µmol/l	374	299	449	37.50	75.00	Roche Creatinine Plus
	mg/dl	4.23	3.38	5.08	0.43	0.85	
	µmol/l	370	296	444	37.00	74.00	Jaffe rate blanked
	mg/dl	4.18	3.34	5.02	0.42	0.84	
	µmol/l	365	292	438	36.50	73.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.12	3.30	4.94	0.41	0.82	
µmol/l	359	287	431	36.00	72.00	Jaffe rate blanked compensated (-18 µmol/l)	
mg/dl	4.06	3.24	4.88	0.41	0.82		

MEAN OF ALL INSTRUMENTS

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Creatinine	µmol/l	381	305	457	38.00	76.00	Vitros IDMS Traceable
	mg/dl	4.31	3.45	5.17	0.43	0.86	
	µmol/l	368	294	442	37.00	74.00	IDMS traceable
	mg/dl	4.16	3.32	5.00	0.42	0.84	
D-3-Hydroxybutyrate	mmol/l	1.15	0.98	1.32	0.09	0.17	Tris buffer 100mmol pH 8.5
Digoxin	nmol/l	3.84	3.07	4.61	0.39	0.77	Immunturbidimetric
	ng/ml	3.00	2.40	3.60	0.30	0.60	
Folate	nmol/l	45.4	34.5	56.3	5.45	10.90	Siemens Advia Centaur
	ng/ml	20.0	15.2	24.8	2.40	4.80	
Free T4	pmol/l	44.1	37.5	50.7	3.30	6.60	Abbott Architect
	ng/dl	3.44	2.93	3.95	0.26	0.51	
	pg/ml	34.4	29.3	39.5	2.55	5.10	Abbott Architect
	pmol/l	42.9	36.5	49.3	3.20	6.40	Abbott AXSYM
	ng/dl	3.35	2.85	3.85	0.25	0.50	
	pg/ml	33.5	28.5	38.5	2.50	5.00	Abbott AXSYM
	pmol/l	53.0	45.0	61.0	4.00	8.00	Siemens Advia Centaur
	ng/dl	4.13	3.51	4.75	0.31	0.62	
	pg/ml	41.3	35.1	47.5	3.10	6.20	Siemens Advia Centaur
	pmol/l	47.3	40.2	54.4	3.55	7.10	Beckman Access
	ng/dl	3.69	3.14	4.24	0.28	0.55	
	pg/ml	36.9	31.4	42.4	2.75	5.50	Beckman Access
	pmol/l	35.5	30.2	40.8	2.65	5.30	bioMerieux Vidas
	ng/dl	2.77	2.36	3.18	0.21	0.41	
pg/ml	27.7	23.6	31.8	2.05	4.10	bioMerieux Vidas	

MEAN OF ALL INSTRUMENTS

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Free T4	pmol/l	49.4	42.0	56.8	3.70	7.40	Siemens Immulite 2000/2500
	ng/dl	3.85	3.28	4.42	0.29	0.57	
	pg/ml	38.5	32.8	44.2	2.85	5.70	Siemens Immulite 2000/2500
	pmol/l	83.0	70.5	95.5	6.25	12.50	Vitros ECi
	ng/dl	6.47	5.50	7.44	0.49	0.97	
	pg/ml	64.7	55.0	74.4	4.85	9.70	Vitros ECi
	pmol/l	51.1	43.4	58.8	3.85	7.70	Roche Elecsys
	ng/dl	3.99	3.39	4.59	0.30	0.60	
	pg/ml	39.9	33.9	45.9	3.00	6.00	Roche Elecsys
	pmol/l	51.7	44.0	59.4	3.85	7.70	Roche Modular E170
	ng/dl	4.03	3.43	4.63	0.30	0.60	
	pg/ml	40.3	34.3	46.3	3.00	6.00	Roche Modular E170
	pmol/l	51.2	43.5	58.9	3.85	7.70	Roche Cobas E411
	ng/dl	3.99	3.39	4.59	0.30	0.60	
	pg/ml	39.9	33.9	45.9	3.00	6.00	Roche Cobas E411
Gentamicin	pmol/l	53.4	45.4	61.4	4.00	8.00	Roche Cobas 6000
	ng/dl	4.17	3.54	4.80	0.32	0.63	
	pg/ml	41.7	35.4	48.0	3.15	6.30	Roche Cobas 6000
Gentamicin	µmol/l	18.6	14.9	22.2	1.84	3.67	Immunoturbidimetric
	µg/ml	8.88	7.12	10.6	0.88	1.76	
gamma-GT	U/l	156	133	179	11.50	23.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	123	105	141	9.00	18.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	96	82	110	7.00	14.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	196	166	226	15.00	30.00	Ortho Vitros Microslide Systems 37°C
	U/l	133	113	153	10.00	20.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	105	89	121	8.00	16.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	82	70	94	6.00	12.00	Gamma glutamyl-4-nitroanilide 25°C

MEAN OF ALL INSTRUMENTS

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

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Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
gamma-GT	U/l	169	144	194	12.50	25.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	133	113	153	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	104	89	119	7.50	15.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	165	140	190	12.50	25.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
	U/l	130	110	150	10.00	20.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 30°C
	U/l	102	86	118	8.00	16.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 25°C
	U/l	175	149	201	13.00	26.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	138	117	159	10.50	21.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	108	92	124	8.00	16.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	30	24	36	3.00	6.00	Triethanolamine buffer 50 mmol 37°C
	U/l	23	18	28	2.50	5.00	Triethanolamine buffer 50 mmol 30°C
	U/l	19	15	23	2.00	4.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	14.6	12.4	16.8	1.10	2.20	Ortho Vitros Microslide Systems
	mg/dl	263	223	303	20.00	40.00	
	mmol/l	15.2	13.0	17.4	1.10	2.20	Glucose dehydrogenase
	mg/dl	274	234	314	20.00	40.00	
	mmol/l	15.4	13.1	17.7	1.15	2.30	Hexokinase
	mg/dl	278	236	320	21.00	42.00	
	mmol/l	15.3	13.0	17.6	1.15	2.30	Oxygen electrode
	mg/dl	276	234	318	21.00	42.00	
Immunoglobulin A	g/l	1.67	1.25	2.09	0.21	0.42	Immunoturbidimetric
	mg/dl	167	125	209	21.00	42.00	

MEAN OF ALL INSTRUMENTS

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

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Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Immunglobulin G	g/l	6.48	5.31	7.65	0.59	1.17	Immunoturbidimetric
	mg/dl	648	531	765	58.50	117.00	
Immunglobulin M	g/l	0.75	0.60	0.90	0.08	0.15	Immunoturbidimetric
	mg/dl	75.0	60.0	90.0	7.50	15.00	
Iron	µmol/l	35.8	29.3	42.3	3.25	6.50	Colorimetric with ppt.
	µg/dl	200	164	236	18.00	36.00	
	µmol/l	36.0	29.5	42.5	3.25	6.50	Colorimetric without ppt.
	µg/dl	201	165	237	18.00	36.00	
	µmol/l	35.6	29.2	42.0	3.20	6.40	
µg/dl	199	163	235	18.00	36.00		
Lactate	mmol/l	6.00	4.92	7.08	0.54	1.08	Colorimetric Lactate Oxidase
	mg/dl	54.1	44.3	63.9	4.90	9.80	
	mmol/l	5.90	4.83	6.97	0.54	1.07	UV LDH
	mg/dl	53.2	43.5	62.9	4.85	9.70	
LAP	U/l	16	14	18	1.00	2.00	NAGEL 37°C
LD (LDH)	U/l	1124	955	1293	84.50	169.00	Ortho Vitros Microslide Systems 37°C
	U/l	341	290	392	25.50	51.00	L->P 37°C
	U/l	246	209	283	18.50	37.00	L->P 30°C
	U/l	173	147	199	13.00	26.00	L->P 25°C
	U/l	845	718	972	63.50	127.00	P->L Scandinavian & Dutch 37°C
	U/l	610	518	702	46.00	92.00	P->L Scandinavian & Dutch 30°C
	U/l	428	364	492	32.00	64.00	P->L Scandinavian & Dutch 25°C
	U/l	740	629	851	55.50	111.00	P->L German methods 37°C
	U/l	534	454	614	40.00	80.00	P->L German methods 30°C
	U/l	375	319	431	28.00	56.00	P->L German methods 25°C

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Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

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Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
LD (LDH)	U/l	753	640	866	56.50	113.00	P->L SFBC 37°C
	U/l	544	462	626	41.00	82.00	P->L SFBC 30°C
	U/l	382	324	440	29.00	58.00	P->L SFBC 25°C
	U/l	389	330	448	29.50	59.00	L->P Roche/Randox 37°C
	U/l	281	238	324	21.50	43.00	L->P Roche/Randox 30°C
	U/l	197	167	227	15.00	30.00	L->P Roche/Randox 25°C
	U/l	384	326	442	29.00	58.00	L->P IFCC 37°C
	U/l	277	235	319	21.00	42.00	L->P IFCC 30°C
	U/l	195	165	225	15.00	30.00	L->P IFCC 25°C
Lipase	U/l	58	46	70	6.00	12.00	Other Colorimetric 37°C
	U/l	614	493	735	60.50	121.00	Ortho Vitros Microslide Systems 37°C
	U/l	53	43	63	5.00	10.00	Roche Colorimetric 37°C
	U/l	75	60	90	7.50	15.00	Randox Colorimetric 37°C
	U/l	382	306	458	38.00	76.00	Randox Turbidimetric with colipase 37°C
Lithium	mmol/l	2.41	2.12	2.70	0.15	0.29	Ortho Vitros Microslide Systems
	mg/dl	1.67	1.47	1.87	0.10	0.20	
	mmol/l	2.05	1.80	2.30	0.13	0.25	Flame photometry
	mg/dl	1.42	1.25	1.59	0.09	0.17	
	mmol/l	2.07	1.82	2.32	0.13	0.25	Ion selective electrode
	mg/dl	1.44	1.26	1.62	0.09	0.18	
	mmol/l	2.06	1.81	2.31	0.13	0.25	Spectrophotometric
	mg/dl	1.43	1.26	1.60	0.09	0.17	
	mmol/l	1.99	1.75	2.23	0.12	0.24	Randox Colorimetric
	mg/dl	1.38	1.22	1.54	0.08	0.16	

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Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

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Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Magnesium	mmol/l	1.66	1.46	1.86	0.10	0.20	Arsenazo III
	mg/dl	4.03	3.55	4.51	0.24	0.48	
	mmol/l	1.70	1.50	1.90	0.10	0.20	Ortho Vitros Microslide Systems
	mg/dl	4.13	3.65	4.61	0.24	0.48	
	mmol/l	1.74	1.53	1.95	0.11	0.21	Calmagite
	mg/dl	4.23	3.72	4.74	0.26	0.51	
	mmol/l	1.68	1.48	1.88	0.10	0.20	Xylidyl Blue
	mg/dl	4.08	3.60	4.56	0.24	0.48	
mmol/l	1.66	1.46	1.86	0.10	0.20	Methylthymol blue	
mg/dl	4.03	3.55	4.51	0.24	0.48		
mmol/l	1.58	1.39	1.77	0.10	0.19	Chlorphosphonazo III	
mg/dl	3.84	3.38	4.30	0.23	0.46		
NEFA	mmol/l	0.42	0.36	0.48	0.03	0.06	Colorimetric
Osmolality	mOsm/kg	339	272	406	33.50	67.00	Calculated
	mOsm/kg	385	308	462	38.50	77.00	Freezing point depression
Paracetamol	mmol/l	0.61	0.49	0.73	0.06	0.12	Immunoturbidimetric
	mg/l	92.5	74.0	111	9.25	18.50	
Phosphate Inorganic	mmol/l	2.19	1.86	2.52	0.17	0.33	Ortho Vitros Microslide Systems
	mg/dl	6.79	5.77	7.81	0.51	1.02	
	mmol/l	2.27	1.93	2.61	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	7.04	5.98	8.10	0.53	1.06	
mmol/l	2.28	1.94	2.62	0.17	0.34	Phosphomolybdate UV	
mg/dl	7.07	6.01	8.13	0.53	1.06		
Potassium	mmol/l	6.05	5.56	6.54	0.25	0.49	Ortho Vitros Microslide Systems
	mmol/l	5.94	5.46	6.42	0.24	0.48	Enzymatic

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Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

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Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Potassium	mmol/l	6.04	5.55	6.53	0.25	0.49	Flame photometry
	mmol/l	5.98	5.51	6.45	0.24	0.47	ISE method - direct
	mmol/l	6.04	5.56	6.52	0.24	0.48	ISE method - indirect
	mmol/l	5.90	5.43	6.37	0.24	0.47	Vitros DT60/DT60 II/DTE II
Protein Total	g/l	47.9	38.3	57.5	4.80	9.60	Ortho Vitros Microslide Systems
	g/dl	4.79	3.83	5.75	0.48	0.96	
	g/l	48.3	38.6	58.0	4.85	9.70	Biuret reaction end point
	g/dl	4.83	3.86	5.80	0.49	0.97	
	g/l	47.1	37.7	56.5	4.70	9.40	Biuret reaction kinetic
	g/dl	4.71	3.77	5.65	0.47	0.94	
PSA Total	ng/ml =	18.0	13.5	22.5	2.25	4.50	Abbott AxSYM - monoclonal
	ng/ml =	22.7	17.0	28.4	2.85	5.70	Roche Elecsys Modular E170
	ng/ml =	21.1	15.8	26.4	2.65	5.30	Beckman Access Hybritech TPSA
	ng/ml =	23.3	17.4	29.2	2.95	5.90	bioMerieux VIDAS TPSA
	ng/ml =	17.7	13.3	22.1	2.20	4.40	Siemens Advia Centaur
	ng/ml =	20.4	15.3	25.5	2.55	5.10	Abbott Architect
	ng/ml =	11.6	8.73	14.5	1.44	2.87	Ortho Vitros ECI
	ng/ml =	23.1	17.3	28.9	2.90	5.80	Cobas E411
	ng/ml =	22.3	16.7	27.9	2.80	5.60	Roche Cobas 6000
Salicylate	mmol/l	1.04	0.83	1.25	0.10	0.21	Colorimetric Trinder
	mg/dl	14.4	11.5	17.3	1.45	2.90	
Sodium	mmol/l	158	150	166	4.00	8.00	Ortho Vitros Microslide Systems
	mmol/l	156	148	164	4.00	8.00	Enzymatic
	mmol/l	159	151	167	4.00	8.00	Flame photometry
	mmol/l	157	149	165	4.00	8.00	ISE method - direct

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Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

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Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Sodium	mmol/l	158	150	166	4.00	8.00	ISE method - indirect
	mmol/l	158	150	166	4.00	8.00	Vitros DT60/DT60 II/DTE II
Theophylline	µmol/l	135	108	163	13.70	27.40	Immunoturbidimetric
	µg/ml	24.4	19.5	29.3	2.45	4.90	
Thyroid Stimulating Hormone	µU/ml =	1.07	0.86	1.28	0.11	0.21	Abbott Architect Ultrasensitive hTSH II
	µU/ml =	1.06	0.85	1.27	0.11	0.21	Abbott AxSYM Ultrasensitive hTSH II
	µU/ml =	1.25	1.00	1.50	0.13	0.25	Siemens ADVIA Centaur 3rd Generation
	µU/ml =	1.30	1.04	1.56	0.13	0.26	Beckman Access hyperTSH 3rd Generation
	µU/ml =	1.31	1.05	1.57	0.13	0.26	bioMerieux VIDAS TSH
	µU/ml =	1.33	1.06	1.60	0.14	0.27	Siemens Immulite 1000
	µU/ml =	1.25	1.00	1.50	0.13	0.25	Siemens Immulite 2000/2500
	µU/ml =	1.23	0.99	1.47	0.12	0.24	Vitros ECi
	µU/ml =	1.44	1.15	1.73	0.15	0.29	Roche Elecsys
	µU/ml =	1.47	1.18	1.76	0.15	0.29	Roche Modular E170
	µU/ml =	1.44	1.15	1.73	0.15	0.29	Roche Cobas E411
µU/ml =	1.47	1.17	1.77	0.15	0.30	Roche Cobas 6000	
TIBC	µmol/l	45.6	36.0	55.2	4.80	9.60	Removal of excess free iron
	µg/dl	255	201	309	27.00	54.00	
	µmol/l	44.0	34.8	53.2	4.60	9.20	FE+UIBC(saturation with iron)
	µg/dl	246	195	297	25.50	51.00	
	µmol/l	44.5	35.2	53.8	4.65	9.30	Direct Colorimetric
	µg/dl	249	197	301	26.00	52.00	
Tobramycin	µmol/l	14.7	11.8	17.7	1.47	2.94	Immunoturbidimetric
	µg/ml	6.90	5.52	8.28	0.69	1.38	

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Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Total T3	nmol/l	4.07	3.05	5.09	0.51	1.02	Abbott AXSYM
	ng/ml	2.65	1.99	3.31	0.33	0.66	
	ng/dl	265	199	331	33.00	66.00	Abbott AXSYM
	nmol/l	3.69	2.77	4.61	0.46	0.92	Abbott Architect
	ng/ml	2.40	1.80	3.00	0.30	0.60	
	ng/dl	240	180	300	30.00	60.00	Abbott Architect
	nmol/l	4.20	3.15	5.25	0.53	1.05	Siemens Immulite 2000/2500
	ng/ml	2.73	2.05	3.41	0.34	0.68	
	ng/dl	273	205	341	34.00	68.00	Siemens Immulite 2000/2500
	nmol/l	4.58	3.44	5.72	0.57	1.14	Roche Elecsys
	ng/ml	2.98	2.24	3.72	0.37	0.74	
	ng/dl	298	224	372	37.00	74.00	Roche Elecsys
Total T4	nmol/l	4.45	3.34	5.56	0.56	1.11	Roche Modular E170
	ng/ml	2.90	2.17	3.63	0.37	0.73	
	ng/dl	290	217	363	36.50	73.00	Roche Modular E170
	nmol/l	199	149	249	25.00	50.00	Abbott Architect
	µg/dl	15.5	11.6	19.4	1.95	3.90	
	ng/ml	155	116	194	19.50	39.00	Abbott Architect
	nmol/l	183	137	229	23.00	46.00	Abbott AXSYM
	µg/dl	14.3	10.7	17.9	1.80	3.60	
	ng/ml	143	107	179	18.00	36.00	Abbott AXSYM
	nmol/l	177	132	222	22.50	45.00	Siemens Immulite 2000/2500
	µg/dl	13.8	10.3	17.3	1.75	3.50	
	ng/ml	138	103	173	17.50	35.00	Siemens Immulite 2000/2500

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Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Total T4	nmol/l	173	130	216	21.50	43.00	Roche Modular E170
	µg/dl	13.5	10.1	16.9	1.70	3.40	
	ng/ml	135	101	169	17.00	34.00	Roche Modular E170
Transferrin	g/l	1.84	1.47	2.21	0.19	0.37	Immunoturbidimetric
	mg/dl	184	147	221	18.50	37.00	
Triglycerides	mmol/l	2.88	2.42	3.34	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	255	214	296	20.50	41.00	
	mmol/l	2.87	2.41	3.33	0.23	0.46	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	254	213	295	20.50	41.00	
	mmol/l	2.90	2.44	3.36	0.23	0.46	L/G Kinase EP. no correction
	mg/dl	257	216	298	20.50	41.00	
	mmol/l	2.88	2.42	3.34	0.23	0.46	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	255	214	296	20.50	41.00	
	mmol/l	2.93	2.46	3.40	0.24	0.47	Lipase/Glycerol Dehydrogenase
	mg/dl	259	218	300	20.50	41.00	
	mmol/l	3.51	2.95	4.07	0.28	0.56	Ortho Vitros Microslide Systems
	mg/dl	311	261	361	25.00	50.00	
	mmol/l	0.69	0.58	0.80	0.06	0.11	Lipase/GPO-PAP free glycerol correction
	mg/dl	60.8	51.1	70.5	4.85	9.70	
Urea	mmol/l	18.9	16.1	21.7	1.40	2.80	Ortho Vitros Microslide Systems
	mg/dl	114	96.8	131	8.60	17.20	
	mmol/l	20.2	17.1	23.3	1.55	3.10	Urease end point
	mg/dl	121	103	139	9.00	18.00	
	mmol/l	20.2	17.2	23.2	1.50	3.00	Urease kinetic
mg/dl	121	103	139	9.00	18.00		

MEAN OF ALL INSTRUMENTS			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Urea	mmol/l	19.4	16.5	22.3	1.45	2.90	Urease hypochlorite
	mg/dl	117	99.2	135	8.90	17.80	
	mmol/l	22.0	18.7	25.3	1.65	3.30	Urease Berthelot
	mg/dl	132	112	152	10.00	20.00	
	mmol/l	20.2	17.2	23.2	1.50	3.00	BUN
	mg/dl	56.7	48.2	65.2	4.25	8.50	
Uric Acid (Urate)	mmol/l	0.52	0.45	0.59	0.03	0.07	Ortho Vitros Microslide Systems
	mg/dl	8.74	7.59	9.89	0.58	1.15	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase catalase 340nm
	mg/dl	9.17	7.98	10.4	0.60	1.19	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.12	7.93	10.3	0.60	1.19	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.09	7.91	10.3	0.59	1.18	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Spectrophotometric at 280-290
	mg/dl	9.09	7.91	10.3	0.59	1.18	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.14	7.96	10.3	0.59	1.18	
Vitamin B12	pmol/l	184	147	221	18.50	37.00	Siemens Advia Centaur
	pg/ml	249	199	299	25.00	50.00	
Zinc	µmol/l	34.3	27.4	41.2	3.45	6.90	Atomic absorption
	µg/dl	224	179	269	22.50	45.00	
	µmol/l	36.0	28.8	43.2	3.60	7.20	Colorimetric with deproteinisation
	µg/dl	235	188	282	23.50	47.00	

MEAN OF ALL INSTRUMENTS (Elec.)

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin (electrophoresis)		59.2	53.3	65.1	2.95	5.90	% of total Protein (Beckman Capillary)
alpha-1-globulin		5.4	4.1	6.7	0.65	1.29	% of total Protein (Beckman Capillary)
alpha-2-globulin		10.1	7.6	12.5	1.21	2.41	% of total Protein (Beckman Capillary)
beta-globulin		13.2	10.0	16.4	1.61	3.21	% of total Protein (Beckman Capillary)
gamma-globulin		12.2	9.3	15.1	1.47	2.93	% of total Protein (Beckman Capillary)

MINDRAY BS-200/300/400

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	30.8	26.2	35.4	2.30	4.60	Bromocresol Green
	g/dl	3.08	2.62	3.54	0.23	0.46	
ALT (GPT)	U/l	131	105	157	13.00	26.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	97	78	116	9.50	19.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	74	59	89	7.50	15.00	Tris buffer no P5P IFCC/SFBC 25°C
AST (GOT)	U/l	139	111	167	14.00	28.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	94	75	113	9.50	19.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	66	53	79	6.50	13.00	Tris buffer no P5P IFCC/SFBC 25°C
Calcium	mmol/l	3.00	2.70	3.30	0.15	0.30	Arsenazo III
	mg/dl	12.0	10.8	13.2	0.60	1.20	
Cholesterol	mmol/l	7.27	6.33	8.21	0.47	0.94	Cholesterol Oxidase
	mg/dl	281	244	318	18.50	37.00	
CK Total	U/l	555	455	655	50.00	100.00	CK-NAC (IFCC) 37°C
	U/l	347	285	409	31.00	62.00	CK-NAC (IFCC) 30°C
	U/l	236	193	279	21.50	43.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	357	286	428	35.50	71.00	Alkaline picrate no deproteinization
	mg/dl	4.03	3.23	4.83	0.40	0.80	
	µmol/l	345	276	414	34.50	69.00	Jaffe rate blanked
	mg/dl	3.90	3.12	4.68	0.39	0.78	
gamma-GT	U/l	153	130	176	11.50	23.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	121	102	140	9.50	19.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	94	80	108	7.00	14.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C

MINDRAY BS-200/300/400			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich				
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Glucose	mmol/l	16.0	13.6	18.4	1.20	2.40	Glucose oxidase
	mg/dl	288	245	331	21.50	43.00	
Iron	µmol/l	37.8	31.0	44.6	3.40	6.80	Colorimetric without ppt.
	µg/dl	211	173	249	19.00	38.00	
Protein Total	g/l	50.9	40.7	61.1	5.10	10.20	Biuret reaction end point
	g/dl	5.09	4.07	6.11	0.51	1.02	
Triglycerides	mmol/l	2.88	2.42	3.34	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	255	214	296	20.50	41.00	
Urea	mmol/l	20.0	17.0	23.0	1.50	3.00	Urease kinetic
	mg/dl	120	102	138	9.00	18.00	
	mmol/l	20.0	17.0	23.0	1.50	3.00	BUN
	mg/dl	56.1	47.7	64.5	4.20	8.40	
Uric Acid (Urate)	mmol/l	0.57	0.50	0.65	0.04	0.08	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.61	8.35	10.9	0.63	1.26	
	mmol/l	0.53	0.46	0.59	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.84	7.69	9.99	0.58	1.15	

PRESTIGE 24i

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	32.7	27.8	37.6	2.45	4.90	Bromocresol Green
	g/dl	3.27	2.78	3.76	0.25	0.49	
Alkaline Phosphatase	U/l	456	388	524	34.00	68.00	Diethanolamine buffer DEA 37°C
	U/l	355	302	408	26.50	53.00	Diethanolamine buffer DEA 30°C
	U/l	291	248	334	21.50	43.00	Diethanolamine buffer DEA 25°C
ALT (GPT)	U/l	140	112	168	14.00	28.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	104	83	125	10.50	21.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	79	63	95	8.00	16.00	Tris buffer no P5P IFCC/SFBC 25°C
AST (GOT)	U/l	150	120	180	15.00	30.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	101	81	121	10.00	20.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	71	57	85	7.00	14.00	Tris buffer no P5P IFCC/SFBC 25°C
Bilirubin Total	µmol/l	79.4	62.7	96.1	8.35	16.70	Diazo with Dichloroaniline (DCA)
	mg/dl	4.64	3.67	5.61	0.49	0.97	
Calcium	mmol/l	3.12	2.81	3.43	0.16	0.31	Arsenazo III
	mg/dl	12.5	11.3	13.7	0.60	1.20	
Cholesterol	mmol/l	7.71	6.70	8.72	0.51	1.01	Cholesterol Oxidase
	mg/dl	298	259	337	19.50	39.00	
Creatinine	µmol/l	349	279	419	35.00	70.00	Alkaline picrate no deproteinization
	mg/dl	3.94	3.15	4.73	0.40	0.79	
Glucose	mmol/l	15.9	13.5	18.3	1.20	2.40	Glucose oxidase
	mg/dl	287	243	331	22.00	44.00	

PRESTIGE 24i

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Phosphate Inorganic	mmol/l	2.37	2.01	2.73	0.18	0.36	Phosphomolybdate UV
	mg/dl	7.35	6.23	8.47	0.56	1.12	
Protein Total	g/l	52.9	42.3	63.5	5.30	10.60	Biuret reaction end point
	g/dl	5.29	4.23	6.35	0.53	1.06	
Triglycerides	mmol/l	2.86	2.40	3.32	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	253	212	294	20.50	41.00	
Urea	mmol/l	21.1	18.0	24.2	1.55	3.10	Urease kinetic
	mg/dl	127	108	146	9.50	19.00	
	mmol/l	21.1	17.9	24.3	1.60	3.20	BUN
	mg/dl	59.2	50.3	68.1	4.45	8.90	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.02	7.85	10.2	0.59	1.17	
	mmol/l	0.55	0.48	0.63	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.29	8.08	10.5	0.61	1.21	

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Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	32.5	27.6	37.4	2.45	4.90	Bromocresol Green
	g/dl	3.25	2.76	3.74	0.25	0.49	
	g/l	29.1	24.7	33.5	2.20	4.40	Bromocresol Purple
	g/dl	2.91	2.47	3.35	0.22	0.44	
	g/l	26.5	22.5	30.5	2.00	4.00	Turbidimetric Assays
	g/dl	2.65	2.25	3.05	0.20	0.40	
Alkaline Phosphatase	U/l	265	225	305	20.00	40.00	Roche Integra AMP buffer 37°C
	U/l	206	175	237	15.50	31.00	Roche Integra AMP buffer 30°C
	U/l	169	144	194	12.50	25.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	136	108	164	14.00	28.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	101	80	122	10.50	21.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	77	61	93	8.00	16.00	Tris buffer no P5P IFCC/SFBC 25°C
Amylase Pancreatic	U/l	242	205	279	18.50	37.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	272	231	313	20.50	41.00	BM/Roche Colorimetric pNPG7 37°C
	U/l	267	227	307	20.00	40.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	267	227	307	20.00	40.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	138	110	166	14.00	28.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	93	74	112	9.50	19.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	66	52	80	7.00	14.00	Tris buffer no P5P IFCC/SFBC 25°C
Bicarbonate	mmol/l	18.3	14.5	22.1	1.90	3.80	Colorimetric
	mmol/l	18.1	14.3	21.9	1.90	3.80	Enzymatic

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Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Bilirubin Direct	µmol/l	20.0	15.8	24.2	2.10	4.20	Diazo with Sulphanilic Acid
	mg/dl	1.17	0.924	1.42	0.12	0.25	
	µmol/l	19.5	15.4	23.6	2.05	4.10	Roche JG factored
	mg/dl	1.14	0.901	1.38	0.12	0.24	
Bilirubin Total	µmol/l	76.0	60.1	91.9	7.95	15.90	Diazo with Sulphanilic Acid
	mg/dl	4.45	3.52	5.38	0.47	0.93	
	µmol/l	75.5	59.7	91.3	7.90	15.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.42	3.49	5.35	0.47	0.93	
	µmol/l	76.8	60.7	92.9	8.05	16.10	Diazonium ion
	mg/dl	4.49	3.55	5.43	0.47	0.94	
	µmol/l	75.5	59.6	91.4	7.95	15.90	DPD - Roche
	mg/dl	4.42	3.49	5.35	0.47	0.93	
Calcium	mmol/l	3.21	2.89	3.53	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.9	11.6	14.2	0.65	1.30	
Chloride	mmol/l	112	103	121	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.46	6.49	8.43	0.49	0.97	Cholesterol Oxidase
	mg/dl	288	251	325	18.50	37.00	
Cholinesterase	U/l	5575	4460	6690	557.50	1115.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	569	466	672	51.50	103.00	CK-NAC substrate start (DGKC) 37°C
	U/l	356	292	420	32.00	64.00	CK-NAC substrate start (DGKC) 30°C
	U/l	242	198	286	22.00	44.00	CK-NAC substrate start (DGKC) 25°C
	U/l	555	455	655	50.00	100.00	CK-NAC (IFCC) 37°C
	U/l	347	285	409	31.00	62.00	CK-NAC (IFCC) 30°C
	U/l	236	193	279	21.50	43.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	374	300	448	37.00	74.00	Alkaline picrate no deproteinization
	mg/dl	4.23	3.39	5.07	0.42	0.84	

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Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Creatinine	µmol/l	382	306	458	38.00	76.00	Randox Enzymatic UV method
	mg/dl	4.32	3.46	5.18	0.43	0.86	
	µmol/l	378	303	453	37.50	75.00	Roche Creatinine Plus
	mg/dl	4.27	3.42	5.12	0.43	0.85	
	µmol/l	365	292	438	36.50	73.00	Jaffe rate blanked
	mg/dl	4.12	3.30	4.94	0.41	0.82	
	µmol/l	366	293	439	36.50	73.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.14	3.31	4.97	0.42	0.83	
	µmol/l	367	294	440	36.50	73.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.15	3.32	4.98	0.42	0.83	
D-3-Hydroxybutyrate	mmol/l	1.14	0.97	1.31	0.09	0.17	Tris buffer 100mmol pH 8.5
Free T4	pmol/l	53.4	45.4	61.4	4.00	8.00	Roche Cobas 6000
	ng/dl	4.17	3.54	4.80	0.32	0.63	
	pg/ml	41.7	35.4	48.0	3.15	6.30	Roche Cobas 6000
gamma-GT	U/l	153	130	176	11.50	23.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	121	102	140	9.50	19.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	94	80	108	7.00	14.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	173	147	199	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	136	116	156	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	107	91	123	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.3	13.0	17.6	1.15	2.30	Hexokinase
	mg/dl	276	234	318	21.00	42.00	
	mmol/l	15.4	13.1	17.7	1.15	2.30	Glucose oxidase
	mg/dl	278	236	320	21.00	42.00	

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Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Iron	µmol/l	35.6	29.2	42.0	3.20	6.40	Colorimetric with ppt.
	µg/dl	199	163	235	18.00	36.00	
	µmol/l	36.2	29.7	42.7	3.25	6.50	Colorimetric without ppt.
	µg/dl	202	166	238	18.00	36.00	
Lactate	mmol/l	5.89	4.83	6.95	0.53	1.06	Colorimetric Lactate Oxidase
	mg/dl	53.1	43.5	62.7	4.80	9.60	
LD (LDH)	U/l	729	620	838	54.50	109.00	P->L German methods 37°C
	U/l	526	448	604	39.00	78.00	P->L German methods 30°C
	U/l	370	314	426	28.00	56.00	P->L German methods 25°C
	U/l	737	627	847	55.00	110.00	P->L SFBC 37°C
	U/l	532	453	611	39.50	79.00	P->L SFBC 30°C
	U/l	374	318	430	28.00	56.00	P->L SFBC 25°C
	U/l	384	326	442	29.00	58.00	L->P Roche/Randox 37°C
	U/l	277	235	319	21.00	42.00	L->P Roche/Randox 30°C
	U/l	195	165	225	15.00	30.00	L->P Roche/Randox 25°C
	U/l	383	326	440	28.50	57.00	L->P IFCC 37°C
	U/l	277	235	319	21.00	42.00	L->P IFCC 30°C
U/l	194	165	223	14.50	29.00	L->P IFCC 25°C	
Lipase	U/l	51	41	61	5.00	10.00	Roche Colorimetric 37°C
Lithium	mmol/l	2.00	1.76	2.24	0.12	0.24	Spectrophotometric
	mg/dl	1.39	1.22	1.56	0.09	0.17	
Magnesium	mmol/l	1.56	1.37	1.75	0.10	0.19	Chlorphosphonazo III
	mg/dl	3.79	3.33	4.25	0.23	0.46	
Phosphate Inorganic	mmol/l	2.28	1.94	2.62	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	7.07	6.01	8.13	0.53	1.06	

Roche Cobas 6000 c501 e601			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Phosphate Inorganic	mmol/l	2.27	1.93	2.61	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.04	5.98	8.10	0.53	1.06	
Potassium	mmol/l	6.05	5.57	6.53	0.24	0.48	ISE method - indirect
Protein Total	g/l	47.5	38.0	57.0	4.75	9.50	Biuret reaction end point
	g/dl	4.75	3.80	5.70	0.48	0.95	
PSA Total	ng/ml =	22.3	16.7	27.9	2.80	5.60	Roche Cobas 6000
Sodium	mmol/l	159	151	167	4.00	8.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.47	1.17	1.77	0.15	0.30	Roche Cobas 6000
TIBC	µmol/l	43.1	34.0	52.2	4.55	9.10	FE+UIBC(saturation with iron)
	µg/dl	241	190	292	25.50	51.00	
	µmol/l	44.4	35.1	53.7	4.65	9.30	Direct Colorimetric
	µg/dl	248	196	300	26.00	52.00	
Triglycerides	mmol/l	2.83	2.38	3.28	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	250	211	289	19.50	39.00	
	mmol/l	2.83	2.38	3.28	0.23	0.45	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	250	211	289	19.50	39.00	
	mmol/l	2.98	2.50	3.46	0.24	0.48	L/G Kinase EP. no correction
	mg/dl	264	221	307	21.50	43.00	
	mmol/l	2.95	2.47	3.43	0.24	0.48	Lipase/Glycerol Dehydrogenase
	mg/dl	261	219	303	21.00	42.00	
Urea	mmol/l	20.0	17.0	23.0	1.50	3.00	Urease kinetic
	mg/dl	120	102	138	9.00	18.00	
	mmol/l	20.0	17.0	23.0	1.50	3.00	BUN
	mg/dl	56.1	47.7	64.5	4.20	8.40	
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	8.94	7.78	10.1	0.58	1.16	

Roche Cobas 6000 c501 e601

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.00	7.83	10.2	0.59	1.17	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.00	7.83	10.2	0.59	1.17	

Roche Cobas C111®		Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)					
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	31.7	26.9	36.5	2.40	4.80	Bromocresol Green
	g/dl	3.17	2.69	3.65	0.24	0.48	
Alkaline Phosphatase	U/l	252	214	290	19.00	38.00	Roche Integra AMP buffer 37°C
	U/l	196	167	225	14.50	29.00	Roche Integra AMP buffer 30°C
	U/l	161	137	185	12.00	24.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	136	109	163	13.50	27.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	101	81	121	10.00	20.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	77	61	93	8.00	16.00	Tris buffer no P5P IFCC/SFBC 25°C
Amylase Total	U/l	271	230	312	20.50	41.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	137	110	164	13.50	27.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	93	74	112	9.50	19.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	65	52	78	6.50	13.00	Tris buffer no P5P IFCC/SFBC 25°C
Bilirubin Direct	µmol/l	20.8	16.4	25.2	2.20	4.40	Diazo with Sulphanilic Acid
	mg/dl	1.22	0.959	1.48	0.13	0.26	
Bilirubin Total	µmol/l	77.8	61.5	94.1	8.15	16.30	Diazo with Sulphanilic Acid
	mg/dl	4.55	3.60	5.50	0.48	0.95	
	µmol/l	73.9	58.4	89.4	7.75	15.50	Diazonium ion
	mg/dl	4.32	3.42	5.22	0.45	0.90	
Calcium	mmol/l	3.22	2.90	3.54	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.9	11.6	14.2	0.65	1.30	
Chloride	mmol/l	115	106	124	4.50	9.00	ISE indirect

Roche Cobas C111®		Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)					
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Cholesterol	mmol/l	7.55	6.57	8.53	0.49	0.98	Cholesterol Oxidase
	mg/dl	291	254	328	18.50	37.00	
CK Total	U/l	528	433	623	47.50	95.00	CK-NAC (IFCC) 37°C
	U/l	331	271	391	30.00	60.00	CK-NAC (IFCC) 30°C
	U/l	224	184	264	20.00	40.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	353	282	424	35.50	71.00	Alkaline picrate no deproteinization
	mg/dl	3.99	3.19	4.79	0.40	0.80	
	µmol/l	357	286	428	35.50	71.00	Roche Creatinine Plus
	mg/dl	4.03	3.23	4.83	0.40	0.80	
	µmol/l	335	268	402	33.50	67.00	Jaffe rate blanked compensated (-18 µmol/l)
mg/dl	3.79	3.03	4.55	0.38	0.76		
gamma-GT	U/l	166	141	191	12.50	25.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	131	111	151	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	102	87	117	7.50	15.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.5	13.2	17.8	1.15	2.30	Hexokinase
	mg/dl	279	238	320	20.50	41.00	
Magnesium	mmol/l	1.59	1.40	1.78	0.10	0.19	Chlorphosphonazo III
	mg/dl	3.86	3.40	4.32	0.23	0.46	
Phosphate Inorganic	mmol/l	2.33	1.98	2.68	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.22	6.14	8.30	0.54	1.08	
Potassium	mmol/l	5.99	5.51	6.47	0.24	0.48	ISE method - indirect
Protein Total	g/l	47.8	38.3	57.3	4.75	9.50	Biuret reaction end point
	g/dl	4.78	3.83	5.73	0.48	0.95	
Sodium	mmol/l	156	149	163	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	2.89	2.43	3.35	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	256	215	297	20.50	41.00	

Roche Cobas C111®

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Triglycerides	mmol/l	2.93	2.46	3.40	0.24	0.47	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	259	218	300	20.50	41.00	
Urea	mmol/l	19.9	16.9	22.9	1.50	3.00	Urease kinetic
	mg/dl	120	102	138	9.00	18.00	
	mmol/l	19.9	16.9	22.9	1.50	3.00	BUN
	mg/dl	55.9	47.5	64.3	4.20	8.40	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.04	7.86	10.2	0.59	1.18	
	mmol/l	0.53	0.46	0.59	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.82	7.68	9.96	0.57	1.14	

Roche Cobas C311®

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	32.2	27.4	37.0	2.40	4.80	Bromocresol Green
	g/dl	3.22	2.74	3.70	0.24	0.48	
	g/l	29.5	25.1	33.9	2.20	4.40	Bromocresol Purple
	g/dl	2.95	2.51	3.39	0.22	0.44	
Alkaline Phosphatase	U/l	260	221	299	19.50	39.00	Roche Integra AMP buffer 37°C
	U/l	203	172	234	15.50	31.00	Roche Integra AMP buffer 30°C
	U/l	166	141	191	12.50	25.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	135	108	162	13.50	27.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	100	80	120	10.00	20.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	76	61	91	7.50	15.00	Tris buffer no P5P IFCC/SFBC 25°C
Amylase Total	U/l	271	231	311	20.00	40.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	138	111	165	13.50	27.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	93	75	111	9.00	18.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	66	53	79	6.50	13.00	Tris buffer no P5P IFCC/SFBC 25°C
Bicarbonate	mmol/l	18.0	14.3	21.7	1.85	3.70	Enzymatic
Bilirubin Direct	µmol/l	17.7	14.0	21.4	1.85	3.70	Diazo with Sulphanilic Acid
	mg/dl	1.04	0.819	1.26	0.11	0.22	
	µmol/l	18.7	14.7	22.7	2.00	4.00	Roche JG factored
	mg/dl	1.09	0.860	1.32	0.12	0.23	
Bilirubin Total	µmol/l	75.3	59.5	91.1	7.90	15.80	Diazo with Sulphanilic Acid
	mg/dl	4.41	3.48	5.34	0.47	0.93	

Roche Cobas C311®		Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)					
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Bilirubin Total	µmol/l	76.5	60.4	92.6	8.05	16.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.48	3.53	5.43	0.48	0.95	
Calcium	mmol/l	3.20	2.88	3.52	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.8	11.5	14.1	0.65	1.30	
Chloride	mmol/l	112	103	121	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.46	6.49	8.43	0.49	0.97	Cholesterol Oxidase
	mg/dl	288	251	325	18.50	37.00	
CK Total	U/l	557	457	657	50.00	100.00	CK-NAC (IFCC) 37°C
	U/l	349	286	412	31.50	63.00	CK-NAC (IFCC) 30°C
	U/l	237	194	280	21.50	43.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	383	306	460	38.50	77.00	Roche Creatinine Plus
	mg/dl	4.33	3.46	5.20	0.44	0.87	
	µmol/l	362	289	435	36.50	73.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.09	3.27	4.91	0.41	0.82	
gamma-GT	µmol/l	363	290	436	36.50	73.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.10	3.28	4.92	0.41	0.82	
	U/l	157	134	180	11.50	23.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	124	106	142	9.00	18.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
Glucose	U/l	97	83	111	7.00	14.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	169	144	194	12.50	25.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	133	113	153	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	104	89	119	7.50	15.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.4	13.1	17.7	1.15	2.30	Hexokinase
	mg/dl	278	236	320	21.00	42.00	
	mmol/l	15.3	13.0	17.6	1.15	2.30	Glucose oxidase
	mg/dl	276	234	318	21.00	42.00	

Roche Cobas C311®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich				
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Iron	µmol/l	36.0	29.5	42.5	3.25	6.50	Colorimetric without ppt.
	µg/dl	201	165	237	18.00	36.00	
LD (LDH)	U/l	385	328	442	28.50	57.00	L->P Roche/Randox 37°C
	U/l	278	237	319	20.50	41.00	L->P Roche/Randox 30°C
	U/l	195	166	224	14.50	29.00	L->P Roche/Randox 25°C
	U/l	378	321	435	28.50	57.00	L->P IFCC 37°C
	U/l	273	232	314	20.50	41.00	L->P IFCC 30°C
	U/l	192	163	221	14.50	29.00	L->P IFCC 25°C
Lipase	U/l	51	41	61	5.00	10.00	Roche Colorimetric 37°C
Magnesium	mmol/l	1.57	1.38	1.76	0.10	0.19	Chlorphosphonazo III
	mg/dl	3.82	3.35	4.29	0.24	0.47	
Phosphate Inorganic	mmol/l	2.29	1.95	2.63	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.10	6.05	8.15	0.53	1.05	
Potassium	mmol/l	6.03	5.55	6.51	0.24	0.48	ISE method - indirect
Protein Total	g/l	48.1	38.5	57.7	4.80	9.60	Biuret reaction end point
	g/dl	4.81	3.85	5.77	0.48	0.96	
Sodium	mmol/l	159	151	167	4.00	8.00	ISE method - indirect
TIBC	µmol/l	44.8	35.4	54.2	4.70	9.40	FE+UIBC(saturation with iron)
	µg/dl	250	198	302	26.00	52.00	
Triglycerides	mmol/l	2.82	2.37	3.27	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	250	210	290	20.00	40.00	
	mmol/l	2.87	2.41	3.33	0.23	0.46	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	254	213	295	20.50	41.00	
Urea	mmol/l	20.2	17.2	23.2	1.50	3.00	Urease kinetic
	mg/dl	121	103	139	9.00	18.00	

Roche Cobas C311®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml		Verw. bis: 2014-12					
Parameter	Einheit	Zielwert	Bereich		1SD	2SD	Methoden
von	bis						
Urea	mmol/l	20.2	17.2	23.2	1.50	3.00	BUN
	mg/dl	56.7	48.2	65.2	4.25	8.50	
Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.21	8.01	10.4	0.60	1.20	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.24	8.05	10.4	0.60	1.19	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.19	8.00	10.4	0.60	1.19	

RX DAYTONA®/IMOLA®		Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)					
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	31.1	26.4	35.8	2.35	4.70	Bromocresol Green
	g/dl	3.11	2.64	3.58	0.24	0.47	
Alkaline Phosphatase	U/l	480	408	552	36.00	72.00	Diethanolamine buffer DEA 37°C
	U/l	331	281	381	25.00	50.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	142	113	171	14.50	29.00	Tris buffer no P5P IFCC/SFBC 37°C
Amylase Pancreatic	U/l	274	233	315	20.50	41.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	308	262	354	23.00	46.00	Randox liquid stable pNPG7 37°C
AST (GOT)	U/l	144	116	172	14.00	28.00	Tris buffer no P5P IFCC/SFBC 37°C
Bicarbonate	mmol/l	19.5	15.5	23.5	2.00	4.00	Enzymatic
Bile Acids	µmol/l	44.4	35.5	53.3	4.45	8.90	5th Generation Colorimetric
Bilirubin Direct	µmol/l	31.7	25.0	38.4	3.35	6.70	Diazo with Sulphanilic Acid
	mg/dl	1.85	1.46	2.24	0.20	0.39	
Bilirubin Total	µmol/l	86.7	68.5	105	9.10	18.20	Diazo with Sulphanilic Acid
	mg/dl	5.07	4.01	6.13	0.53	1.06	
Calcium	mmol/l	3.05	2.75	3.35	0.15	0.30	Cresolphthalein complexone
	mg/dl	12.2	11.0	13.4	0.60	1.20	
	mmol/l	3.10	2.79	3.41	0.16	0.31	Arsenazo III
	mg/dl	12.4	11.2	13.6	0.60	1.20	
Chloride	mmol/l	113	104	122	4.50	9.00	ISE direct
Cholesterol	mmol/l	7.43	6.46	8.40	0.49	0.97	Cholesterol Oxidase
	mg/dl	287	249	325	19.00	38.00	

RX DAYTONA®/IMOLA®		Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)					
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
CK Total	U/l	541	444	638	48.50	97.00	CK-NAC substrate start (DGKC) 37°C
	U/l	563	462	664	50.50	101.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	327	261	393	33.00	66.00	Alkaline picrate no deproteinization
	mg/dl	3.70	2.95	4.45	0.38	0.75	
gamma-GT	U/l	175	149	201	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	15.8	13.4	18.2	1.20	2.40	Hexokinase
	mg/dl	285	241	329	22.00	44.00	
	mmol/l	16.1	13.7	18.5	1.20	2.40	Glucose oxidase
	mg/dl	290	247	333	21.50	43.00	
Iron	µmol/l	37.0	30.4	43.6	3.30	6.60	Colorimetric without ppt.
	µg/dl	207	170	244	18.50	37.00	
Lactate	mmol/l	5.79	4.75	6.83	0.52	1.04	Enzymatic Colorimetric
	mg/dl	52.2	42.8	61.6	4.70	9.40	
LD (LDH)	U/l	747	635	859	56.00	112.00	P->L German methods 37°C
	U/l	364	309	419	27.50	55.00	L->P IFCC 37°C
Lipase	U/l	71	57	85	7.00	14.00	Randox Colorimetric 37°C
Lithium	mmol/l	2.02	1.78	2.26	0.12	0.24	Randox Colorimetric
	mg/dl	1.40	1.24	1.56	0.08	0.16	
Magnesium	mmol/l	1.70	1.50	1.90	0.10	0.20	Xylidyl Blue
	mg/dl	4.13	3.65	4.61	0.24	0.48	
Phosphate Inorganic	mmol/l	2.27	1.93	2.61	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.04	5.98	8.10	0.53	1.06	
Potassium	mmol/l	5.88	5.41	6.35	0.24	0.47	ISE method - direct
	mmol/l	5.91	5.44	6.38	0.24	0.47	Enzymatic
Protein Total	g/l	48.4	38.7	58.1	4.85	9.70	Biuret reaction end point
	g/dl	4.84	3.87	5.81	0.49	0.97	

RX DAYTONA®/IMOLA®

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Natrium	mmol/l	158	150	166	4.00	8.00	ISE method - direct
	mmol/l	159	151	167	4.00	8.00	Enzymatic
TIBC	µmol/l	44.9	35.5	54.3	4.70	9.40	Direct Colorimetric
	µg/dl	251	198	304	26.50	53.00	
Triglycerides	mmol/l	2.86	2.40	3.32	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	253	212	294	20.50	41.00	
Urea	mmol/l	20.0	17.0	23.0	1.50	3.00	Urease kinetic
	mg/dl	120	102	138	9.00	18.00	
	mmol/l	20.0	17.0	23.0	1.50	3.00	BUN
	mg/dl	56.1	47.7	64.5	4.20	8.40	
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.89	7.74	10.0	0.58	1.15	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.09	7.91	10.3	0.59	1.18	

SIEMENS ADVIA 1200/1650/2400®

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	30.6	26.0	35.2	2.30	4.60	Bromocresol Green
	g/dl	3.06	2.60	3.52	0.23	0.46	
Alkaline Phosphatase	U/l	488	415	561	36.50	73.00	Diethanolamine buffer DEA 37°C
	U/l	340	289	391	25.50	51.00	AMP optimised to IFCC 37°C
	U/l	339	288	390	25.50	51.00	AMP non-optimised 37°C
ALT (GPT)	U/l	137	109	165	14.00	28.00	Tris buffer no P5P IFCC/SFBC 37°C
Amylase Pancreatic	U/l	245	208	282	18.50	37.00	Immuno-inhibition EPS substrate 37°C
Amylase Total	U/l	276	235	317	20.50	41.00	Siemens - blocked pNPG7 37°C
	U/l	289	245	333	22.00	44.00	Randox - Ethylidene pNPG7 37°C
AST (GOT)	U/l	138	110	166	14.00	28.00	Tris buffer no P5P IFCC/SFBC 37°C
Bicarbonate	mmol/l	19.0	15.1	22.9	1.95	3.90	Enzymatic
Bilirubin Direct	µmol/l	30.7	24.3	37.1	3.20	6.40	Diazo with Sulphanilic Acid
	mg/dl	1.80	1.42	2.18	0.19	0.38	
	µmol/l	30.1	23.7	36.5	3.20	6.40	Oxidation to Biliverdin
	mg/dl	1.76	1.39	2.13	0.19	0.37	
Bilirubin Total	µmol/l	89.7	70.8	109	9.45	18.90	Diazo with Sulphanilic Acid
	mg/dl	5.25	4.14	6.36	0.56	1.11	
	µmol/l	87.7	69.3	106	9.20	18.40	Oxidation to Biliverdin
	mg/dl	5.13	4.05	6.21	0.54	1.08	
Calcium	mmol/l	3.08	2.77	3.39	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.3	11.1	13.5	0.60	1.20	

SIEMENS ADVIA 1200/1650/2400®

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Calcium	mmol/l	3.10	2.79	3.41	0.16	0.31	Arsenazo III
	mg/dl	12.4	11.2	13.6	0.60	1.20	
Chloride	mmol/l	116	106	126	5.00	10.00	ISE indirect
Cholesterol	mmol/l	7.31	6.36	8.26	0.48	0.95	Cholesterol Oxidase
	mg/dl	282	245	319	18.50	37.00	
CK Total	U/l	557	457	657	50.00	100.00	CK-NAC serum start (DGKC) 37°C
	U/l	526	431	621	47.50	95.00	CK-NAC substrate start (DGKC) 37°C
	U/l	531	435	627	48.00	96.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	360	288	432	36.00	72.00	Alkaline picrate no deproteinization
	mg/dl	4.07	3.25	4.89	0.41	0.82	
	µmol/l	383	306	460	38.50	77.00	Randox Enzymatic UV method
	mg/dl	4.33	3.46	5.20	0.44	0.87	
	µmol/l	378	302	454	38.00	76.00	Jaffe rate blanked
	mg/dl	4.27	3.41	5.13	0.43	0.86	
µmol/l	364	291	437	36.50	73.00	Jaffe rate blanked comp. (-26 µmol/l)	
mg/dl	4.11	3.29	4.93	0.41	0.82		
gamma-GT	U/l	162	138	186	12.00	24.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	15.8	13.4	18.2	1.20	2.40	Hexokinase
	mg/dl	285	241	329	22.00	44.00	
	mmol/l	16.0	13.6	18.4	1.20	2.40	Glucose oxidase
	mg/dl	288	245	331	21.50	43.00	
Iron	µmol/l	36.6	30.0	43.2	3.30	6.60	Colorimetric without ppt.
	µg/dl	205	168	242	18.50	37.00	
LD (LDH)	U/l	376	320	432	28.00	56.00	L->P 37°C
	U/l	734	624	844	55.00	110.00	P->L German methods 37°C

SIEMENS ADVIA 1200/1650/2400®			Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)				
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
LD (LDH)	U/l	377	321	433	28.00	56.00	L->P IFCC 37°C
Lipase	U/l	63	51	75	6.00	12.00	Other Colorimetric 37°C
Magnesium	mmol/l	1.68	1.48	1.88	0.10	0.20	Xylidyl Blue
	mg/dl	4.08	3.60	4.56	0.24	0.48	
Phosphate Inorganic	mmol/l	2.29	1.95	2.63	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.10	6.05	8.15	0.53	1.05	
Potassium	mmol/l	6.09	5.60	6.58	0.25	0.49	ISE method - indirect
Protein Total	g/l	48.7	39.0	58.4	4.85	9.70	Biuret reaction end point
	g/dl	4.87	3.90	5.84	0.49	0.97	
Sodium	mmol/l	159	151	167	4.00	8.00	ISE method - indirect
TIBC	µmol/l	44.9	35.5	54.3	4.70	9.40	Removal of excess free iron
	µg/dl	251	198	304	26.50	53.00	
Triglycerides	mmol/l	2.91	2.44	3.38	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	258	216	300	21.00	42.00	
	mmol/l	2.92	2.46	3.38	0.23	0.46	L/G Kinase EP. no correction
	mg/dl	258	218	298	20.00	40.00	
Urea	mmol/l	20.7	17.6	23.8	1.55	3.10	Urease kinetic
	mg/dl	124	106	142	9.00	18.00	
	mmol/l	20.7	17.6	23.8	1.55	3.10	BUN
	mg/dl	58.1	49.4	66.8	4.35	8.70	
Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.26	8.05	10.5	0.61	1.21	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.21	8.01	10.4	0.60	1.20	

SIEMENS/DADE DIMENSION RxL/Max/Xpand®							
Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)							
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich				
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	30.3	25.8	34.8	2.25	4.50	Bromocresol Purple
	g/dl	3.03	2.58	3.48	0.23	0.45	
Alkaline Phosphatase	U/l	247	210	284	18.50	37.00	Siemens Dimension AMP buffer 37°C
	U/l	295	251	339	22.00	44.00	Randox AMP 37°C
ALT (GPT)	U/l	127	101	153	13.00	26.00	Tris buffer with P5P IFCC/SFBC 37°C
	U/l	138	110	166	14.00	28.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	331	282	380	24.50	49.00	Siemens - maltopenta/hexaoside 37°C
	U/l	327	278	376	24.50	49.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	153	123	183	15.00	30.00	Tris buffer with P5P IFCC/SFBC 37°C
	U/l	152	122	182	15.00	30.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	18.3	14.6	22.0	1.85	3.70	Enzymatic
Bilirubin Direct	µmol/l	17.1	13.5	20.7	1.80	3.60	Diazo with Sulphanilic Acid
	mg/dl	1.00	0.790	1.21	0.11	0.21	
	µmol/l	17.5	13.8	21.2	1.85	3.70	Diazo with Dichloroaniline (DCA)
	mg/dl	1.02	0.807	1.23	0.11	0.21	
Bilirubin Total	µmol/l	80.8	63.8	97.8	8.50	17.00	Diazo with Sulphanilic Acid
	mg/dl	4.73	3.73	5.73	0.50	1.00	
Calcium	mmol/l	3.04	2.73	3.35	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.2	10.9	13.5	0.65	1.30	
Chloride	mmol/l	114	105	123	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.10	6.18	8.02	0.46	0.92	Dimension-Siemens reagents
	mg/dl	274	239	309	17.50	35.00	

SIEMENS/DADE DIMENSION RxL/Max/Xpand® Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)							
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12			Bereich				
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
CK Total	U/l	526	431	621	47.50	95.00	CK-NAC (IFCC) 37°C
	U/l	524	430	618	47.00	94.00	Dithioerythritol 37°C
	U/l	524	430	618	47.00	94.00	Dithioerythritol (DTE) IFCC correlated 37°C
Creatinine	µmol/l	375	300	450	37.50	75.00	Alkaline picrate with deproteinization
	mg/dl	4.24	3.39	5.09	0.43	0.85	
	µmol/l	380	304	456	38.00	76.00	Alkaline picrate no deproteinization
	mg/dl	4.29	3.44	5.14	0.43	0.85	
	µmol/l	382	305	459	38.50	77.00	Jaffe rate blanked
	mg/dl	4.32	3.45	5.19	0.44	0.87	
	µmol/l	376	301	451	37.50	75.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.25	3.40	5.10	0.43	0.85	
gamma-GT	U/l	178	151	205	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	203	173	233	15.00	30.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	15.1	12.8	17.4	1.15	2.30	Hexokinase
	mg/dl	272	231	313	20.50	41.00	
Iron	µmol/l	34.5	28.3	40.7	3.10	6.20	Colorimetric with ppt.
	µg/dl	193	158	228	17.50	35.00	
	µmol/l	34.9	28.6	41.2	3.15	6.30	Colorimetric without ppt.
	µg/dl	195	160	230	17.50	35.00	
Lactate	mmol/l	6.08	4.98	7.18	0.55	1.10	Colorimetric Lactate Oxidase
	mg/dl	54.8	44.9	64.7	4.95	9.90	
	mmol/l	5.99	4.91	7.07	0.54	1.08	UV LDH
	mg/dl	54.0	44.2	63.8	4.90	9.80	

SIEMENS/DADE DIMENSION RxL/Max/Xpand®							
Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)							
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
LD (LDH)	U/l	330	281	379	24.50	49.00	L->P 37°C
	U/l	397	338	456	29.50	59.00	L->P IFCC 37°C
Lipase	U/l	231	186	276	22.50	45.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Lithium	mmol/l	2.21	1.94	2.48	0.14	0.27	Spectrophotometric
	mg/dl	1.53	1.35	1.71	0.09	0.18	
Magnesium	mmol/l	1.65	1.45	1.85	0.10	0.20	Methylthymol blue
	mg/dl	4.01	3.52	4.50	0.25	0.49	
Phosphate Inorganic	mmol/l	2.20	1.87	2.53	0.17	0.33	Phosphomolybdate enzymatic
	mg/dl	6.82	5.80	7.84	0.51	1.02	
	mmol/l	2.27	1.93	2.61	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.04	5.98	8.10	0.53	1.06	
Potassium	mmol/l	6.03	5.55	6.51	0.24	0.48	ISE method - indirect
Protein Total	g/l	49.4	39.5	59.3	4.95	9.90	Biuret reaction end point
	g/dl	4.94	3.95	5.93	0.50	0.99	
Sodium	mmol/l	158	150	166	4.00	8.00	ISE method - indirect
TIBC	µmol/l	42.6	33.7	51.5	4.45	8.90	Removal of excess free iron
	µg/dl	238	188	288	25.00	50.00	
Triglycerides	mmol/l	2.92	2.45	3.39	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	258	217	299	20.50	41.00	
	mmol/l	2.92	2.46	3.38	0.23	0.46	L/G Kinase EP. no correction
	mg/dl	258	218	298	20.00	40.00	
	mmol/l	2.93	2.46	3.40	0.24	0.47	Lipase/Glycerol Dehydrogenase
	mg/dl	259	218	300	20.50	41.00	
Urea	mmol/l	20.5	17.4	23.6	1.55	3.10	Urease end point
	mg/dl	123	105	141	9.00	18.00	

SIEMENS/DADE DIMENSION RxL/Max/Xpand® Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Urea	mmol/l	20.5	17.4	23.6	1.55	3.10	Urease kinetic
	mg/dl	123	105	141	9.00	18.00	
	mmol/l	20.5	17.4	23.6	1.55	3.10	BUN
	mg/dl	57.5	48.9	66.1	4.30	8.60	
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase catalase 340nm
	mg/dl	8.95	7.80	10.1	0.58	1.15	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.99	7.81	10.2	0.59	1.18	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Spectrophotometric at 280-290
	mg/dl	9.07	7.90	10.2	0.59	1.17	

Siemens/Dade Dimension Vista

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	31.6	26.9	36.3	2.35	4.70	Bromocresol Purple
	g/dl	3.16	2.69	3.63	0.24	0.47	
Alkaline Phosphatase	U/l	287	244	330	21.50	43.00	Siemens Dimension AMP buffer 37°C
ALT (GPT)	U/l	149	119	179	15.00	30.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	314	267	361	23.50	47.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	147	118	176	14.50	29.00	Tris buffer with P5P IFCC/SFBC 37°C
Bicarbonate	mmol/l	16.8	13.3	20.3	1.75	3.50	Enzymatic
Bilirubin Direct	µmol/l	18.9	14.9	22.9	2.00	4.00	Diazo with Sulphanilic Acid
	mg/dl	1.11	0.872	1.35	0.12	0.24	
Bilirubin Total	µmol/l	80.8	63.9	97.7	8.45	16.90	Diazo with Sulphanilic Acid
	mg/dl	4.73	3.74	5.72	0.50	0.99	
Calcium	mmol/l	3.04	2.73	3.35	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.2	10.9	13.5	0.65	1.30	
Chloride	mmol/l	117	108	126	4.50	9.00	ISE indirect
Cholesterol	mmol/l	6.99	6.09	7.89	0.45	0.90	Cholesterol Oxidase
	mg/dl	270	235	305	17.50	35.00	
gamma-GT	U/l	214	182	246	16.00	32.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	15.3	13.0	17.6	1.15	2.30	Hexokinase
	mg/dl	276	234	318	21.00	42.00	
Iron	µmol/l	35.2	28.9	41.5	3.15	6.30	Colorimetric without ppt.
	µg/dl	197	162	232	17.50	35.00	

Siemens/Dade Dimension Vista

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Lactate	mmol/l	5.86	4.80	6.92	0.53	1.06	UV LDH
	mg/dl	52.8	43.2	62.4	4.80	9.60	
LD (LDH)	U/l	405	344	466	30.50	61.00	L->P IFCC 37°C
Lipase	U/l	287	230	344	28.50	57.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Magnesium	mmol/l	1.76	1.55	1.97	0.11	0.21	Methylthymol blue
	mg/dl	4.28	3.77	4.79	0.26	0.51	
Phosphate Inorganic	mmol/l	2.25	1.91	2.59	0.17	0.34	Phosphomolybdate UV
	mg/dl	6.98	5.92	8.04	0.53	1.06	
Potassium	mmol/l	6.13	5.64	6.62	0.25	0.49	ISE method - indirect
Protein Total	g/l	49.3	39.5	59.1	4.90	9.80	Biuret reaction end point
	g/dl	4.93	3.95	5.91	0.49	0.98	
Sodium	mmol/l	158	150	166	4.00	8.00	ISE method - indirect
Triglycerides	mmol/l	3.08	2.59	3.57	0.25	0.49	Lipase/GPO-PAP no correction
	mg/dl	273	229	317	22.00	44.00	
Urea	mmol/l	21.1	17.9	24.3	1.60	3.20	Urease kinetic
	mg/dl	127	108	146	9.50	19.00	
	mmol/l	21.1	17.9	24.3	1.60	3.20	BUN
	mg/dl	59.2	50.3	68.1	4.45	8.90	
Uric Acid (Urate)	mmol/l	0.50	0.43	0.56	0.03	0.07	Spectrophotometric at 280-290
	mg/dl	8.38	7.29	9.47	0.55	1.09	

VITALAB SELECTRA®		Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)					
Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611							
Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12		Bereich					
Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	32.2	27.4	37.0	2.40	4.80	Bromocresol Green
	g/dl	3.22	2.74	3.70	0.24	0.48	
Alkaline Phosphatase	U/l	468	398	538	35.00	70.00	Diethanolamine buffer DEA 37°C
	U/l	328	279	377	24.50	49.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	139	111	167	14.00	28.00	Tris buffer no P5P IFCC/SFBC 37°C
AST (GOT)	U/l	140	112	168	14.00	28.00	Tris buffer no P5P IFCC/SFBC 37°C
Bilirubin Total	µmol/l	87.6	69.2	106	9.20	18.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	5.12	4.05	6.19	0.54	1.07	
Calcium	mmol/l	2.99	2.69	3.29	0.15	0.30	Cresolphthalein complexone
	mg/dl	12.0	10.8	13.2	0.60	1.20	
	mmol/l	3.08	2.77	3.39	0.16	0.31	Arsenazo III
	mg/dl	12.3	11.1	13.5	0.60	1.20	
Cholesterol	mmol/l	7.30	6.35	8.25	0.48	0.95	Cholesterol Oxidase
	mg/dl	282	245	319	18.50	37.00	
CK Total	U/l	567	465	669	51.00	102.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	344	275	413	34.50	69.00	Alkaline picrate no deproteinization
	mg/dl	3.89	3.11	4.67	0.39	0.78	
	µmol/l	378	303	453	37.50	75.00	Jaffe rate blanked
	mg/dl	4.27	3.42	5.12	0.43	0.85	
gamma-GT	U/l	141	120	162	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	15.6	13.3	17.9	1.15	2.30	Glucose oxidase
	mg/dl	281	240	322	20.50	41.00	

VITALAB SELECTRA®

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Phosphate Inorganic	mmol/l	2.30	1.96	2.64	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.13	6.08	8.18	0.53	1.05	
Protein Total	g/l	50.6	40.5	60.7	5.05	10.10	Biuret reaction end point
	g/dl	5.06	4.05	6.07	0.51	1.01	
Triglycerides	mmol/l	2.82	2.37	3.27	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	250	210	290	20.00	40.00	
Urea	mmol/l	20.0	17.0	23.0	1.50	3.00	Urease kinetic
	mg/dl	120	102	138	9.00	18.00	
	mmol/l	20.0	17.0	23.0	1.50	3.00	BUN
	mg/dl	56.1	47.7	64.5	4.20	8.40	

Weiner Lab BT 3000 Plus/CB 350i

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Albumin	g/l	30.1	25.6	34.6	2.25	4.50	Bromocresol Green
	g/dl	3.01	2.56	3.46	0.23	0.45	
ALT (GPT)	U/l	136	109	163	13.50	27.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	101	81	121	10.00	20.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	77	61	93	8.00	16.00	Tris buffer no P5P IFCC/SFBC 25°C
AST (GOT)	U/l	133	107	159	13.00	26.00	Tris buffer no P5P IFCC/SFBC 37°C
	U/l	90	72	108	9.00	18.00	Tris buffer no P5P IFCC/SFBC 30°C
	U/l	63	51	75	6.00	12.00	Tris buffer no P5P IFCC/SFBC 25°C
Cholesterol	mmol/l	7.41	6.45	8.37	0.48	0.96	Cholesterol Oxidase
	mg/dl	286	249	323	18.50	37.00	
CK Total	U/l	514	421	607	46.50	93.00	CK-NAC (IFCC) 37°C
	U/l	322	264	380	29.00	58.00	CK-NAC (IFCC) 30°C
	U/l	218	179	257	19.50	39.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	347	278	416	34.50	69.00	Alkaline picrate no deproteinization
	mg/dl	3.92	3.14	4.70	0.39	0.78	
Glucose	mmol/l	15.7	13.3	18.1	1.20	2.40	Glucose oxidase
	mg/dl	283	240	326	21.50	43.00	
Protein Total	g/l	48.8	39.1	58.5	4.85	9.70	Biuret reaction end point
	g/dl	4.88	3.91	5.85	0.49	0.97	
Triglycerides	mmol/l	2.93	2.46	3.40	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	259	218	300	20.50	41.00	

Weiner Lab BT 3000 Plus/CB 350i

Keul-o-trol H LEVEL 3 (HUM ASY CONTROL 3)

Ch.-B.: 506UE Art.-Nr.: KG1532 / KG2611

Inhalt 20 x 5ml / 5 x 5ml Verw. bis: 2014-12

Bereich

Parameter	Einheit	Zielwert	von	bis	1SD	2SD	Methoden
Urea	mmol/l	20.6	17.5	23.7	1.55	3.10	Urease kinetic
	mg/dl	124	105	143	9.50	19.00	
	mmol/l	20.6	17.5	23.7	1.55	3.10	BUN
	mg/dl	57.8	49.1	66.5	4.35	8.70	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.00	7.85	10.2	0.58	1.15	