

HUMAN Diagnostics

Product Catalog 2020



Human

Diagnostics Worldwide

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HUMAN Diagnostics



For almost 50 years, HUMAN has been offering high-quality products, solutions and services in the field of laboratory diagnostics.

Many years of international experience, a unique network of local partners in over 160 countries and regional offices around the globe ensure that HUMAN meets customer and market requirements.

HUMAN thus has one of the most effective sales, service and support networks in the world, especially in developing and emerging countries.

More than 400 products, from reagents to automated systems, cover almost all areas of modern routine laboratories. This also includes autoimmune and molecular diagnostics.

Our Germany based offices include in addition to the headquarters in Wiesbaden further sites with production as well as research and development departments:

The site in Magdeburg and our affiliated company LABiTec® based in Ahrensburg. All sites are certified with ISO 13485 and 9001, to meet highest German quality standards.

HUMAN is committed to the principles of sustainability as well as to improving global health care.

All this has made us a recognized and reliable partner.



Seit fast 50 Jahren bietet HUMAN qualitativ hochwertige Produkte, Lösungen und Dienstleistungen im Bereich der Labordiagnostik an.

Langjährige, internationale Erfahrung, ein einzigartiges Netzwerk lokaler Partner in über 160 Ländern sowie unsere Regionalbüros sorgen rund um den Globus dafür, Kunden- und Marktanforderungen zu erfüllen.

Damit verfügt HUMAN, speziell in den Entwicklungs- und Schwellenländern, über eines der effektivsten Vertriebs-, Service- und Dienstleistungsnetzwerke weltweit.

Mehr als 400 Produkte, von Reagenzien bis hin zu automatisierten Systemen, decken nahezu alle Bereiche des modernen Routine-Labors ab. Dazu zählen ebenfalls die Autoimmun- und Molekulardiagnostik.

Zu unseren deutschen Standorten gehören neben der Hauptverwaltung in Wiesbaden weitere Standorte mit Produktion sowie Forschungs- und Entwicklungsabteilungen: Der Standort Magdeburg und unsere Tochtergesellschaft LABiTec® mit Sitz in Ahrensburg. Alle Standorte sind nach ISO 13485 und 9001 zertifiziert, um den höchsten deutschen Qualitätsstandards zu entsprechen.

HUMAN hat sich neben der Verbesserung der weltweiten Gesundheitsversorgung ebenso den Prinzipien der Nachhaltigkeit verschrieben.

All das macht uns zu einem anerkannten und zuverlässigen Partner.



Depuis près de 50 ans, HUMAN propose des produits, des solutions et des services de haute qualité dans le domaine du diagnostic de laboratoire.

De nombreuses années d'expérience internationale, un réseau unique de partenaires locaux dans plus de 160 pays et des bureaux régionaux dans le monde entier nous permettent de répondre aux exigences de nos clients et du marché.

HUMAN dispose ainsi de l'un des réseaux de vente, de service et de support les plus efficaces du monde, en particulier dans les pays en développement et les pays émergents.

Plus de 400 produits, des réactifs aux systèmes automatisés, couvrent presque tous les domaines des laboratoires modernes de routine. La gamme comprend également les diagnostics moléculaires et des maladies auto-immunes.

Nos bureaux situés en Allemagne comprennent, à côté du siège social à Wiesbaden, d'autres sites de production ainsi que des départements de recherche et développement : le site à Magdebourg et notre filiale LABiTec® située à Ahrensburg. Tous les sites sont certifiés ISO 13485 et 9001 afin de répondre aux plus hautes normes de qualité allemandes.

HUMAN s'engage à respecter les principes de durabilité et à améliorer les soins de santé à l'échelle mondiale.

Tout cela a fait de nous un partenaire reconnu et fiable.



Desde hace más de 50 años, HUMAN ofrece productos de alta calidad, soluciones y servicios para el sector de los laboratorios de diagnóstico.

Décadas de experiencia internacional, una red única de socios en más de 160 países y oficinas regionales alrededor del mundo contribuyen a que HUMAN cumpla los requerimientos de sus clientes y del mercado.

HUMAN cuenta con una de las redes de distribución, servicios y soporte más efectivas del mundo, especialmente presente en países en vía de desarrollo y emergentes.

Más de 400 productos, desde reactivos hasta sistemas automatizados, cubren casi todas las áreas de trabajo de los laboratorios clínicos modernos, incluyendo soluciones para el diagnóstico molecular y de enfermedades autoinmunes.

Nuestras oficinas en Alemania incluyen junto a la sede central de Wiesbaden, una planta de producción así como también departamentos de investigación y desarrollo: las oficinas de Magdeburgo y nuestra filial LABiTec® en Ahrensburg. Todas nuestras sucursales están certificadas con las normas de calidad ISO 13485 y 9001, cumpliendo así con los más altos estándares de calidad de Alemania.

Asimismo, HUMAN está comprometida con los principios de sostenibilidad y con el mejoramiento de la atención sanitaria mundial.

Todas estas razones nos han convertido en un socio reconocido y fiable.

HUMAN Group

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Global player. Local solutions. Individual support.

With its worldwide network of subsidiaries and distributors, HUMAN guarantees being close to the users, providing service and support.

Distributing areas are dark grey.



Germany based offices

1 Headquarters

**HUMAN Gesellschaft für
Biochemica und Diagnostica mbH**

Max-Planck-Ring 21
65205 Wiesbaden
Germany

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Email: info@human.de
www.human.de

2 Production Site

**HUMAN Gesellschaft für
Biochemica und Diagnostica mbH**

Stegelitzer Straße 3
39126 Magdeburg
Germany

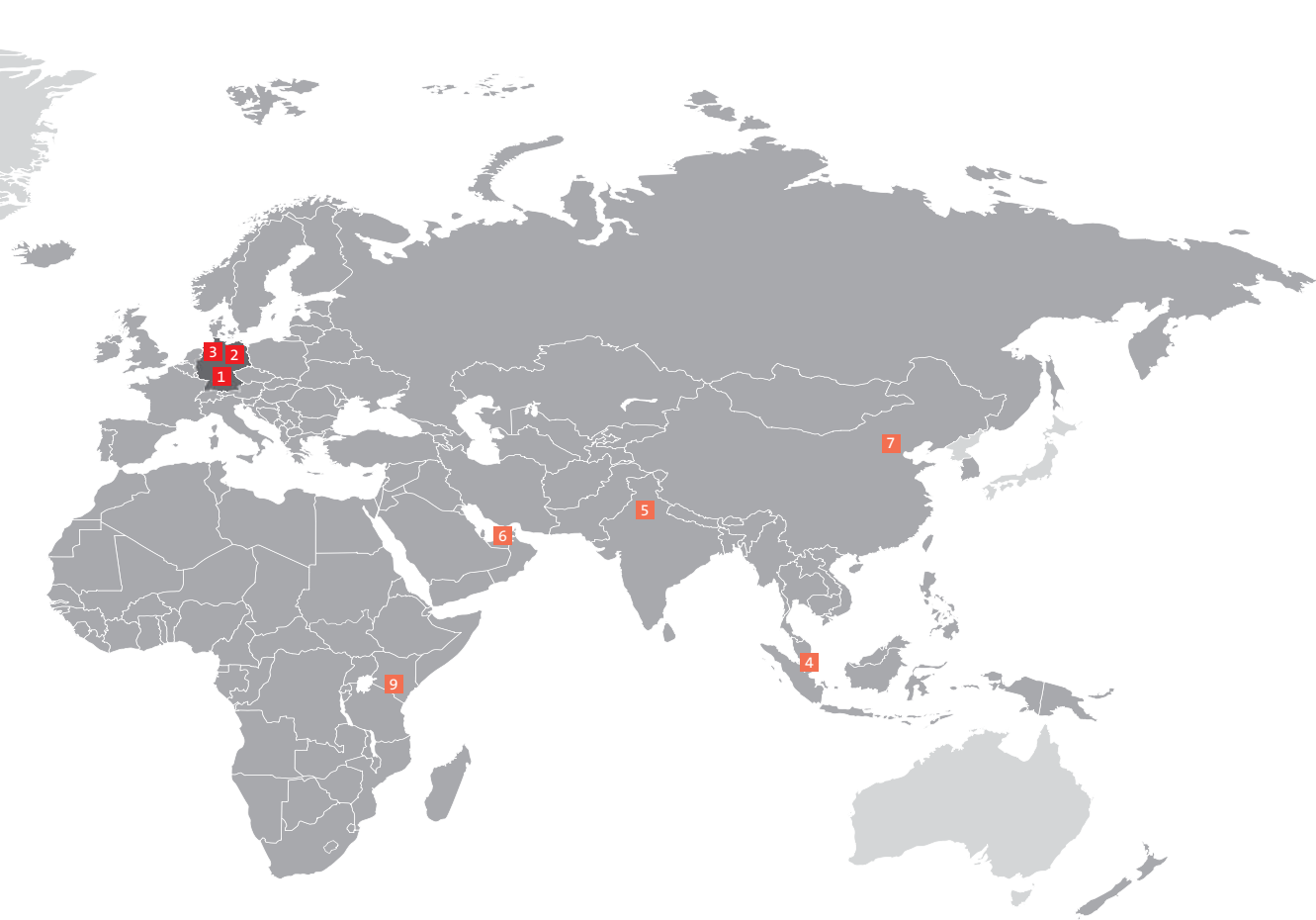
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3 LABiTec®

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Regional offices and training centre

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7 China

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9 HUMAN Training Centre Africa

Chem-Labs Ltd.

Human House Ngara West Rd
00600 Nairobi
Kenya

Email: human@human.de

Committed to Quality



Quality is the essence

For HUMAN, quality is not simply a phrase, it is the essence of our philosophy. For almost 50 years, HUMAN has always acted in accordance with internationally recognized quality standards. Nowadays HUMAN's facilities, processes and products are in full compliance with the highest quality standards as, e.g., proven by a certified quality management system or a CE-conformity assessment procedure in compliance with the valid European IVD Directive. A certification of our quality management system in

accordance with the international standards EN ISO 9001:2015 and EN ISO 13485:2016, guarantees that all our products are designed, manufactured, controlled and delivered to match with the requirements and high expectations of our customers worldwide. HUMAN's quality management system has proven to be equivalent with GMP requirements as demonstrated by successfully passed inspections from foreign authorities.

Certificate

mdc medical device certification GmbH
certifies that

Human

Gesellschaft für Biochemica und Diagnostica mbH
Max-Planck-Ring 21
65205 Wiesbaden
Germany

with the location

Stegelitzer Straße 3
39126 Magdeburg

for the scope

development, manufacturing and distribution of
in vitro diagnostic products and analyzers
has introduced and applies a

Quality Management System

The mdc audit has proven that this quality management system
meets all requirements of the following standard

EN ISO 13485

Medical devices – Quality management systems –
Requirements for regulatory purposes
EN ISO 13485:2016 + AC:2016 - ISO 13485:2016

Valid from	2019-03-12
Valid until	2022-03-11
Registration no.	D1030000073
Report no.	P18-01225-128829
Stuttgart	2019-03-01

Head of Certification Body



mdc medical device certification GmbH
Kriegerstraße 6
D-70191 Stuttgart, Germany
Phone: +49-(0)711-253597-0
Fax: +49-(0)711-253597-10
Internet: <http://www.mdc-ce.de>



CERTIFICATE
ISO 14001:2015

for
Human
Gesellschaft für Biochemica und Diagnostica mbH
at the sites
Max-Planck-Ring 21, 65205 Wiesbaden und
Stegelitzer Straße 3, 39126 Magdeburg

The DAU-accredited environmental verifier hereby certifies that the named organization
has implemented an Environmental Management System.

scope: development, manufacturing and distribution of in vitro diagnostic products and analyzers

With an audit it has been assessed that the requirements of
ISO 14001:2015 are fulfilled.

Nürnberg, 30. August 2018

The follow-up certificate No. UGA 835-2018 is valid until 26. August 2021.

Carsten Spödel
Carsten Spödel
Environmental Verifier

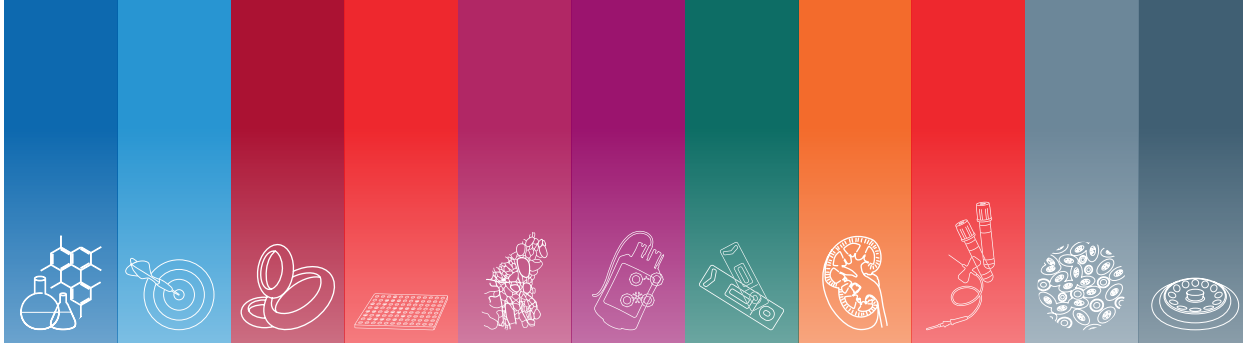
Dr. Phys. Reinhard Mirz
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Intechnica Cert GmbH Umweltsachverständigenorganisation, Ostendstraße 181, 90482 Nürnberg

REGISTERED OFFICE: UGA 835-2018/18/08/0000079/0000079/0000079/0000079/0000079/0000079/0000079/0000079/0000079/0000079

Environmental protection is our concern

HUMAN sincerely commits to the use of renewable energies and to environmental protection. Hence, an environmental management system according to international standard DIN EN ISO 14001:2015 and European standard EMAS (certificate on the home-page) has been implemented in 2015.



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Clinical Chemistry

Reagents, Calibrators and Controls Photometers, Analyzers and Systems

HUMAN offers a broad range of routine and special tests in a variety of package concepts to serve the needs of modern state-of-the-art laboratories. In the same way, all HUMAN analyzers and systems emphasize functionality and modern workflow requirements to meet customer and market demand.





Multipurpose Reagents

HUMAN's multipurpose clinical chemistry assays for manual and automated testing use a variety of technologies for detection and quantification. The assay range comprises enzymes, substrates/metabolites, proteins, electrolytes and trace elements with high precision and long stability.

Calibrators and controls with defined values and ranges are available. **Complete kits** contain the reagents as well as the necessary calibrators/standards, whereas **reagent kits** contain just the reagents.

Autocal can be used for calibration of the enzymatic assays on clinical chemistry analyzers ranging from the semi-automatic Humalyzer to the automated HumaStar series.



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Bilirubin D+T Liquicolor

Humalyzer Photometers

Compact semi-automatic clinical chemistry photometers are perfectly suited for small laboratories and as backup solutions. Each photometer offers different features for different requirements.



Page 27



Humalyzer 4000

HumaLyte ISE-Systems

Direct ISE technology offers easy handling, economical testing of a variety of ISE parameters and requires only minimal maintenance. HUMAN's HumaLyte systems are suitable for many kinds of laboratories.



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HumaLyte Plus³



HumaStar 100

HumaStar Analyzers

HUMAN's automated analyzer range features instruments suitable for entry-level to medium throughput automation.

All automated analyzers are optimized for use with HUMAN reagents. Reagent refrigeration and continuous loading on the advanced analyzers ensure efficient operation.

Applications for HUMAN multipurpose and most immunoturbidimetric reagents are preprogrammed on the instruments.

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HumaStar 300SR

HumaStar Systems

Our system analyzers offer completely automated reagent management.

With the HumaStar 300SR, we provide a benchtop-sized automated system, designed for small to medium throughput laboratories which prominently feature cost-efficient solutions.

With the HumaStar 600, HUMAN offers another stand-alone system, equipped to serve the needs of medium to high throughput laboratories. Additionally it can be upgraded with an optional ISE module.

Both are equipped with reagent cooling, barcode readers and washable cuvettes and are offered with validated applications which enable to run high quality system reagents with long shelf lives and onboard stabilities, ensuring the highest cost efficiency and result reliability.

With these systems, HUMAN is proud to offer a unique range of solutions for laboratories of all sizes with matched versatility and economy.

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HumaStar System Reagents




Multipurpose Reagents

REF	Format	Unit/Size	Storage	Sample
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ACID PHOSPHATASE

Humazym colorimetric test

12660	M-test, Reagent kit	16 x 2 ml	2...8 °C	
10660	Reagent kit	6 x 15 ml		



ALBUMIN liquicolor

Colorimetric test, monoreagent, BCG method

10560	Complete kit	1000 ml	2...25 °C	  
156004		4 x 100 ml		



ALKALINE PHOSPHATASE liquicolor

AMP buffer, IFCC

12117	Reagent kit	10 x 10 ml	2...8 °C	 
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ALKALINE PHOSPHATASE opt. liquicolor

DEA buffer, DGKC




12217	Reagent kit	16 x 5 ml	2...8 °C	 
12017		10 x 10 ml		
12027		8 x 50 ml		
12037		4 x 250 ml		



anti-STREPTOLYSIN-O (ASO)


alpha-AMYLASE liquicolor

Colorimetric test, monoreagent

12218	Reagent kit	16 x 5 ml	2...8 °C	  
12018		12 x 10 ml		
12028		6 x 50 ml		


anti-STREPTOLYSIN-O (ASO)

Latex enhanced immunoturbidimetric test

11251P	Reagent kit	2 x 50 ml	2...8 °C	
11351	Standard +	2 x 1 ml		

APOLIPOPROTEIN A1 (APO A1)

Immunoturbidimetric test

11101	Reagent kit	2 x 30 ml	2...8 °C	
11104	Standard +	2 x 1 ml		



Serum



Plasma
EDTA



Plasma
HEP



Cerebrospinal
fluid



Urine





not included
but required



REF	Format	Unit/Size	Storage	Sample
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APOLIPOPROTEIN B (APO B)

Immunoturbidimetric test

11102	Reagent kit	2 x 30 ml	2...8 °C	
11104	Standard 	2 x 1 ml		

auto-BILIRUBIN-D liquicolor

Colorimetric test, DPD method, for automated analyzers



10741	Reagent kit	375 ml	2...8 °C	 
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BILIRUBIN DIRECT/TOTAL liquicolor




auto-BILIRUBIN-T liquicolor

Colorimetric test, DPD method, for automated analyzers

10742	Reagent kit	375 ml	2...8 °C	 
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BILIRUBIN liquicolor

Colorimetric test, dichloroaniline (DCA) method

10012	Reagent kit	200 ml	2...25 °C	  
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BILIRUBIN DIRECT/TOTAL liquicolor

Colorimetric test, Jendrassik/Gróf method

10740	Reagent kit	2 x 100 ml	15...25 °C	 
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CALCIUM liquicolor

Colorimetric test, monoreagent, o-cresolphthalein-complexone (OCPC) method

10011	Complete kit	200 ml	2...25 °C	 
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CHLORIDE liquicolor

Colorimetric test, monoreagent, TPTZ method

10115	Complete kit	200 ml	2...25 °C	  
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Multipurpose Reagents

REF	Format	Unit/Size	Storage	Sample
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CHOLESTEROL liquicolor

Enzymatic colorimetric test, monoreagent with LCF, CHOD-PAP method

10017	Complete kit	4 x 30 ml	2...8 °C	  
10019		3 x 250 ml		
10028		4 x 100 ml		





NEW CHOLINESTERASE liquicolor

Enzymatic colorimetric test, Butyrylthiocholine method

12007	Reagent kit	1 x 120 ml	2...8 °C	
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CK-MB liquiUV

Immunoinhibition method

12118	Reagent kit	10 x 10 ml	2...8 °C	 
13612	Calibrator 	2 x 1 ml		
13611	Control 	2 x 2 x 2 ml		



CK-MB (NAC-activated)

Humazym M-test, immunoinhibition method

12008	Reagent kit	20 x 3 ml	2...8 °C	 
13612	Calibrator 	2 x 1 ml		
13611	Control 	2 x 2 x 2 ml		



CK NAC activated

Humazym M-test, optimized method (GSCC)

12005	Reagent kit	20 x 3 ml	2...8 °C	 
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CK NAC activated liquiUV

IFCC method

12015	Reagent kit	10 x 10 ml	2...8 °C	 
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COMPLEMENT C3

Immunoturbidimetric test

11110	Reagent kit	2 x 20 ml	2...8 °C	
11117	Standard 	2 x 1 ml		



Serum



Plasma
EDTA



Plasma
HEP



Urine





not included
but required



REF	Format	Unit/Size	Storage	Sample
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COMPLEMENT C4

Immunoturbidimetric test

11113	Reagent kit	2 x 20 ml	2...8 °C	
11117	Standard 	2 x 1 ml		




auto-CREATININE liquicolor

Colorimetric kinetic method (Jaffé), for automated analyzers

10052	Complete kit	250 ml	15...25 °C	  
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CREATININE liquicolor

Colorimetric test, kinetic and endpoint method (Jaffé)

10051	Complete kit	200 ml	15...25 °C	  
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CREATININE (enzym) liquicolor

Enzymatic colorimetric test

10053	Complete kit	80 ml	2...8 °C	
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CRP

Immunoturbidimetric test for C-reactive protein

11241	Reagent kit	1 x 10 ml	2...8 °C	  
11341	Standard 	2 x 1 ml		
11141	Buffer 	4 x 100 ml		





CYSTATIN-C liquidirect

Latex enhanced immunoturbidimetric test

11150	Reagent kit	1 x 40 ml	2...8 °C	
11155	Calibrator set 	5 x 1 ml		
11153	Control	3 x 1 ml		

FERRITIN

Latex enhanced immunoturbidimetric test

11610	Reagent kit	1 x 37.5 ml	2...8 °C	  
11614	Calibrator set 	4 x 0.5 ml		






Multipurpose Reagents

REF	Format	Unit/Size	Storage	Sample
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gamma-GT liquicolor

Colorimetric test, Persijn/van der Slik method

12213	Reagent kit	16 x 5 ml	2...8 °C	  
12013		10 x 10 ml		
12023		8 x 50 ml		
12033		4 x 250 ml		




GLUCOSE liquicolor

Enzymatic colorimetric test, GOD-PAP method

10121	Complete kit	1000 ml	2...8 °C	  
10260		4 x 100 ml		



GLUCOSE liquiUV^{mono}

Hexokinase method, monoreagent

10786	Complete kit	1 x 1000 ml	2...8 °C	  
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GLYCOHEMOGLOBIN HbA_{1c}

Fast ion exchange resin separation method

10657	Complete kit	20 tests	2...8 °C	
10658		100 tests		
10259	Control 	2 x 1 ml		




GOT (ASAT) IFCC mod. liquiUV

Modified IFCC method (334 nm, 340 nm, 365 nm)

12211	Reagent kit	16 x 5 ml	2...8 °C	  
12011		10 x 10 ml		
12021		8 x 50 ml		
12031		4 x 250 ml		

GPT (ALAT) IFCC mod. liquiUV

Modified IFCC method (334 nm, 340 nm, 365 nm)

12212	Reagent kit	16 x 5 ml	2...8 °C	  
12012		10 x 10 ml		
12022		8 x 50 ml		
12032		4 x 250 ml		



Whole Blood



Capillary Blood



Serum



Plasma EDTA



Plasma HEP



not included but required

REF	Format	Unit/Size	Storage	Sample
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HbA1c liquidirect

Immunoassay, direct method referenced to IFCC method

10770	Reagent kit	40 ml	2...8 °C	WB
10776	Calibrator set +	4 x 0.5 ml		
10775	Control blood + normal/abnormal	2 x 2 x 0.5 ml		



HbA1c liquidirect

HDL CHOLESTEROL liquicolor

Enzymatic colorimetric test, direct homogeneous method

10084	Complete kit	80 ml	2...8 °C	SERUM EDTA HEP
10284		200 ml		

HDL CHOLESTEROL

Precipitation method with phosphotungstic acid

10018	Precipitant/ Standard	4 x 80 ml, 1 x 3 ml	2...25 °C	SERUM EDTA HEP
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HEMOGLOBIN liquicolor

Photometric colorimetric test, cyanmethemoglobin method

10751	Reagent kit	for 10 x 500 ml	15...25 °C	WB CB
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HOMOCYSTEINE liquiUV

Enzymatic UV test

11140	Complete kit	1 x 34 ml	2...8 °C	SERUM EDTA HEP
11143	Control	3 x 1.5 ml		

IMMUNOGLOBULINS direct IgA

Immunoturbidimetric test without sample dilution

11501	Reagent kit	2 x 10 ml	2...8 °C	SERUM
11504	Calibrator set +	5 x 2 ml		
11505	Direct buffer	4 x 40 ml		

IMMUNOGLOBULINS direct IgG

Immunoturbidimetric test without sample dilution

11502	Reagent kit	2 x 10 ml	2...8 °C	SERUM
11504	Calibrator set +	5 x 2 ml		
11505	Direct buffer	4 x 40 ml		




Multipurpose Reagents

REF	Format	Unit/Size	Storage	Sample
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IMMUNOGLOBULINS direct IgM

Immunoturbidimetric test without sample dilution

11503	Reagent kit	2 x 10 ml	2...8 °C	
11504	Calibrator set ⁺	5 x 2 ml		
11505	Direct buffer	4 x 40 ml		



IRON liquicolor

Photometric colorimetric test, monoreagent with LCF, chromazurol B method

10229	Complete kit	2 x 30 ml	2...25 °C	 
10230		2 x 100 ml		




IRON TPTZ liquicolor

Photometric colorimetric test, TPTZ method

12290	Complete kit	2 x 25 ml	2...8 °C	 
12291		2 x 100 ml		

LDH SCE mod. liquiUV

LDH SCE mod. liquiUV modified SCE method




12214	Reagent kit	16 x 5 ml	2...8 °C	  
12014		10 x 10 ml		
12024		8 x 50 ml		



LDL CHOLESTEROL liquicolor



LDL CHOLESTEROL liquicolor

Enzymatic colorimetric test, direct homogeneous method

10094	Complete kit	80 ml	2...8 °C	  
10294		200 ml		



LIPASE liquicolor

Enzymatic colorimetric test

12006	Reagent kit	4 x 10 ml	2...8 °C	 
12026		6 x 20 ml		
13160	Calibrator ⁺ (Autocal)	4 x 5 ml		

LIPOPROTEIN (a), Lp(a)

Latex enhanced immunoturbidimetric test

11105	Reagent kit	1 x 3 ml	2...8 °C	 
11107	Standard ⁺	2 x 0.5 ml		



Serum



Plasma
EDTA



Plasma
HEP



Urine




not included
but required



REF	Format	Unit/Size	Storage	Sample
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MAGNESIUM liquicolor

Photometric colorimetric test, monoreagent with LCF, xylidyl blue method

10010	Complete kit	2 x 100 ml	2...25 °C	
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MICROALBUMIN

Immunoturbidimetric test



11120	Reagent kit	1 x 5 ml	2...8 °C	
11124	Standard 	2 x 1 ml		



MICROALBUMIN


PANCREAS-AMYLASE liquicolor

Enzymatic colorimetric test

12009	Reagent kit	4 x 10 ml	2...8 °C	
12029		6 x 20 ml		
13160	Calibrator  (Autocal)	4 x 5 ml		


PHOSPHORUS liquirapid

Photometric UV-test, monoreagent, ammonium molybdate method

10027	Complete kit	2 x 100 ml	2...25 °C	
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POTASSIUM liquirapid

Photometric turbidimetric test, tetraphenylboron method

10118	Complete kit	100 ml	2...25 °C	
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POTASSIUM liquiUV

Enzymatic UV test

10120	Complete kit	40 ml	2...8 °C	
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RHEUMATOID FACTORS (RF)

Immunoturbidimetric test

11261P	Reagent kit	2 x 50 ml	2...8 °C	
11361	Standard 	2 x 3 ml		



Multipurpose Reagents

REF	Format	Unit/Size	Storage	Sample
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RHEUMATOID FACTORS (RF)

Latex enhanced immunoturbidimetric test

11261PA	Reagent kit	2 x 50 ml	2...8 °C	SERUM
11361	Standard +	2 x 3 ml		

SODIUM liquicolor

Enzymatic colorimetric test

10113	Complete kit	40 ml	2...8 °C	SERUM HEP
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SODIUM RAPID

Photometric colorimetric test, Mg-Uranylacetate method

573351	Complete kit	60 ml	15...25 °C	SERUM
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TIBC

Total Iron Binding Capacity test, iron saturation and aluminum oxide absorption method, for use with **Iron liquicolor (10229/10230)** and **Iron TPTZ (12290/12291/12290300/12290600)**

10670	Saturation solution, Absorbant	100 tests	15...25 °C	SERUM HEP
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SODIUM liquicolor

TOTAL PROTEIN liquicolor

Photometric colorimetric test, monoreagent, Biuret method

157004	Complete kit	4 x 100 ml	2...25 °C	SERUM EDTA HEP
10570		1000 ml		

TRANSFERRIN

Immunoturbidimetric test

11115	Reagent kit	2 x 30 ml	2...8 °C	SERUM
11117	Standard +	2 x 1 ml		

TRIGLYCERIDES liquicolor^{mono}

Photometric colorimetric test, monoreagent with LCF, GPO-PAP method

10720P	Complete kit	9 x 15 ml	2...8 °C	SERUM EDTA HEP
10724		4 x 100 ml		
10725		3 x 250 ml		



Serum



Plasma
EDTA



Plasma
HEP



Cerebrospinal
fluid



Urine



not included
but required



REF	Format	Unit/Size	Storage	Sample
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NEW

URINARY TOTAL PROTEIN liquicolor
Colorimetric test, Pyrogallol red method

10590	Complete kit	3 x 30 ml	2...8 °C	
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UREA liquicolor
Enzymatic colorimetric test, modified Berthelot method

10505	Complete kit	200 ml	2...8 °C	
10506	Reagent 1, Enzyme, Standard	1000 ml		
10507	Reagent 2	1000 ml		

UREA liquiUV
Kinetic GLDH method

10521	Complete kit	8 x 50 ml	2...8 °C	
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URIC ACID liquicolor^{plus}
Enzymatic colorimetric test with LCF, PAP method with ascorbate oxidase

10694	Complete kit	3 x 100 ml	2...8 °C	
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URIC ACID liquicolor
Enzymatic colorimetric test, monoreagent with LCF, PAP method

10690	Complete kit	4 x 30 ml	2...8 °C	
10691		4 x 100 ml		



Calibrator and Control Sera

REF	Unit/Size	Storage	Stability
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AUTOCAL

Lyophilized multi-parameter calibrator based on human serum for clinical chemistry

13160	4 x 5 ml	2...8 °C	Up to 7 days at 2...8 °C (reconst.)
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HumaTrol N

Lyophilized bovine serum, target values mainly in the normal range, assayed

13511	6 x 5 ml	2...8 °C	Up to 7 days at 2...8 °C (reconst.)
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HumaTrol P

Lyophilized bovine serum, target values mainly in the abnormal range, assayed

13512	6 x 5 ml	2...8 °C	Up to 7 days at 2...8 °C (reconst.)
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HumaTrol N

SERODOS®

Lyophilized human serum, target values mainly in the normal range, assayed

13951	6 x 5 ml	2...8 °C	Up to 7 days at 2...8 °C (reconst.)
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SERODOS®plus

Lyophilized human serum, target values mainly in the abnormal range, assayed

13151	6 x 5 ml	2...8 °C	Up to 7 days at 2...8 °C (reconst.)
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TURBIDOS

Two level, liquid, ready-to-use control serum for turbidimetric tests, assayed

13010	4 x 3 ml	2...8 °C	30 days at 2...8 °C after opening
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Assayed Calibrator and Control Sera

HUMAN Clinical Chemistry Parameters	Autocal	HumaTrol N HumaTrol P	Serodos® Serodos®plus	Turbidos
ACID PHOSPHATASE	x	x	x	
ALBUMIN liquicolor	x	x	x	x
ALKALINE PHOSPHATASE liquicolor	x	x	x	
ALKALINE PHOSPHATASE opt. liquicolor	x	x	x	
alpha-AMYLASE liquicolor	x	x	x	
anti-STREPTOLYSIN-O (ASO)				x
APOLIPOPROTEIN A1 (APO A1)			x	
APOLIPOPROTEIN B (APO B)			x	
auto-BILIRUBIN-D liquicolor	x	x	x	
auto-BILIRUBIN-T liquicolor	x	x	x	
BILIRUBIN liquicolor	x	x	x	
BILIRUBIN DIRECT/TOTAL liquicolor		x	x	
CALCIUM liquicolor	x	x	x	
CHLORIDE liquicolor		x	x	
CHOLESTEROL liquicolor	x	x	x	
CHOLINESTERASE liquicolor	x		x	
CK NAC activated		x	x	
CK NAC activated liquiUV	x	x	x	
COMPLEMENT C3				x
COMPLEMENT C4				x
auto-CREATININE liquicolor	x	x	x	
CREATININE liquicolor		x	x	
CREATININE (enzym) liquicolor	x	x	x	
CRP				x
FERRITIN				x
gamma-GT liquicolor	x	x	x	
GLUCOSE liquicolor	x	x	x	
GLUCOSE liquiUV ^{mono}	x	x	x	
GOT (ASAT) IFCC mod. liquiUV	x	x	x	
GPT (ALAT) IFCC mod. liquiUV	x	x	x	
HDL CHOLESTEROL liquicolor	x		x	
HDL CHOLESTEROL		x	x	
IRON liquicolor	x	x	x	
IRON TPTZ liquicolor	x	x	x	



Assayed Calibrator and Control Sera

HUMAN Clinical Chemistry Parameters	Autocal	HumaTrol N HumaTrol P	Serodos Serodos ^{plus}	Turbidos
IMMUNOGLOBULINS direct IgA			x	x
IMMUNOGLOBULINS direct IgG			x	x
IMMUNOGLOBULINS direct IgM			x	x
LDH SCE mod. liquiUV	x	x	x	
LDL CHOLESTEROL liquicolor	x		x	
LIPASE liquicolor	x		x	
LIPOPROTEIN (a), Lp(a)			x	
MAGNESIUM liquicolor	x	x	x	
PANCREAS-AMYLASE liquicolor	x	x	x	
PHOSPHORUS liquirapid	x	x	x	
POTASSIUM liquirapid		x	x	
POTASSIUM liquiUV		x	x	
RHEUMATOID FACTOR (RF)				x
SODIUM liquicolor		x	x	
SODIUM RAPID		x	x	
TIBC		x	x	
TOTAL PROTEIN liquicolor	x	x	x	x
TRANSFERRIN				x
TRIGLYCERIDES liquicolor ^{rmono}	x	x	x	
UREA liquicolor	x	x	x	
UREA liquiUV	x	x	x	
URIC ACID liquicolor ^{plus}	x	x	x	
URIC ACID liquicolor	x	x	x	



Humalyzer Photometers

Common features of all Humalyzers:

- Multiple reading modes incl. multipoint calibration
- Flow cell or direct cuvette reading mode
- HUMAN settings preinstalled
- Programming of additional methods
- Internal thermal printer

REF

18250

Humalyzer 4000

Top-class semi-automatic photometer

- Wavelengths: 340, 405, 505, 546, 578, 620, 700, 750 nm
- Total of 144 programmable settings
- Software: English, Spanish, French
- 8 GB memory for results, QC, calibration (SD-Card, expandable)
- Color touchscreen 640 x 480 pixels
- Reference channel optics
- Remote access for support
- Low energy consumption
- Extremely quiet
- LIS (ethernet, unidirectional)
- Integrated incubator with 10 round and 2 square positions

Humalyzer
4000

Accessories

REF	Description
18250/74	Battery pack with USB fan (12/24 VDC, 73Wh for 4h operation of Humalyzer 4000)
18250/73	Solar panel (up to 36 W, for charging of battery pack)

Consumables

REF	Description
18052*	Disposable macro cuvettes (1,000 pcs)
18222	Flow cell cleaner 100 ml
18144/5	Thermal printer paper (5 pcs)



Humalyzer Photometers

REF

18200

Humalyzer Primus

Semi-automatic photometer

- Wavelengths: 340, 405, 500, 546, 620 nm and free positions
- Total of 60 programmable settings
- Software: English
optional: Spanish, French, Russian
- Memory for 2,200 results, QC, calibration
- LCD display 240 x 64 pixels
- Comprehensive QC statistics module
- Incubation at 25°C, 30°C or 37°C
- HumaCube incubator available (optional)

Humalyzer
Primus

Accessories

REF	Description
17050	HumaCube 230 VAC (page 117)
17070	HumaCube 110 VAC (page 117)
18200/59	Filter 410 nm
18200/55	Filter 450 nm
18200/56	Filter 492 nm
18200/57	Filter 510 nm
18200/60	Filter 536 nm
18200/61	Filter 550 nm
18200/62	Filter 595 nm
18200/58	Filter 630 nm
18200/74	Power cable USA standard

Consumables

REF	Description
18052*	Disposable macro cuvettes (1,000 pcs)
18222	Flow cell cleaner 100 ml
18144/5	Thermal printer paper (5 pcs)

* Distributed by HUMAN as non-HUMAN label



HumaLyzer Photometers at a glance



	HumaLyzer PRIMUS	HumaLyzer 4000
Flow cell	Yes	Yes
Pump	Peristaltic	Peristaltic
Single cuvette use	(Yes) Please refer to user manual	Yes
Reference channel	No	Yes
Wavelengths	5 installed, 2 optional	8 installed
Linearity	2.5 OD	2.5 OD
Incubation	Optional: HumaCube (external incubator)	10 round and 2 square positions
Reaction temperature	25, 30, 37 °C	25, 30, 37°C
Display	240 x 64 pixels	640 x 480 pixels
User interface	20 foil keys	Touchscreen
Languages	English, optional Russian, French, Spanish	English, Spanish, French
No. of methods	60	144
Memory results	2,200 results	8 GB (expandable)
Quality control program	QC statistics	QC statistics, Levey-Jennings
Remote access	No	Yes
Searchable results database	No	Yes
Reaction curve	No	Displayed and saved
Backup	No	USB, LAN (automatic)
Update	Service Engineer	User (USB)
Battery pack	No	Optional (REF 18250/74)



HumaStar Analyzers

HUMAN's automated analyzer range features entry-level to medium throughput automation. All automated analyzers are optimized for use with HUMAN reagents.



REF 16890

HumaStar 100

Random access benchtop analyzer for low throughput

Constant throughput: 100 tests per hour



REF 16895

HumaStar 200

Random access benchtop analyzer for medium throughput

Maximum throughput: 200 tests per hour
Typical throughput: 127 tests per hour



HumaStar 100|200



Movie



German Design Award
SPECIAL MENTION 2015



product design award

2014

Organize your lab workflow with perfect quality and efficiency

- Random access and STAT
- 80 reusable Bionex® cuvettes
- Multi-step cuvette wash station
- 60 sample positions for primary tubes 12 x 75 mm – 12.5 x 100 mm and sample cups
- Optional up to 16 x 100 mm
- Reagent cooling independent from main power switch
- 30 reagent positions for 20 ml and 50 ml bottles
- Internal sample barcode reader
- Capacitive liquid level detector
- Needle shock detector
- Liquid containers with level monitoring
- Windows® 7/8*/10*, USB compatible
*software update end of 2019
- LIS via ethernet, ASTM protocol, bidirectional
- Software optimized for touchscreen monitor
- UPS included

**Accessories**

REF	Description
16890/10	Sample tray 60 positions of 12 x 75 mm – 12.5 x 100 mm or 1 ml (10 mm) cups with adapter, included in standard delivery
16890/11	Sample tray 20 positions of 12 – 16 x 100 mm + 20 positions of 2 ml cups
16890/26	Sample tray 60 positions of 12 – 12.65 x 75 mm or 1 ml (10 mm) cups with adapter. For barcode reading of 75 mm tubes and with slightly larger diameter
16890/12	Sample cups 1 ml adapter for 12 mm (for sample tray 16890/10) (10 pcs)
16890/13	Reagent bottles tray 30 positions, included in standard delivery
16890/14	20 ml bottle adapter (15 pcs)
16890/15	Reagent adapter for cup or tube (1 pc)
16890/41	Closing lid for reagent positions (15 pcs)
18992P	Personal computer with Windows®
17901M	TFT screen
18991MT	Touchscreen LCD monitor
16890/19	Desktop barcode reader
18993L	Laser printer

Consumables

REF	Description
16890/30	Sample tubes 12 x 85 mm, 5 ml (1,000 pcs)
16890/31	Sample cups 1 ml (for sample tray 16890/10 with 16890/12 , 1,000 pcs)
17470/59	Sample cups 2 ml (for sample tray 16890/11 , 500 pcs)
16890/33	Reaction cuvettes (200 pcs, up to 75,000 tests)
16890/34	Reagent bottle 20 ml (30 pcs)
16890/35	Reagent bottle 50 ml (30 pcs)
16890/36	Cap for reagent bottles (30 pcs)
18971	Wash additive 4 x 25 ml
18974	Special wash solution 12 x 30 ml
18973	Cuvette clean 4 x 100 ml (turbidimetry)



HumaStar Analyzers at a glance



	HumaStar 100	HumaStar 200
Throughput, max. tests/hour	100	200
Throughput, typical mix	100	127
Random access/batch	Random access	Random access
Pipetting system	1 needle, int. + ext. wash	1 needle, int. + ext. wash
Photometer	Direct, cuvette	Direct, cuvette
Wash station	Yes	Yes
Water consumption	< 1 l/h	< 2 l/h
Reaction cuvettes	Reusable, Bionex®	Reusable, Bionex®
Sample positions	60	60
Primary tubes	Yes	Yes
Barcode reader	Sample	Sample
Reagent tray positions	30	30
Reagent cooling	Yes	Yes
Needle shock detector	Yes	Yes
LIS	Ethernet, bidirectional, ASTM	Ethernet, bidirectional, ASTM
Languages	English, French, Italian, Spanish	English, French, Italian, Spanish
Computer, Windows® compatibility	External (USB), Windows® 7/8*/10* *Software update end of 2019	External (USB), Windows® 7/8*/10* *Software update end of 2019



HumaStar Systems

The HumaStar system concept comprises analyzers and corresponding reagents. Dedicated reagents guarantee outstanding performance combined with excellent onboard and calibration stability. The success of our products is the payoff for the time and care we invest in development and validation.



**Eco-friendly
ProClean 2.0
Technology**

- > Minimal carry-over – dual solution wash station
- > Low water consumption (< 3 l/h)
- > Separation and reduction of biohazard waste

REF 16930

HumaStar 300SR

Medium throughput random access system including UPS

- Merges the hardware and software of HumaStar 100/200
- Up to 300 chemistry tests per hour
- System reagents for HumaStar 300SR|600
- 40 cooled positions for reagents and solutions
- Continuous programming and sample loading
- 60 positions for samples and low volume solutions
- Primary tubes 12 x 75 mm – 12.5 x 100 mm and cups optional up to 16 x 100 mm
- Multi-step cuvette wash station
- Barcode reader for samples and reagents
- Software optimized for touchscreen monitor
- LIS via ethernet, ASTM protocol, bidirectional



HumaStar 300SR

Consumables

REF	Description
16890/30	Sample tubes 12 x 85 mm, 5 ml (1,000 pcs)
16890/31	Sample cups 1 ml (for sample tray 16890/10 with 16890/12 , 1,000 pcs)
17470/59	Sample cups 2 ml (for sample tray 16890/11 , 500 pcs)
16890/33	Reaction cuvettes (200 pcs, up to 75,000 tests)
16770/25	Barcoded reagent containers 25 ml (10 pcs, 1,500 tests)
16770/70	Barcoded reagent containers 70 ml (10 pcs, 3,500 tests)
18971	Wash additive 4 x 25 ml
18974	Special wash solution 12 x 30 ml
18974/2	Special wash solution-2 6 x 50 ml
16663/20	Cuvette clean 6 x 55 ml
16663/10	Diluent 4 x 20 ml
16663/11	Diluent-2 4 x 20 ml
16661/01	Chimney (16 pcs)

Accessories

REF	Description
16890/10	Sample tray 60 positions of 12 x 75 mm–12.5 x 100 mm or 1 ml (10 mm) cups with adapter, included in standard delivery
16890/11	Sample tray 20 positions of 12 x 75–16 x 100 mm + 20 positions of 2 ml cups
16890/26	Sample tray 60 positions of 12–12.65 x 75 mm or 1 ml (10 mm) cups with adapter). For barcode reading of 75 mm tubes and with slightly larger diameter
16890/12	Sample cups 1 ml adapter for 12 mm (for sample tray 16890/10) (10 pcs)
18992P	Personal computer with Windows®
17901M	TFT screen
18991MT	LCD touchscreen monitor
18993L	Laser printer



HumaStar Systems

REF

16660

HumaStar 600

High throughput random access system including UPS

- Up to 600 chemistry tests per hour (w/o ISE)
- Up to 780 tests per hour with optional ISE module
- 48 cooled reagents on board
- Reagent cooling
- Continuous programming and sample loading
- Barcode reader for samples and reagents
- Water consumption < 5 l/h



Accessories

REF	Description
16663-03	ISE module field installation kit for Na, K, Cl
16660/251	USB-RS232-adapter
18993L	Laser printer
17901M	TFT screen
18991MT	LCD touchscreen monitor
18992P	Personal computer with Windows®
16660/254	Sample segment diameter max. 16 mm
16661/15	Sample segment diameter max. 13 mm



HumaStar 600



Movie

ISE Reagents

REF	Description
16660/14-01	ISE reagent pack
16663/40	ISE tri-level QC kit

Consumables

REF	Description
16663/10	Diluent 4 x 20 ml
16663/11	Diluent-2 4 x 20 ml
16661/01	Chimney (16 pcs)
16663/20	Cuvette clean 6 x 55 ml
16663/25	Tip cleaning kit 4 x 20 ml Tip clean + tip rinse 4 x 20 ml
16661/1	Reaction cuvettes (1,200 pcs)
18971	Wash additive 4 x 25 ml
17470/59	Sample cups 2 ml (500 pcs)

ISE Consumables

REF	Description
16660/11-01	ISE cleaning solution kit 6 x 12 ml
16660/13-01	ISE urine diluent 500 ml
16660/42-01	Li electrode
16660/4-01	Na electrode
16660/5-01	K electrode
16660/6-01	Cl electrode
16660/7-01	Ref. electrode



HumaStar Systems at a Glance



	HumaStar 300SR	HumaStar 600
Throughput, max. tests/hour	300	600
Throughput, typical mix	185	450
Pipetting system	2 arms with needle for sample + reagent	2 arms with needle for sample + reagent
Work mode	Random access	Random access, Optimized batch
Open channels	3	5
Reaction cuvettes	Reusable, Bionex®	Reusable, polymer
Water consumption	< 3 l/h	< 5 l/h
Reference Channels	No	Yes
Barcode reader	Internal for samples, External for reagents	Internal for samples + reagents
Sample tray positions/ STAT	60/all (for samples + solutions)	95/all
Reagent tray positions	40 (for reagents + solutions)	48 (for reagents + solutions)
Clot detector	No	Yes
Shock detector	Yes	Yes
LIS	Ethernet, bidirectional, ASTM	RS-232, bidirectional, ASTM, host query
Languages	English, French, Spanish, optionally expandable	English, Spanish, Russian, Chinese, optionally expandable
Computer, Windows compatibility	External (USB), Windows® 7/8/10	External (RS-232/USB), Windows® 7/10
ISE	No	Optional



System Reagents HumaStar 300SR | HumaStar 600

REF	Format	Unit/Size	Storage	Sample
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ACID PHOSPHATASE

Humazym colorimetric test

10660600	Reagent kit	3 x 50 tests	2...8 °C	SERUM
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ALBUMIN liquicolor

Colorimetric test, BCG method, monoreagent

10560300	Reagent kit	4 x 60 tests	2...25 °C	SERUM EDTA HEP
10560600		6 x 150 tests		

ALKALINE PHOSPHATASE liquicolor

AMP buffer, IFCC

12117300	Reagent kit	2 x 150 tests	2...8 °C	SERUM HEP
12117600		3 x 250 tests		

ALKALINE PHOSPHATASE opt. liquicolor

DEA buffer, DGKC

12027300	Reagent kit	2 x 150 tests	2...8 °C	SERUM HEP
12027600		3 x 250 tests		

alpha-AMYLASE liquicolor

Colorimetric test, monoreagent

12028300	Reagent kit	2 x 100 tests	2...8 °C	SERUM HEP
12028600		3 x 260 tests		



ALKALINE PHOSPHATASE liquicolor

anti-STREPTOLYSIN-O (ASO)

Latex enhanced immunoturbidimetric test

11251300	Reagent kit	1 x 100 tests	2...8 °C	SERUM
11251600		1 x 210 tests		
11351	Standard +	2 x 1 ml		

APOLIPOPROTEIN A1 (APO A1)

Monoreagent

11101600	Reagent kit	1 x 70 tests	2...8 °C	SERUM
11104	Standard +	2 x 1 ml		



Serum



Plasma
EDTA



Plasma
HEP





not included
but required



REF	Format	Unit/Size	Storage	Sample
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APOLIPOPROTEIN B (APO B)

Monoreagent

11102600	Reagent kit	1 x 70 tests	2...8 °C	
11104	Standard 	2 x 1 ml		



auto-BILIRUBIN-D liquicolor

DPD method

10741300	Reagent kit	2 x 100 tests	2...8 °C	 
10741600		5 x 210 tests		



auto-BILIRUBIN-T liquicolor

DPD method

10742300	Reagent kit	2 x 150 tests	2...8 °C	 
10742600		5 x 210 tests		




CALCIUM liquicolor

Colorimetric test, monoreagent, o-cresolphthalein-complexone (OCPC) method

10011300	Reagent kit	3 x 100 tests	2...25 °C	 
10011600		3 x 430 tests		

CHOLESTEROL liquicolor


Enzymatic colorimetric test, monoreagent with LCF, CHOD-PAP method

10028300	Reagent kit	2 x 100 tests	2...8 °C	  
10028600		3 x 150 tests		

NEW

CHOLINESTERASE liquicolor


Enzymatic colorimetric test, Butyrylthiocholine method

12007300	Reagent kit	2 x 100 tests	2...8 °C	
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NEW

CHLORIDE liquicolor

Colorimetric test, monoreagent, TPTZ method

10115300	Reagent kit	2 x 50 tests	2...25 °C	
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System Reagents HumaStar 300SR | HumaStar 600

REF	Format	Unit/Size	Storage	Sample
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CK-MB liquiUV

Immuno-inhibition method

12118600	Reagent kit	2 x 100 tests	2...8 °C	
13612	Calibrator +	2 x 1 ml		
13611	Control +	2 x 2 x 2 ml		


CK NAC activated liquiUV

IFCC method

12015600	Reagent kit	2 x 180 tests	2...8 °C	
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COMPLEMENT C3

Immunoturbidimetric test

11110600	Monoreagent	1 x 70 tests	2...8 °C	
11117	Standard +	2 x 1 ml		

COMPLEMENT C4

Immunoturbidimetric test


11113600	Monoreagent	1 x 70 tests	2...8 °C	
11117	Standard +	2 x 1 ml		



CRP


auto-CREATININE liquicolor

Colorimetric kinetic method (Jaffé)

10052300	Reagent kit	2 x 150 tests	15...25 °C	
10052600		5 x 250 tests		


CREATININE (enzym) liquicolor

Enzymatic colorimetric test

10053300	Reagent kit	1 x 95 tests	2...8 °C	
10053600		1 x 275 tests		

CRP

Immunoturbidimetric test for C-reactive protein colorimetric test, monoreagent with LCF, CHOD-PAP method

11241300	Reagent kit	1 x 100 tests	2...8 °C	
11241600		1 x 250 tests		
11341	Standard +	2 x 1 ml		



Serum



Plasma
EDTA



Plasma
HEP



not included
but required



REF	Format	Unit/Size	Storage	Sample
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CYSTATIN-C liquiDirect

Latex enhanced immunoturbidimetric test

11150600	Reagent kit	2 x 100 tests	2...8 °C	SERUM
11155	Calibrator set	5 x 1 ml		
11153	Control	3 x 1 ml		

FERRITIN

Latex enhanced immunoturbidimetric test

11610600	Reagent kit	1 x 90 tests	2...8 °C	SERUM EDTA HEP
13020600	Calibrator 500	4 x 0.5 ml		

gamma-GT liquicolor

Colorimetric test, Persijn/van der Slik method

12023300	Reagent kit	2 x 100 tests	2...8 °C	SERUM EDTA HEP
12023600		3 x 250 tests		

GLUCOSE liquicolor

Enzymatic colorimetric test, GOD-PAP method

10260300	Reagent kit	2 x 150 tests	2...8 °C	SERUM EDTA HEP
10260600		6 x 210 tests		

GOT (ASAT) IFCC mod. liquiUV

Modified IFCC method

12021300	Reagent kit	2 x 200 tests	2...8 °C	SERUM EDTA HEP
12021600		5 x 310 tests		

GPT (ALAT) IFCC mod. liquiUV

Modified IFCC method

12022300	Reagent kit	2 x 200 tests	2...8 °C	SERUM EDTA HEP
12022600		5 x 310 tests		

HDL CHOLESTEROL liquicolor

Enzymatic colorimetric test, direct homogeneous method

10084300	Reagent kit	2 x 100 tests	2...8 °C	SERUM EDTA HEP
10084600		2 x 180 tests		



GPT (ALAT) IFCC mod. liquiUV



System Reagents HumaStar 300SR | HumaStar 600

REF	Format	Unit/Size	Storage	Sample
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HbA1c liquidirect

Immunoassay, direct method referenced to IFCC method

10770600	Reagent kit	1 x 135 tests	2...8 °C	WB
10776	Calibrator set +	4 x 0.5 ml		
10775	Control blood + normal	2 x 0.5 ml		
	Control blood + abnormal	2 x 0.5 ml		

HOMOCYSTEINE liquiUV

Enzymatic UV test

11140600	Reagent kit	1 x 250 tests	2...8 °C	SERUM EDTA HEP
11145	Calibrator set +	2 x 3 ml		
11143	Control +	3 x 1.5 ml		

IMMUNOGLOBULINS direct IgA

Immunoturbidimetric test

11501300	Reagent kit	1 x 100 tests	2...8 °C	SERUM
11501600		1 x 250 tests		
11504	Calibrator set +	5 x 2 ml		

IMMUNOGLOBULINS direct IgG

Immunoturbidimetric test

11502300	Reagent kit	1 x 100 tests	2...8 °C	SERUM
11502600		1 x 250 tests		
11504	Calibrator set +	5 x 2 ml		

IMMUNOGLOBULINS direct IgM







Immunoturbidimetric test

11503300	Reagent kit	1 x 100 tests	2...8 °C	SERUM
11503600		1 x 250 tests		
11504	Calibrator set +	5 x 2 ml		

IRON TPTZ liquicolor

Photometric colorimetric test, monoreagent with LCF, TPTZ method

12290300	Reagent kit	2 x 100 tests	2...8 °C	SERUM HEP
12290600		2 x 180 tests		

					
Whole Blood	Serum	Plasma EDTA	Plasma HEP	Urine	not included but required



REF	Format	Unit/Size	Storage	Sample
LDH SCE mod. liquiUV Modified SCE method				
12014300	Reagent kit	2 x 100 tests	2...8 °C	
12014600		2 x 180 tests		
LDL CHOLESTEROL liquicolor Enzymatic colorimetric test, direct homogeneous method				
10094600	Reagent kit	2 x 90 tests	2...8 °C	
LIPASE liquicolor Enzymatic colorimetric test				
12006600	Reagent kit	2 x 100 tests	2...8 °C	
LIPOPROTEIN (a), Lp(a) Latex enhanced immunoturbidimetric test				
11105600	Reagent kit	1 x 90 tests	2...8 °C	
11107	Lp(a) Standard	2 x 0.5 ml		
MAGNESIUM liquicolor Photometric colorimetric test, monoreagent with LCF, xylydyl blue method				
10010300	Reagent kit	4 x 30 tests	2...25 °C	
10010600		4 x 60 tests		
MICROALBUMIN Immunoturbidimetric test				
11120600	Reagent kit	1 x 90 tests	2...8 °C	
11124	Standard	2 x 1 ml		
PANCREAS-AMYLASE liquicolor Enzymatic colorimetric test				
12009600	Reagent kit	2 x 100 tests	2...8 °C	



System Reagents HumaStar 300SR | HumaStar 600

REF	Format	Unit/Size	Storage	Sample
PHOSPHORUS liquirapid				
Photometric UV-test, monoreagent, ammonium molybdate method				
10027300	Reagent kit	4 x 30 tests	2...25 °C	
10027600		4 x 60 tests		
POTASSIUM liquiUV				
Enzymatic UV test				
10120300	Reagent kit	1 x 120 tests	2...8 °C	
10120600		1 x 250 tests		
10126	Standard	2 x 3 ml		
RHEUMATOID FACTORS (RF)				
Immunoturbidimetric test				
11261300	Reagent kit	1 x 100 tests	2...8 °C	
11261600		1 x 210 tests		
11361	Standard	2 x 3 ml		
SODIUM liquicolor				
Enzymatic colorimetric test				
10113300	Reagent kit	1 x 120 tests	2...8 °C	
10113600		1 x 250 tests		
10114	Standard	2 x 3 ml		
TOTAL PROTEIN liquicolor				
Photometric colorimetric test, monoreagent, Biuret method				
10570300	Reagent kit	2 x 150 tests	2...25 °C	
10570600		6 x 210 tests		
TRIGLYCERIDES liquicolor ^{mono}				
Photometric colorimetric test, monoreagent with LCF, GPO-PAP method				
10724300	Reagent kit	3 x 60 tests	2...8 °C	
10724600		3 x 210 tests		





REF	Format	Unit/Size	Storage	Sample
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TRANSFERRIN

Immunoturbidimetric test

11115600	Reagent kit	1 x 70 tests	2...8 °C	
11117	Standard	2 x 1 ml		

UREA liquiUV

Kinetic GLDH method

10521300	Reagent kit	2 x 150 tests	2...8 °C	
10521600		5 x 250 tests		

NEW

URINARY TOTAL PROTEIN liquicolor

Colorimetric test, Pyrogallol red method

10590300	Reagent kit	3 x 50 tests	2...8 °C	
10595	Standard	2 x 3 ml		

URIC ACID liquicolor^{plus}

Enzymatic colorimetric test with LCF, PAP method with ascorbate oxidase

10694300	Reagent kit	2 x 100 tests	2...8 °C	
10694600		5 x 250 tests		



Humalyte Plus ISE Systems



REF 17470/10

Humalyte Plus³

Na⁺, K⁺, Cl⁻

REF 17470/20

Humalyte Plus⁵

Na⁺, K⁺, Cl⁻, pH*, iCa⁺⁺

System Reagents

REF	Description
17470/82	Reagent Pack Humalyte Plus ³
17470/83	Reagent Pack Humalyte Plus ⁵
17470/70	QC solution 100 ml
17470/110	QC solution 10 x 2 ml

Reagent consumption – Reagent reach

The consumption of reagent depends on the way the instrument is used. There are several factors that influence the reagent consumption. The following table is a rough estimation of the reagent consumption in relation to the number of samples per day measured.

No. of samples per day	No. of samples per reagent pack
5	100 – 190
10	200 – 350
20	350 – 550
50	600 – 850
100	850 – 1,050

Benchtop ISE electrolyte systems

- Analysis time < 60 sec per sample
- Direct ISE
- System reagent pack
- Optional autosampler for 20 samples and STAT
- For testing serum, whole blood (heparin), plasma (heparin) or diluted urine
- LCD touchscreen
- Internal thermal printer
- Memory for 200 samples, QC
- Automatic calibration
- Standby mode
- Quality control database



Humalyte



Movie

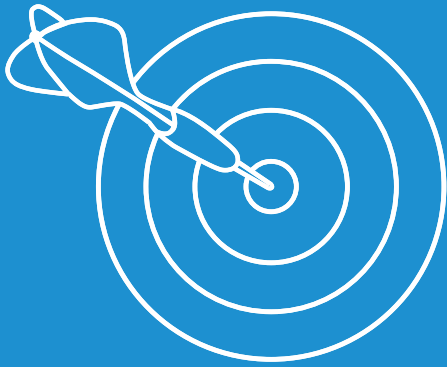
Consumables

REF	Description
17470/72	Weekly cleaning solution 100 ml
17470/71	Daily cleaning solution 100 ml
17470/11	K electrode (K ⁺)
17470/12	Na electrode (Na ⁺)
17470/13	Cl electrode (Cl ⁻)
17470/14	Ca electrode (iCa ⁺⁺) (Humalyte Plus ⁵)
17470/15	pH electrode (pH) (Humalyte Plus ⁵)
17470/17	Reference electrode
17470/18	Internal electrode
17470/19	Reference membrane (10 pcs)
17470/76	Ca filling solution 100 ml (Humalyte Plus ⁵)
17470/74	K filling solution 100 ml
17470/75	pH/Na/Cl filling solution 100 ml
17470/78	Ref. filling solution 100 ml
17470/79	Na conditioner 100 ml
17470/86	Urine diluent 100 ml
18144/5	Thermal printer paper (5 pcs)

Accessories

REF	Description
17470/30	Autosampler for 20 sample cups
17470/59	Sample cups 2 ml (500 pcs)
17470/7	Barcode reader (RS232)

* Used for correction of iCa results only!



External Quality Assessment

ESfEQA is a global EQA service offered from the German company ESfEQA GmbH in cooperation with HUMAN. The ESfEQA program is accredited according to DIN EN ISO /IEC 17043:2010 by the German accreditation board DAkkS. ESfEQA operates completely independent from IVD manufacturers.

ESfEQA offers a wide range of EQA surveys organized in four areas of IVD: biochemistry (including clinical chemistry, coagulation, urinalysis and others), immunology, microbiology and hematology.

ESfEQA allows laboratories to regularly evaluate their performance by measuring blinded survey samples as if they are patient samples. Testing results are compared to peer laboratories measuring the same blinded samples using the same methods, instruments and reagents. So it supports laboratories to fulfill their quality requirements and provides confidence in reporting their patient results. Even small laboratories in rural areas get the chance to participate in EQA Services and improve their testing accuracy and reliability.





ESfEQA

Web-based, simple and user-friendly EQA

ESfEQA is HUMAN's recommendation for a web-based, international External Quality Assessment (EQA) program. It helps laboratories to ensure precise, reliable and comparable results, irrespective of where in the world they are obtained. ESfEQA is unique due to its powerful HUMAN peer group. It is the only accredited EQA program which supports the HUMAN peer group in order to guarantee and increase the statistical security of result with HUMAN products.

ESfEQA offers programs in four different areas

Biochemistry*

- Clinical Chemistry
- Blood Gas and Electrolytes
- Cardiac Marker
- Drugs of Abuse
- Ethanol
- Glycated Hemoglobin
- Lipids
- Qualitative Urine Analysis
- Therapeutic Drugs
- Urine Analysis

Immunology

- Allergology
- Autoimmunity
- Hormones*
- Specific Proteins*
- Tumor Marker*

Hematology Coagulation*

- Erythrocyte Sedimentation Rate
- Fecal Occult Blood
- Hemogram

Microbiology/Virology

- Adenovirus
- Aspergillus Fumigatus
- Bacteriology
- Borrelia*
- Brucella
- Chlamydia Pneumoniae*
- Chlamydia Trachomatis*
- Coxsackievirus
- ECHO Virus
- Enterovirus
- Epstein-Barr Virus*
- Hepatitis A Virus*, Hepatitis B Virus*
- HTLV I/II
- Infectious Disease (HIV, HCV, HBV)*
- Influenza A Virus, Influenza B Virus
- Leptospira
- Measles*
- Parainfluenza Virus
- Parvovirus B 19*
- Respiratory Syncytial Virus
- Syphilis*
- ToRCH*
- Tropical Diseases
- Varicella Zoster Virus*



ESfEQA

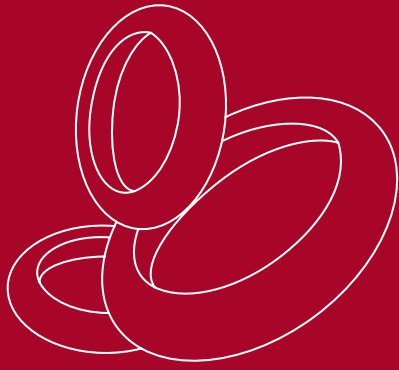
Register now at www.esfeqa.eu/en

This is all you need to participate in ESfEQA

6 steps from ordering to download of results



Website



Hematology

HUMAN's automated hematology products are designed for small to large laboratories and range from 30 to 80 samples throughput per hour. HUMAN offers both 3-part and 5-part differential systems with specially developed and dedicated reagents suitable for human and veterinary applications. Controls and calibrators for all systems are available on a standing order scheme.

A point-of-care hand-held hemoglobin meter and an erythrocyte sedimentation (ESR) instrument with 24 samples per hour throughput complete the line.



HumaCount 3-part Systems

The 3-part systems based on electrical impedance enable counting of 3 types of white blood cells together with an analysis of red blood cells and platelets – HumaCount 80^{TS}|30^{TS}, with 80 or 30 full blood counts per hour. HUMAN offers extremely stable reagents which can be stored at temperatures up to 42 °C. A feature which is unique for 3-part analyzers.

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3-part HumaCount Reagents



HumaCount 80^{TS}



HumaCount 30^{TS}

HumaCount 5-part Systems

The advanced 5-part systems are based on proven impedance detectors and 3D laser technology that allow the differentiation of 5 types of white blood cells, atypical lymphocytes (ALY), large immature cells (LIC), further the analysis of red blood cells and platelets.

 **Page 53**



5-part HumaCount Reagents



HumaCount 5D



HumaCount 5L



HumaSRate 24^{PT} ESR-System

HUMAN's ESR (erythrocyte sedimentation rate) system is suitable for small to medium sized labs. The use of primary EDTA tubes for ESR reading is cost effective because no ESR tube is required and offers more flexibility to perform ESR tests at any time and without additional blood sampling.



HumaSRate 24^{PT}

 [Page 57](#)

Hematology

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Hemoglobin Meter

The HumaMeter Hb^{Plus} is a small, battery-operated hemoglobin meter intended for bedside use, doctor's offices and in rural areas.



HumaMeter Hb^{Plus}

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HumaCount 3-part and 5-part Systems

The automated 3- and 5-part differential hematology systems with up to 29 parameters are reliable and easy to operate. Our hematology systems have been on the market for many years with excellent references regarding robustness and reliability and meet all requirements of a hematological laboratory.

HumaCount 80^{TS}|30^{TS} Automated hematology system

Successful 22 parameter HumaCount system

Highlights:

- Heat stable reagents (2-42°C storage temp.)
- Large color touchscreen for intuitive operation
- Auto-clean and auto-maintenance cycles
- Auto-control and calibrator requests
- Sample rotor for comfortable use
- Extended QC procedures
- Built-in thermal printer
- Veterinary mode*
- Optional rechargeable battery and solar panel
- Optional 2D barcode scanner for error-free upload of target values



HumaCount
30^{TS}|80^{TS}



Movie



REF 16420/80

HumaCount 80^{TS} 80 samples/hour



REF 16420/30

HumaCount 30^{TS} 30 samples/hour

Accessories

REF	Description
16350/300	Tube adapter I
16350/301	Tube adapter II
16350/302	Tube adapter III
18961	UPS1 KVA / 230 V
18965/220	Portable battery system
18965/100	Solar panel
16430/11	2D barcode scanner

Consumables

REF	Description
18144/5	Thermal printer paper (5 pcs)
16420/324	Reagent tubing kit

* Usage of the veterinary mode is on the user's own responsibility!



REF 16430

HumaCount 5L

Automated hematology system

Patented laser technology for 5-part differentiation
Highlights:

- With a throughput of 60 samples/hour and an auto-sampler, this system meets the requirements of medium to large sized laboratories
- Integration into Hospital Management System
- Unidirectional LIS connection (HL7 standard)
- Continuous workflow through internal reagent reservoirs
- Only 3 reagents required
- Optional auto-sampler with built-in barcode reader
- STAT operation with closed or open tube
- Large color touchscreen
- Optional 2D barcode scanner for error-free upload of target values



Auto-sampler

Accessories

REF	Description
16430/10	Auto-sampler
16430/12	Small sample module (25 µl sample vol.)
18965/220	Portable battery system
18965/100	Solar panel
16430/11	2D barcode scanner
16430/9	Case Study Book



Case Study Book

Consumables

REF	Description
16430/14	Reagent tubing kit



Case Study Book



HumaCount 5L



Movie



- Reduced clogging rates due to the burning of proteins through a high energy boost at each measuring cycle
- Low detergent consumption
- Continuous workflow with reliable cell counting



HumaCount 5-part System

OptimalCount
Technology



REF	16450
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HumaCount 5D Automated 5-part hematology system

3D laser detection for improved 5-part differentiation
HUMAN's latest hematology technology

Highlights:

- Distinct 5-part diff that summing up to 29 parameters
- Definite immature cell count (LIC, ALY)
- Direct capillary process by OptimalCount Technology
- 20 µl venous or capillary blood
- Up to 60 samples/hour
- Software switch between 5-part and CBC mode to save costs
- LIS connection (HL7 standard)
- STAT operation with any tube type
- Integrated PC with a storage capacity of 50,000 samples
- Large color touchscreen
- Optional 2D barcode scanner for error-free upload of target values



HumaCount 5D



Quick Guide
Capillary Blood Mode

Accessories

REF	Description
16430/11	2D barcode scanner
18965/220	Portable battery system
18965/100	Solar panel

Consumables

REF	Description
16070/30	End-to-end capillaries 20 µl (100 pcs)

OptimalCount Technology for capillary samples

OptimalCount Technology

- > Accuracy as high as on venous samples
- > Defined blood volume by capillary tube
- > Total sample volume 20 µl, 0 µl dead volume
- > Dilution defined by auto-diluent dispense
- > No manual steps required





HumaCount System Reagents

HumaCount 80^{TS}/60^{TS}/30^{TS}

REF	Unit/Size	Storage
HC-DILUENT		
17400/11*	20 l	2...42 °C
HC-LYSE CF (cyanide-free reagent)		
17400/22*	2 x 1 l	2...42 °C
HC-CLEANER (high quality cleaning)		
17400/31*	1 l	2...42 °C
HC-CONTROL (3 levels, multi-parameter)		
17400/40*	3 x 2.5 ml	2...8 °C
HC-CALIBRATOR		
17400/50	1 x 2 ml	2...8 °C

* Reagents are suitable for previous HumaCount and HumaCount^{plus}

HumaCount 5L

REF	Unit/Size	Storage
HC5L-DILUENT		
16430/20	20 l	15...30 °C
HC5L-LYSE CF (cyanide-free reagent)		
16430/30	5 l	15...30 °C
HC5L-DIFF		
16430/40	1 l	15...30 °C
HC5L-Control (3 levels, multi-parameter)		
16430/50	2 x 3 x 3 ml	2...8 °C
HC-CALIBRATOR		
17400/50	1 x 2 ml	2...8 °C

HumaCount 5D

REF	Unit/Size	Storage
HC5D DILUENT		
16450/10	20 l	2...30 °C
HC5D CBC LYSE		
16450/20	200 ml	2...30 °C
HC5D DIFF LYSE		
16450/30	500 ml	2...30 °C
HC5D Clean		
16450/60	50 ml	2...30 °C
HC5D CONTROL (3 levels, multi-parameter)		
16450/40	2 x 3 x 3 ml	2...8 °C
HC-CALIBRATOR		
17400/50	1 x 2 ml	2...8 °C



5-part HumaCount Reagents



HumaCount Systems at a glance



	HumaCount 80 ^{TS}	HumaCount 30 ^{TS}	HumaCount 5D	HumaCount 5L
Leucocyte differentiation	3-part	3-part	5-part	5-part
Throughput	80 samples/hour	30 samples/hour	60 samples/hour	60 samples/hour
No. of parameters	22	22	29	26
Sample volume	25 µl	25 µl	20 µl venous or capillary blood	110 µl whole blood; 25 µl optional with small sample module
Display	800 x 480 pixels	800 x 480 pixels	800 x 600 pixels	800 x 600 pixels
LIS / HL7	X	X	X	X
Veterinary mode	X	X		
Parameters				
WBC	X	X	X	X
LYM / LYM%	X	X	X	X
MID / MID%	X	X		
MON / MON%			X	X
NEU / NEU%			X	X
EOS / EOS%			X	X
BAS / BAS%			X	X
ALY / ALY%*			X	
LIC / LIC%*			X	
GRA / GRA%	X	X		
RBC	X	X	X	X
HCT	X	X	X	X
MCV	X	X	X	X
RDWcv	X	X	X	X
RDWsd	X	X	X	X
HGB	X	X	X	X
MCH	X	X	X	X
MCHC	X	X	X	X
PLT	X	X	X	X
PCT	X	X	X	X
MPV	X	X	X	X
PDWcv	X	X	X	X
PDWsd	X	X		X
P-LCC*	X	X	X	X
P-LCR*	X	X	X	X

* Research parameter only



Erythrocyte Sedimentation Rate (ESR) System

HUMAN offers an ESR (erythrocyte sedimentation rate) system for small to medium sized labs. The use of primary EDTA tubes for ESR reading is cost-efficient because no ESR tube is necessary. HumaSRate 24^{PT} offers the flexibility to run ERS tests at any time without additional blood collection.



REF 15024

HumaSRate 24^{PT}

Unique ESR analyzer without consumables

- Real erythrocyte sedimentation rate analyzer
- Use of primary EDTA tubes - no consumables required
- Throughput: up to 24 samples/h
- Channels: 8 with integrated mixer
- Unique sedimentation curve (outstanding accuracy, measurement every 10 sec)
- Excellent correlation to Westergren
- Integrated barcode reader to identify the sample ID
- QC module with Levey-Jennings-diagram
- Data storage of up to 5,000 patient results
- Touchscreen with intuitive user interface
- LIS connectivity

HumaSRate 24^{PT}

Consumables

REF	Description
15024/40	HSRate-Control (2 x 2 ml)
73040/12	HumaTube K3-EDTA, 3 ml, PET (12 x 100 pcs)
73032/12	HumaTube K2-EDTA, 3 ml, PET (12 x 100 pcs)

Test Credits - HumaSRate 24^{PT}

REF	Description
15024/12	Smart Card for HumaSRate 24 ^{PT} (1,200 tests)



Hemoglobin Meter

The portable HumaMeter Hb^{Plus} system for hemoglobin determination follows a unique concept combining ease of use and flexibility in application. This compact analyzer provides results with the AHD cyanide-free reference method without calibration, wherever the patient is. The reagent cuvettes and controls are extremely stable with a shelf life of 3 years.



REF

16070

HumaMeter Hb^{Plus}

Portable system for the determination of hemoglobin in blood

- 20 µl sample volume
- Prefilled reagent cuvettes
- Measuring range: 0.5 – 30 g/dl
- Rechargeable batteries

HumaMeter Hb^{Plus}

System Reagents

REF	Unit/Size	Storage	Sample
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Reagent Hb

16070/1	100 tests	4...40 °C	 
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Calibrator Set Hb

16070/2	6 x 1.5 ml	4...40 °C	
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Control Set Hb (2 level)

16070/3	2 x 1.5 ml	4...40 °C	
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Consumable

REF	Description
16070/30	End-to-end capillaries 20 µl (100 pcs)



AHD (Alkaline Haematin Detergent)

The only recognized Hb reference method!

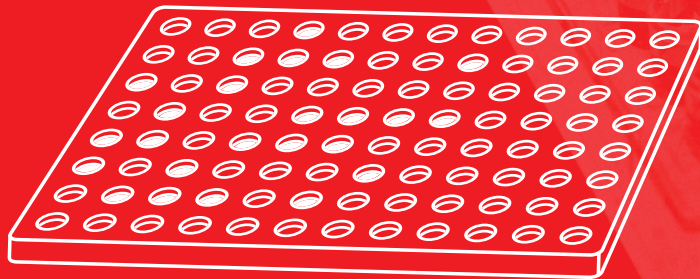
In contrast to most other methods and systems for the determination of Hb in blood, the AHD method does not contain any toxic cyanide. Moreover, what is known to only a few experts, in the AHD method all corpuscular parts and lipid components are solubilized, **preventing** – contrary to all other methods – **the overestimation** of hemoglobin concentrations. Due to this, AHD is the only internationally recognized reference method for the determination of hemoglobin (DIN 58931).



Whole Blood



Capillary Blood



ELISA

The HUMAN ELISA line of reagents and analyzers offers unique solutions for all sizes of laboratories from low to high throughput.

HUMAN ELISA reagents incorporate more than 100 assays for the detection of:

- Infectious Diseases
- Hormones
- Tumor Markers
- Autoimmune Diseases (IMTEC line)

HUMAN ELISAs are easy to use and flexible in automation.

The HUMAN family of fully automated ELISA analyzers provides best solutions for medium to high volume laboratories:

- Elisis Uno
- Elisis Duo
- Elisis Quattro

On the lower throughput end, HUMAN's ELISA line is completed with basic ELISA equipment for smaller laboratories or esoteric parameters:

- HumaReader Line
- Washer
- Incubator





ELISA Reagents

Infectious Diseases

ELISA infectious serology constitutes an indispensable and yet reliable method for accurate and individual diagnosis as well as prognosis. HUMAN provides a broad range of high quality state-of-the-art assays for the diagnosis of infections caused by viral, bacterial and parasitic agents.

Our offer includes assays for:

- STDs (Sexually Transmitted Diseases) - a group of diseases that is among the five most important types of diseases affecting adults seeking health care in developing countries. Parameters include: HIV, Hepatitis, Syphilis, Chlamydia.
- TORCH - a group of pathogens causing prenatal infections with potentially serious consequences for the unborn: Toxoplasma, Rubella, Cytomegalovirus, Herpes simplex.
- Other infections: Epstein-Barr virus, varicella-zoster virus, measles, mumps, etc.
- Regional or endemic diseases with mild or symptomless courses, but serious consequences in the chronic phase: Dengue.



HBsAg

Tumor Markers

Tumor markers are an integral part of modern cancer management. They are primarily used for monitoring and additionally for diagnostic and prognostic purposes, in combination with other clinical and paraclinical parameters.



CA 15-3 Ag

Hormones

Determination of hormone status is part of modern and individual differential diagnosis.

The HUMAN thyroid ELISA portfolio is one of the broadest thyroid testing panels available on the market, including autoantibodies to Thyroglobulin (TG), Thyroid peroxidase (TPO) and TSH receptor (TRAb).

Allergy

Test for the detection of total IgE as an aid in the diagnosis of allergies.

ELISA Reagents for Autoimmune Diseases

HUMAN, with its autoimmune brand IMTEC, is one of the leading experts and providers of autoimmune in vitro diagnostics. Further information can be found in our separate Autoimmune DX product catalog.



Workstation



COMBIWASH

With the Combiwash, HUMAN offers a unique workstation for washing, shaking and incubation of microtiter plates. Flexible washing protocols can be programmed; programs for shaking and incubation are also freely definable.

 Page 69

ELISA

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HumaReader Single plus

Readers

A single strip and a high-speed plate reader designed for low throughput ELISA users. Both instruments are easy to use and provide reliable and fast results.

 Page 70

Elisys Automated Analyzers



Elisys Duo

HUMAN's automated ELISA analyzers cover the requirements of small to large ELISA laboratories. Full automation is available for 1, 2 or 4 plates with different test combinations on each plate. Sample barcode reading for secure and automatic sample identification is standard on the larger instruments. All HUMAN ELISA tests are preprogrammed and additional applications can be added at any time.

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ELISA

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DENGUE IgG ELISA

Infectious Diseases

REF	Format	Unit/Size	Storage	Remark	Sample
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CHLAMYDIA TRACHOMATIS

Quantitative detection of IgG or IgA antibodies to *Chlamydia trachomatis*

51228	IgG	96 tests	2...8 °C		
51328	IgA				


CMV

Qualitative determination of IgG or IgM antibodies to cytomegalovirus

51203	IgG	96 tests	2...8 °C	PEI calibration	
51103	IgM				


DENGUE

Qualitative determination of IgG or IgM antibodies to dengue virus

51240	IgG	96 tests	2...8 °C		
51140	IgM				


EBV

Qualitative determination of IgG or IgM antibodies to Epstein-Barr virus

51204	IgG	96 tests	2...8 °C		
51104	IgM				


H. PYLORI

Qualitative determination of IgG or IgA antibodies to *Helicobacter pylori*

51222	IgG	96 tests	2...8 °C		
51322	IgA				


HBsAg ultra sens

Qualitative determination of hepatitis B surface antigen (HBsAg)

51050	Antigen test	96 tests	2...8 °C	WHO calibration	
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anti-HBc*

Quantitative determination of total anti-HBc antibodies (anti-HBc-ab)

51260	Antibody test	96 tests	2...8 °C	PEI calibration	
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* Currently without CE-mark

SERUM

Serum

EDTA

Plasma
EDTA

HEP

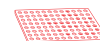
Plasma
HEP

CITRATE

Plasma
Citrate

OXALATE

Plasma
Oxalate



REF	Format	Unit/Size	Storage	Remark	Sample
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anti-HBs*

Qualitative determination of antibodies to hepatitis B surface antigen (HBsAg)

51255	Antibody test	96 tests	2...8 °C	PEI calibration	SERUM EDTA HEP OXALATE
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anti-HCV

Qualitative determination of anti-HCV antibodies

51275	Antibody test	96 tests	2...8 °C	Recomb. antigens	SERUM EDTA HEP CITRATE
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anti-HIV 1/2

Qualitative determination of antibodies to human immunodeficiency virus types 1 and 2 (HIV-1, HIV-2)

51205C	Antibody test	96 tests	2...8 °C	Recomb. antigens	SERUM EDTA HEP CITRATE
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HIV Ag/Ab

Qualitative determination of the human immunodeficiency virus (HIV) p24 antigen and antibodies to HIV-1 (incl. Group O) and HIV-2

51215	Antigen / Antibody test	96 tests	2...8 °C	Recomb. antigens Monocl. antibodies	SERUM EDTA HEP CITRATE
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HSV

Qualitative determination of IgG antibodies to herpes simplex virus type 1 or 2 or IgM antibodies to herpes simplex virus

51216	HSV 1 IgG	96 tests	2...8 °C		SERUM
51226	HSV 2 IgG				
51126	HSV IgM				

Measles Virus

Qualitative determination of IgG or IgM antibodies to measles virus

51206	IgG	96 tests	2...8 °C		SERUM
51106	IgM				

ELISA

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ELISA

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Infectious Diseases

REF	Format	Unit/Size	Storage	Remark	Sample
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MUMPS

Qualitative determination of IgG or IgM antibodies to mumps virus

51207	IgG	96 tests	2...8 °C		SERUM
51107	IgM				

RUBELLA Virus

Qualitative determination of IgG or IgM (μ -capture) antibodies to rubella virus

51208	IgG	96 tests	2...8 °C	WHO calibration	SERUM
51108	IgM μ -capture			SERUM	EDTA

SYPHILIS SCREEN

Qualitative determination of antibodies to *Treponema pallidum*

51005	Antibody test	96 tests	2...8 °C		SERUM	EDTA	HEP	CITRATE
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Toxo

Qualitative determination of IgG or IgM (μ -capture) antibodies to *Toxoplasma gondii*

51209	IgG	96 tests	2...8 °C	WHO calibration	SERUM
51119*	IgM μ -capture			SERUM	EDTA

VZV

Qualitative determination of IgG or IgM antibodies to varicella-zoster virus

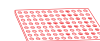
51210	IgG	96 tests	2...8 °C		SERUM
51110	IgM				

* Planned availability end of Q1 2020



Serum

Plasma
EDTAPlasma
HEPPlasma
Citrate



Hormones

REF	Format	Unit/Size	Storage	Remark	Sample
25-OH Vitamin D					
Quantitative determination of 25-OH vitamin D					
55500	Antigen test	96 tests	2...8 °C	ID-LC / MS-MS calibration	SERUM HEP
CORTISOL					
Quantitative determination of cortisol					
55050	Antigen test	96 tests	2...8 °C		SERUM EDTA
DHEA-S					
Quantitative determination of dehydroepiandrosterone sulfate					
55060	Antigen test	96 tests	2...8 °C		SERUM EDTA
ESTRADIOL					
Quantitative determination of estradiol					
55030	Antigen test	96 tests	2...8 °C		SERUM EDTA
ESTRIOL					
Quantitative determination of free estriol					
55040	Antigen test	96 tests	2...8 °C		SERUM EDTA
FSH					
Quantitative determination of follicle stimulating hormone (FSH)					
53020	Antigen test	96 tests	2...8 °C	WHO calibration	SERUM
hCG					
Quantitative determination of human chorionic gonadotropin (hCG)					
53040	Antigen test	96 tests	2...8 °C	WHO calibration	SERUM



25-OH Vitamin D ELISA

ELISA

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ELISA

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Hormones

REF	Format	Unit/Size	Storage	Remark	Sample
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LH

Quantitative determination of luteinizing hormone (LH)

53010	Antigen test	96 tests	2...8 °C	WHO calibration	SERUM
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PRL

Quantitative determination of prolactin (PRL)

53030	Antigen test	96 tests	2...8 °C	WHO calibration	SERUM
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PROGESTERONE

Quantitative determination of progesterone

55020	Antigen test	96 tests	2...8 °C		SERUM EDTA
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TESTOSTERONE

Quantitative determination of testosterone

55010	Antigen test	96 tests	2...8 °C		SERUM EDTA
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T3

Quantitative determination of total triiodothyronine (T3)

54010	Antigen test	96 tests	2...8 °C		SERUM EDTA HEP
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T4

Quantitative determination of total thyroxine (T4)

54020	Antigen test	96 tests	2...8 °C		SERUM EDTA HEP
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ft3

Quantitative determination of free triiodothyronine (ft3)

54015	Antigen test	96 tests	2...8 °C		SERUM
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ft3 ELISA



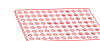
Serum



Plasma
EDTA



Plasma
HEP



Hormones

REF	Format	Unit/Size	Storage	Remark	Sample
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ft4

Quantitative determination of free thyroxine (fT4)

54025	Antigen test	96 tests	2...8 °C		SERUM
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TSH

Quantitative determination of thyrotropin (TSH)

54030	Antigen test	96 tests	2...8 °C	WHO calibration	SERUM
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TSH RECEPTOR ANTIBODIES

Quantitative determination of anti-TSH receptor antibodies

ITC85030	Antibody test	96 tests	2...8 °C	WHO calibration	SERUM
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TG-ANTIBODIES

Quantitative determination of anti-thyroglobulin antibodies (IgG)

ITC85010	IgG	96 tests	2...8 °C	WHO calibration	SERUM
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TPO-ANTIBODIES

Quantitative determination of anti-thyroid peroxidase antibodies (IgG)

ITC85020	IgG	96 tests	2...8 °C	WHO calibration	SERUM
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ELISA

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ELISA

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Tumor Markers

REF	Format	Unit/Size	Storage	Remark	Sample
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AFP

Quantitative determination of alpha-fetoprotein

52010	Antigen test	96 tests	2...8 °C	WHO calibration	
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CA 125 Ag

Quantitative determination of cancer antigen 125 (CA 125 Ag)

52050	Antigen test	96 tests	2...8 °C		
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CA 15-3 Ag

Quantitative determination of cancer antigen 15-3 (CA 15-3 Ag)

52080	Antigen test	96 tests	2...8 °C		
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CA 15-3 Ag ELISA


CA 19-9 Ag

Quantitative determination of cancer antigen 19-9 (CA 19-9 Ag)

52060	Antigen test	96 tests	2...8 °C		
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CEA

Quantitative determination of carcinoembryonic antigen

52020	Antigen test	96 tests	2...8 °C	WHO calibration	
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PSA

Quantitative determination of total prostate specific antigen

52030	Antigen test	96 tests	2...8 °C	WHO calibration	
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fPSA

Quantitative determination of free prostate specific antigen

52035	Antigen test	96 tests	2...8 °C	WHO calibration	
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Serum



Allergy

REF	Format	Unit/Size	Storage	Remark	Sample
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Total IgE

Quantitative determination of total immunoglobulin E (IgE)

51015	IgE	96 tests	2...8 °C	WHO calibration	SERUM
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ELISA

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Workstation

With Combiwash, HUMAN offers a unique workstation for the washing, shaking and incubation of microtiter plates. Flexible washing protocols can be programmed; shaking and incubation are also freely definable.

REF	18460
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COMBIWASH

Automatic microtiter plate washer, shaker and incubator

- Up to 100 wash protocols
- 4 different wash bottles
- 2 incubator positions for 25°C / 30°C or 37°C
- Plate shaking ability



Accessories

REF	Description
18460/5	12-pin manifold
18460/26	110 VA transformer



Combiwash



Readers

Single strip and high speed plate reader are designed for low throughput ELISA users. Both instruments are easy to use and provide reliable and fast results.

ELISA

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REF

18000

HumaReader Single plus

Microtiter strip reader

- HUMAN assays preprogrammed (plug & run) and user programmable tests
- Color touchscreen
- Very short start-up time
- Convenient automatic strip transport (up to 3 strips)
- Curve and cut-off calculation
- Built-in printer and incubator
- Photometer with automatic filter wheel
- 4 filter wheel: 405, 450, 492, 630 nm installed

Accessories

REF	Description
18001	3 x 12 well boat
16801/20	Thermal printer paper (10 pcs)

REF

16670

HumaReader HS

Microtiter plate reader



HumaReader HS

- HUMAN assays preprogrammed (plug & run) and user programmable tests
- 8-channel, high-speed reading of full plate in 5 sec
- Memory for 200 tests and 10,000 results
- Touchscreen, Windows® software
- 8 filter wheel: 405, 450, 492, 630 nm installed

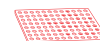
Accessories

REF	Description
16670/491	PC mouse with USB
18993L	Laser printer
16670/51	Filter optical 412 nm ¹
16670/52	Filter optical 420 nm ¹
16670/53	Filter optical 490 nm ¹
16670/54	Filter optical 505 nm ¹
16670/55	Filter optical 520 nm ¹
16670/56	Filter optical 540 nm ¹
16670/58	Filter optical 545 nm ¹
16670/59	Filter optical 546 nm ¹

Accessories

REF	Description
16670/57	Filter optical 550 nm ¹
16670/63	Filter optical 570 nm ¹
16670/60	Filter optical 578 nm ¹
16670/62	Filter optical 590 nm ¹
16670/61	Filter optical 595 nm ¹
16670/67	Filter optical 600 nm ¹
16670/65	Filter optical 650 nm ¹
16670/66	Filter optical 655 nm ¹

¹Spare part set attenuation glasses REF 16670/82 must be ordered separately!



Elisys Automated Analyzers

HUMAN's automated ELISA analyzers cover the requirements of small to large laboratories. Full automation is available for 1, 2 or 4 plates with different test combinations on each plate. Sample barcode reading for secure, automatic sample identification is standard on the larger instruments. All HUMAN ELISA tests are preprogrammed and validated. Additional applications can be added at any time.



REF	17350
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Elisys Uno

1-plate fully automated ELISA analyzer incl. UPS

- Fully automatic processing of one microtiter plate
- Up to 8 parameters simultaneously on one plate
- Time management system
- HUMAN assays preprogrammed (plug & run) and user programmable tests
- 8 filter wheel: 405, 450, 492, 630 nm installed
- Robust steel needle with liquid level detection



Elisys Uno

Accessories

REF	Description
17359/1C	AID predilution rack
17359/10	Blood bank rack
17359/1B	Combined dilution/reagent rack
17359/3	Reagent rack Dengue & H. Pylori
17359/4	Reagent rack HIV & Hepatitis
17359/5	Reagent rack hormone
17359/2	Reagent rack infectious diseases
17359/1	Reagent rack open design
17359/7	Sample rack 96 round sample ø 12 mm
17359/8	Sample rack 96 round sample ø 13 mm
17353/9	Bottle set (wash, waste, rinse)
17353/6	Rinse bottle 1 l with plain cap
17353/2	Rinse bottle 1 l with sensor cap
17353/3	Wash bottle 2 l with sensor cap
17353/7	Wash/waste bottle 2 l plain cap (1 pc)
17353/8	Wash/waste bottle 2 l plain cap (3 pcs)
17353/4	Waste bottle 2 l with sensor cap
18992P	Computer with Windows®
17901M	TFT screen
18993L	Laser printer

Consumables

REF	Description
17350/B7	Reagent bottle 7 ml (100 pcs)
17350/13	Reagent bottle 15 ml (12 pcs)
17350/B25	Reagent bottle 25 ml (70 pcs)
17350/14	Reagent bottle 30 ml (12 pcs)
17350/B100	Reagent bottle 100 ml (10 pcs)
17350/16	Sample vials 2 ml (500 pcs)
17350/15	Sample vial caps (500 pcs)



Elisys Automated Analyzers

ELISA

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UPDATE



REF

17200

Elisys Duo

2-plate fully automated ELISA analyzer incl. UPS

- Up to 3 plates in one run
- Swing arm mounted „all in one PC“ with Windows® 10 (touchscreen)
- Continuous loading of reagents, plates and samples
- HUMAN assays preprogrammed (plug & run) and user programmable tests
- 8 filter wheel with 450 nm and 620 nm installed
- Maximum safety with carbon coated tips



Elisys Duo



Movie

Accessories

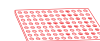
REF	Description
17200/30	Adapter 100 ml HUMAN square bottle
17200/31	Adapter ring 15 ml closed (set of 4)
17200/27	Adapter ring 15 ml (set of 6)
17200/28	Adapter ring 2.5 ml (set of 6)
17200/29	Adapter ring 16 ml (set of 6)
17200/139	Bottle organizer tray
17200/57	Filter optical 405 nm
17200/55	Filter optical 492 nm
17200/54	Filter optical 532 nm
17200/58	Filter optical 540 nm
17200/53	Filter optical 550 nm
17200/59	Filter optical 570 nm
17200/61	Filter optical 610 nm
17200/50	Filter optical 650 nm
17200/51	Filter optical 690 nm
18993L	Laser printer
17200/26	Rack 2 position square bottle (3 lanes)
17200/24	Rack control
17200/25	Rack reagent (2 lanes)
17200/23	Rack sample

Accessories

REF	Description
17200/124	Square bottle cap
17200/125	Square bottle, PP, 1 l with cap
17200/123	Square bottle, PVC, 2 l without cap
17200/38	Washer bottle 1 l (level switch red)
17200/39	Washer bottle 2 l (level switch blue)
17200/40	Washer bottle 2 l (level switch yellow)

Consumables

REF	Description
16300/10	300 µl disposable tips (10 x 96 pcs)
16300/11	1100 µl disposable tips (10 x 96 pcs)
17200/255	Deep well dilution plate square (40 pcs)
17200/137	Waste bag with 'Biohazard' label (10 pcs)
17350/B7	Reagent bottle 7 ml (100 pcs)
17350/B25	Reagent bottle 25 ml (70 pcs)
17350/B100	Reagent bottle 100 ml (10 pcs)



REF	16300
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Elisys Quattro

4-plate fully automated ELISA analyzer incl. UPS

- Up to 7 plates in one run, 4 independent incubators
- True walk-away loading capacity
- Up to 180 samples, up to 60 reagents
- Continuous loading of reagents, plates and samples
- HUMAN assays preprogrammed (plug & run) and user programmable tests
- Maximum safety with carbon coated tips



Elisys Quattro

ELISA

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Accessories

REF	Description
16300/71	Cable RS232 PCSys/analyzer
17200/124	Cap, bottle 2 l
17200/57	Filter optical 405 nm
17200/55	Filter optical 492 nm
17200/54	Filter optical 532 nm
17200/58	Filter optical 540 nm
17200/53	Filter optical 550 nm
17200/59	Filter optical 570 nm
17200/61	Filter optical 610 nm
17200/50	Filter optical 650 nm
17200/51	Filter optical 690 nm
16300/102	Plate carrier 'A1'
16300/38	Reagent rack 0
16300/40	Reagent rack 2
16300/39	Reagent rack II
16300/40-2	Reagent rack R
16300/41	Sample rack 20 positions
17200/125	Square bottle, 1 l with cap
17200/123	Square bottle, PVC, 2 l without cap
16300/49	Washer bottle 1 l black

Accessories

REF	Description
17200/38	Washer bottle 1 l (level switch red)
17200/39	Washer bottle 2 l (level switch blue)
17200/40	Washer bottle 2 l (level switch yellow)
18992P	PC with Windows®
17901M	TFT screen
18993L	Laser printer

Consumables

REF	Description
16300/10	300 µl disposable tips (10 x 96 pcs)
16300/11	1100 µl disposable tips (10 x 96 pcs)
18631	Dilution cuvettes
17200/137	Waste bag with 'Biohazard' label (10 pcs)
17350/B7	Reagent bottle 7 ml (100 pcs)
17350/B25	Reagent bottle 25 ml (70 pcs)
17350/B100	Reagent bottle 100 ml (10 pcs)



Elisys Automated Analyzers at a Glance

ELISA

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	Elisys Uno	Elisys Duo	Elisys Quattro
Analyzer type	1-plate fully automated ELISA analyzer	2-plate fully automated ELISA analyzer	4-plate fully automated ELISA analyzer
Plate loading capacity	1 plate/run	Up to 3 plates/run	Up to 7 plates/run
Samples positions	96 (without predilution)	Up to 144 tubes	Up to 180 tubes
Reagent positions	27 positions on one reagent rack	40 positions on five reagent racks	60 positions on five reagent racks
Internal barcode reader	No	Sample ID, rack type	Sample ID, rack type
Pipetting system	1 steel needle (no tips)	300 µl and 1100 µl carbon tips (conductive)	300 µl and 1100 µl carbon tips (conductive)
Number of tips	–	Up to 3 tip racks for 300 µl or 1100 µl disposable tips	Up to 5 tip racks for 300 µl, or 1100 µl disposable tips
Onboard capacity tips	–	288 tips	480 tips
Computer	External	Internal	External
Interfaces	USB	USB, VGA, LAN	R232
LIS	Ethernet, uni-directional, free definable protocol, manual execution	Ethernet, bi-directional, ASTM & free definable protocol	Ethernet, bi-directional, ASTM & free definable protocol



Hemostasis

HUMAN provides laboratories with integrated testing solutions for Hemostasis, offering Hemostat reagents and HumaClot analyzers, both semi-automated and fully automated to support the economic and accurate assessment of clotting or fibrinolytic parameters.

HUMAN offers a broad range of commonly performed screening parameters for diagnostic testing of blood disorders related to coagulation and fibrinolysis. The assays are being performed to determine the risk of prolonged or excessive bleeding following surgery, childbirth or to determine the risk of a potential thrombotic event. The offer covers liquid and lyophilized reagents for the determination of prothrombin time (PT), thereby investigating the extrinsic pathway and supports the monitoring of patients undergoing oral anticoagulant therapy. HUMAN also provides reagents for the determination of activated partial thromboplastin time (aPTT), a general screening test of the intrinsic pathway (factors: XII, XI, X, IX, VIII, V, II, I) and thrombin time (TT) for the basic screening profile using citrated human plasma.

The offered fibrinogen reagent is a functional assay intended for the quantitative determination of fibrin clot formation (Clauss method) in human plasma to identify fibrinogen defects. Last but not least, HUMAN provides a microparticle enhanced immunologic D-dimer assay for diagnosis of deep vein thrombosis of the leg, pulmonary embolism or certain cancers.





Hemostat Reagents

REF	Format	Unit/Size	Storage	Remark	Sample
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HEMOSTAT THROMBOPLASTIN^{liquid}

Liquid thromboplastin for the determination of prothrombin time (PT)

31012	Complete kit	6 x 2 ml	2...8 °C	Liquid stable rabbit brain extract	
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HEMOSTAT THROMBOPLASTIN-SI

Thromboplastin for the determination of prothrombin time (PT)

31002	Reagent kit	6 x 2 ml	2...8 °C	Lyophilized rabbit brain extract	
31003		6 x 10 ml			

HEMOSTAT aPTT-EL

Activated partial thromboplastin time

33002	Complete kit	6 x 4 ml	2...8 °C	Rabbit brain extract Liquid stable reagent Ellagic acid activator	
33012	aPTT reagent	6 x 4 ml			
33013	aPTT reagent	6 x 10 ml			
33022	CaCl ₂	4 x 30 ml			

HEMOSTAT FIBRINOGEN

Thrombin reagent for the quantitative determination of fibrinogen (Claus method)

32002	Complete kit	5 x 2 ml	2...8 °C	Human thrombin with 100 IU/ml	
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HEMOSTAT THROMBIN TIME

Clotting assay for thrombin time (TT) determination

34002	Reagent kit	3 x 3 ml	2...8 °C		
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HEMOSTAT D-DIMER

Immunoturbidimetric test for quantitative D-dimer determination measured at 405 nm

36002	Complete kit	2 x 1 ml	2...8 °C		
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HEMOSTAT ANTITHROMBIN^{liquid}

Chromogenic Factor Xa assay for quantitative antithrombin

36102	Reagent kit	4 x 3 ml	2...8 °C	Liquid stable reagent	
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Plasma
Citrate



Hemostat Controls and Calibrator

REF	Format	Unit/Size	Storage
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HEMOSTAT CONTROL PLASMA

Lyophilized human plasma for the routine quality control of hemostasis tests

35001	Normal	6 x 1 ml	2...8 °C
35002	Abnormal	6 x 1 ml	

HEMOSTAT D-DIMER CONTROL HIGH/LOW

Lyophilized human plasma enriched with D-dimer

36012	(2 x low, 2 x high)	4 x 1 ml	2...8 °C
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HEMOSTAT CALIBRATOR

Lyophilized human plasma pool for prothrombin time and antithrombin

35500		4 x 1 ml	2...8 °C
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HEMOSTAT ANTITHROMBIN^{liquid}



HEMOSTAT D-DIMER and D-DIMER CONTROL



HumaClot Instruments

Hemostasis

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REF 18680

HumaClot Junior

Compact 1-channel coagulation instrument

- Measurement of 1 sample
- 4 sample incubation positions
- 1 reagent incubation position

Extended family of semi-automated instruments
One concept three instruments:

- TIC²⁺ Technology
- Latest LED technology with reference channel
- Validated applications for HUMAN reagents preprogrammed
- Guided workflow
- Light protection cover with pipetting support
- Durable and maintenance-free
- Closed consumable system with smart card
- Optional external sample barcode reader



REF 15650

HumaClot Duo Plus

Manual 2-channel coagulation instrument

- Simultaneous measurement of 2 samples
- 18 sample incubation positions
- 4 reagent incubation positions (1 stirred)
- Built-in printer
- Optional autopipette with electronic trigger start



REF 15660

HumaClot Quattro

Manual 4-channel coagulation instrument

- Simultaneous measurement of 4 samples
- 16 sample incubation positions
- 4 reagent incubation positions (1 stirred)
- Built-in printer
- Optional autopipette with electronic trigger start

Accessories

REF	Description
19130A*	AutoHumapette 20 – 200 µl
15660/55	Barcode scanner - mini DIN
15651/20	Thermo printer EU 230 VAC
15651/21	Thermo printer US 120 VAC
15651/22	Thermo printer JP 120 VAC
15660/53	Printer cable - mini DIN (external printer)
18250/74*	Battery pack with USB fan (12/24 VDC, 73Wh for 5h operation of HumaClot Duo Plus / Quattro)
18250/73	Solar panel (up to 36 W, for charging of battery pack)
15660/54	USB cable A-B for host connection
15660/56	Y-cable (external printer & barcode reader)

Consumables

REF	Description
15660/10	Cuvettes dispo incl. mixer (5 x 100 pcs)
15660/11	Cuvettes bag incl. mixer (1 x 500 pcs)
15660/12	Cuvettes bag incl. mixer (5 x 500 pcs)
18909/20	Thermal printer paper, external printer (5 pcs)
18144/5	Thermal printer paper, internal printer (5 pcs)

Human Product Catalog 2020



HumaClot Instruments

* Only for HumaClot Duo Plus and Quattro



HumaClot Analyzer

REF 15800

HumaClot Pro

Fully automated coagulation analyzer incl. UPS



- Up to 100 PT/h
- 3 wavelengths: 405 nm, 570 nm, 740 nm
- Complete hemostasis reagents storable onboard
- Multilingual (GB / ES / FR / RU / DE)
- According to HUMAN's plug & run philosophy, validated applications for HUMAN reagents preprogrammed, including D-dimer
- TIC²⁺ Technology
- Integrated PC and touchscreen
- Internal sample barcode reader
- 3 STAT positions



- › Maximum precision by sample mixing
- › Homogenization of reaction mix through stirring
- › Maximum assay measurement flexibility with clotting, chromogenic, immunologic and turbidimetric measurement



HumaClot Pro



Movie

Accessories

REF	Description
15800/50	Stir bars for reagent mixer
15800/60	Inkjet printer USB
15800/53	Adapter reagent cup (1 pc)

Consumables

REF	Description
15800/10	Cuvette rings 6 x 10 x 32 (1,920 tests)
15800/25	Sample cups 4 ml (2 x 250 pcs)
17470/59	Sample cups 2 ml (500 pcs)
15800/20	Washing solution 5 x 15 ml
15800/30	Cleaner 5 x 15 ml
15800/15	Reagent cup 1 ml (100 pcs)
15800/40	Reagent container 5 ml with cap (50 pcs)



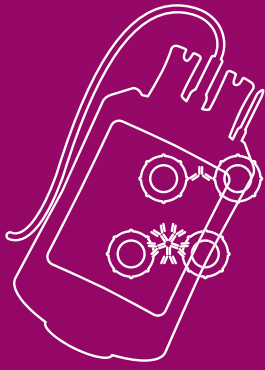
HumaClot from semi-automated to fully-automated at a Glance

Hemostasis

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	HumaClot Junior	HumaClot Duo Plus	HumaClot Quattro	HumaClot Pro
Type	Semi-automated	Semi-automated	Semi-automated	Fully-automated
Channels	1	2	4	2
Wavelengths	405 nm	405 nm	405 nm	405, 570, 740 nm
No. of parameters	15	15	15	50
Preinstalled HUMAN application settings	Prothrombin Time (PT) Activated partial thromboplastin time (aPTT) Thrombin Time (TT) Fibrinogen (FIB) D-Dimer (DD) Antithrombin (AT)			
Sample incubation positions 37 °C	4	18	16	32 incubation positions per cuvette ring
Sample positions	4	18	16	25 (22 + 3 STAT)
Sample mixer	Yes			
Reagent positions	1	4	4	15 reagents 2 wash/clean solution
Reagent stirring bar	No	1 reagent position	1 reagent position	3 reagent positions
Reagent prewarming	Heated reagent position	Heated reagent position	Heated reagent position	Needle heating
Calibration	2 - 9 calibration points	2 - 9 calibration points	2 - 9 calibration points	Up to 7 calibration points incl. auto-dilution
Auto-pipette	No	Optional	Optional	Pipetting unit incl. (automated)
Sample barcode (sample ID)	Optional	Optional	Optional	Built-in
Closed consumables	Yes, by smart card technology			
Battery pack	No	Optional REF 18250/74	Optional REF 18250/74	No



Immunoematology

HUMAN offers a selected line of CE marked monoclonal blood typing reagents as well as reagents for antibody detection / compatibility testing using conventional methods.





Immunohematology Reagents

HumaType reagents for ABO and Rhesus (D) typing are potent reagents with high antigen affinity. They are suited for traditional tube, slide and microplate techniques. HumaType Anti-D (IgM) is the ideal reagent for patient typing, whereas HumaType Anti-D (IgM/IgG) can be used for both patient and donor typing.

REF	Unit/Size	Storage	Remark
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HumaType Anti-A

Monoclonal blood grouping reagent for ABO typing

71012	3 x 10 ml	2...8 °C	For direct agglutination tests (tube, slide, plate)
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HumaType
Anti-B

HumaType Anti-B

Monoclonal blood grouping reagent for ABO typing

71022	3 x 10 ml	2...8 °C	For direct agglutination tests (tube, slide, plate)
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HumaType Anti-A,B

Monoclonal blood grouping reagent for ABO typing

71032	3 x 10 ml	2...8 °C	For direct agglutination tests (tube, slide, plate)
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HumaType Anti-D (IgM)

Monoclonal rhesus typing reagent

71042	3 x 10 ml	2...8 °C	For direct agglutination tests (tube, slide, microplate)
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HumaType
Anti-Human Globulin

HumaType Anti-D (IgM/IgG)

Blended monoclonal rhesus typing reagent

71052	3 x 10 ml	2...8 °C	For direct and indirect agglutination tests (tube, slide, microplate)
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HumaType Anti-Human Globulin

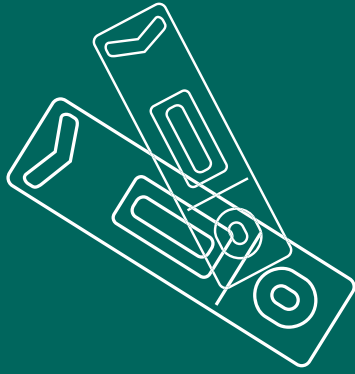
Polyspecific reagent, rabbit, green dyed

71062	3 x 10 ml	2...8 °C	For direct and indirect antiglobulin tests
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HumaType Albumin 22%

Potentiating medium for blood grouping tests

71072	3 x 10 ml	2...8 °C	
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Rapid Screening Tests

HUMAN offers a comprehensive line of rapid screening tests based on different technologies: immunochromatography, latex agglutination and hemagglutination.

Tests are designed and manufactured according to the high European quality standards and provide rapid and accurate results. They are easy to use, require no instrumentation and allow a cost-effective diagnosis.

HUMAN's range covers the needs of our customers worldwide and includes tests to diagnose diseases occurring in countries with both temperate and tropical climates.





Infectious Diseases

The rapid and early diagnosis of infectious diseases is critical for therapy and infection control measures. HUMAN manufactures a broad range of high quality tests, e.g. for the diagnosis of sexually transmitted or mosquito-borne diseases. HUMAN's tests are designed to provide reliable and easy-to-read results within minutes. Many HUMAN rapid tests allow the use of whole blood and are, therefore, ideally suited for remote settings.

REF	Format	Unit/Size	Storage	Specification	Sample
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HEXAGON CHAGAS

Immuno-chromatographic rapid test for antibodies to *Trypanosoma cruzi*

58002	Complete kit	20 tests	2...30 °C	Test device and diluent	WB SERUM EDTA HEP
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HEXAGON CHLAMYDIA

Immuno-chromatographic rapid test for *Chlamydia trachomatis* LPS antigen

58012	Test device	30 tests	2...25 °C		FEMALE
58912	Collection tubes, swabs	60 units			

HEXAGON HCV*

Immuno-chromatographic rapid test for antibodies to hepatitis C virus

58072	Complete kit	40 tests	2...30 °C	Test device and diluent	WB SERUM EDTA HEP CITRATE
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HEXAGON HIV

Immuno-chromatographic rapid test for antibodies to HIV-1 and HIV-2 (3rd generation)

57002P	Complete kit	40 tests	2...30 °C	Test device and diluent	WB SERUM EDTA HEP CITRATE
57004P		100 tests			

HEXAGON H. PYLORI

Immuno-chromatographic rapid test for *H. pylori* IgG, IgM, IgA antibodies (3rd generation)

58022	Complete kit	20 tests	2...30 °C	Test device and diluent	SERUM EDTA HEP CITRATE
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HEXAGON HBsAg*

Immuno-chromatographic 1-step test for hepatitis B surface antigen (HBsAg)

58003	Test strips	3 x 20 tests	2...25 °C	Test strips	SERUM EDTA HEP CITRATE
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* Currently without CE-mark



Whole Blood



Serum



Plasma EDTA



Plasma HEP



Plasma Citrate



Female Swabs



Nasopharyngeal Swabs



REF	Format	Unit/Size	Storage	Specification	Sample
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HEXAGON MALARIA

Immunochromatographic rapid test for malaria Pf/Pan (HRPII / pLDH) antigen

58054	Complete kit	25 tests	1...40 °C	Test device and diluent	
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HEXAGON STREP A

Immunochromatographic rapid test for group A streptococcus antigen

58062	Complete kit	20 tests	2...25 °C	Test device, extraction solutions, pipette and extraction tube	
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HEXAGON SYPHILIS

Immunochromatographic rapid test for *T. pallidum* IgG, IgM, IgA antibodies (3rd generation)

58042	Complete kit	20 tests	2...30 °C	Test device and diluent	
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HEXAGON TB

Immunochromatographic rapid test for *M. tuberculosis* IgG, IgM, IgA antibodies

58032	Complete kit	20 tests	4...30 °C	Test device and diluent	
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HUMATEX Toxo*

Latex agglutination slide test for antibodies to *Toxoplasma gondii*

50023	Complete kit	2.5 ml	2...8 °C	Test device, pipette and diluent	
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IM Quick Test

Hemagglutination slide test for heterophilic antibodies associated with infectious mononucleosis

40039	Complete kit	20 tests	2...8 °C		
40038		40 tests			

SYPHILIS RPR Test

Rapid plasma reagin charcoal enhanced flocculation test for reagin antibodies

50001	Complete kit	100 tests	2...8 °C		
50002		500 tests			
50016	Economic kit	500 tests		Reduced accessories	



Infectious Diseases

REF	Format	Unit/Size	Storage	Specification	Sample
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SYPHILIS TPHA liquid*

Hemagglutination test for antibodies to *Treponema pallidum*

50101	Complete kit	100 tests	2...8 °C		SERUM
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HUMATEX FEBRILE ANTIGENS

Multiscreening kit, agglutination slide and tube test for qualitative and semi-quantitative determination of antibodies to *Salmonella typhi* H, *Salmonella typhi* O, *Salmonella paratyphi* AH, *Salmonella paratyphi* BH, *Brucella abortus*, *Proteus* OX 19 including positive and negative controls

50201	Complete kit	6 x 100 tests	2...8 °C	Multiple	SERUM
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SALMONELLA KIT

Agglutination slide and tube test for qualitative and semi-quantitative determination of antibodies against *Salmonella typhi* H, *Salmonella typhi* O, *Salmonella paratyphi* AH, *Salmonella paratyphi* AO, *Salmonella paratyphi* BH, *Salmonella paratyphi* BO, *Salmonella paratyphi* CH, *Salmonella paratyphi* CO

50301	Antigen kit	8 x 100 tests	2...8 °C	Multiple	SERUM
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INDIVIDUAL FEBRILE ANTIGENS

Agglutination slide and tube tests for qualitative and semi-quantitative determination of antibodies to febrile antigens and controls

50271	<i>Salmonella typhi</i> H	8 x 100 tests	2...8 °C	Antigen kit	SERUM
50281	<i>Salmonella typhi</i> O				
50211	<i>Salmonella paratyphi</i> AH				
50221	<i>Salmonella paratyphi</i> AO				
50231	<i>Salmonella paratyphi</i> BH				
50241	<i>Salmonella paratyphi</i> BO				
50251	<i>Salmonella paratyphi</i> CH				
50261	<i>Salmonella paratyphi</i> CO				
50291	<i>Brucella abortus</i>				
50200	Control PC/NC	2 x 2 ml			

* Planned availability end of Q4 2019



Whole Blood



Serum



Plasma EDTA



Plasma HEP



Plasma Citrate



Urine



Pregnancy

Hexagon and HumaPreg pregnancy tests feature a sensitivity of at least 25 IU/l hCG and are available in different test formats: single sealed cassette and strip tests.

REF	Format	Unit/Size	Storage	Specification	Sample
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FERTITEX MONO

Direct pregnancy latex slide test

60022	Complete kit	100 tests	2...8 °C		
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HEXAGON hCG 1-Step^{Urine}

Immunochromatographic pregnancy test urine

68902	Test strips	60 tests	4...30 °C	Test strips (6 mm) Single sealed Detection limit: 25 IU/l hCG	
68932		150 tests		Test strips, slim line (4 mm) Single sealed Detection limit: 25 IU/l hCG	

HUMAPREG^{Urine}

Immunochromatographic pregnancy test for urine

68004	Complete kit	40 tests	4...30 °C	Test devices Single sealed with transfer pipettes. Detection limit 25 IU/l hCG	
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Cardiac Marker

Biochemical marker useful in the management of acute myocardial infarction (AMI) or myocarditis. The rapid test provides an aid to early diagnosis of AMI and therapeutic monitoring.

REF	Format	Unit/Size	Storage	Specification	Sample
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HEXAGON TROPONIN*

Immunochromatographic 1-step test for cardiac troponin I (cTnI)

27032P	Complete kit	20 tests	2...25 °C	Detection limit 0.5 ng/ml	
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Tumor Marker

Rapid tests used in the context of gastrointestinal disorders, colorectal cancer or prostate cancer screening.

REF	Format	Unit/Size	Storage	Specification	Sample
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HEXAGON OBSCREEN

Guaiac test for occult blood screening

28220	Complete kit	30 x 3 tests	15...25 °C	2 ml blood / 100 g stool	
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HEXAGON OBTI

Immunochromatographic 1-step test for occult blood in stool

28009	Complete kit	24 tests	2...30 °C	Specific for human hemoglobin, 0.05 – 2000 µg/ml human Hb in transport medium	
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HEXAGON PSA

Immunochromatographic rapid test for prostate specific antigen (PSA)

28032	Complete kit	20 tests	2...30 °C	Detection limit 4 ng/ml	
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Allergy

Test for the detection of total IgE as an aid in the diagnosis of allergies.

REF	Format	Unit/Size	Storage	Specification	Sample
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HEXAGON IGE

Immunochromatographic 1-step test for total IgE

29012	Complete kit	20 tests	2...25 °C	Detection limit ~150 IU/l	
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Rheumatology

Whenever there is a suspicion of autoimmune rheumatic diseases: latex agglutination tests provide qualitative or semi-quantitative results in just two minutes – ideal for a first quick overview.

REF	Format	Unit/Size	Storage	Specification	Sample
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SLE LATEX TEST

Latex slide test for non-diluted serum

40031	Complete kit	20 tests	2...8 °C		
40030		50 tests			

HumaTex ASO

Latex slide test for non-diluted serum

40062	Complete kit	40 tests	2...8 °C	200 IU/l serum	
40063		100 tests			
40060	Latex reagent	100 tests			

see also ASO immunoturbidimetric test

HumaTex CRP

Latex slide test for non-diluted serum

40042	Complete kit	40 tests	2...8 °C	6 mg/l serum	
40043		100 tests			
40040	Latex reagent	100 tests			

see also CRP immunoturbidimetric test

HumaTex RF

Latex slide test for non-diluted serum

40052	Complete kit	40 tests	2...8 °C	12 IU/l serum	
40053		100 tests			
40050	Latex reagent	100 tests			

see also RF immunoturbidimetric test

GLYCINE-NACL Buffer

Dilution buffer for latex agglutination tests HumaTex SLE, ASO, CRP and RF

40037		100 ml	2...25 °C		
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Urinalysis

HUMAN offers an extensive line of urine test strips (for visual or automated reading) and a system for low to medium throughput laboratories. Test strips ranging from 1 parameter (glucose) up to 13 parameter strips (including microalbumin plus creatinine) are available.





Combina Strips

HUMAN offers an extensive line of urine test strips for visual or automated reading.

- Urine test strips with 1 – 13 parameters
- Microalbumin and creatinine on 13 parameter strip

REF	Parameters	Unit/Size	Storage	Sample
COMBINA GLUCOSE				
Urine test strips				
22092	Glucose	50 tests	2...30 °C	
COMBINA 2				
Urine test strips				
22022	Glucose, ketones	50 tests	2...30 °C	
COMBINA 3				
Urine test strips				
22032	Glucose, pH, protein	50 tests	2...30 °C	
COMBINA 9SG				
Urine test strips				
22002	Glucose, ketones, pH, protein, nitrite, specific gravity, bilirubin, urobilinogen, blood	50 tests	2...30 °C	
COMBINA 10 M				
Urine test strips				
22102	Glucose, ketones, pH, protein, nitrite, specific gravity, bilirubin, urobilinogen, blood, leukocytes	50 tests	2...30 °C	
COMBINA 11 S				
Urine test strips				
23111	Glucose, ketones, pH, protein, nitrite, specific gravity, bilirubin, urobilinogen, blood, leukocytes, ascorbic acid	150 tests	2...30 °C	
COMBINA 13				
Urine test strips				
22132	Glucose, ketones, pH, protein, nitrite, specific gravity, bilirubin, urobilinogen, blood, leukocytes, ascorbic acid, microalbumin, creatinine	100 tests	2...30 °C	



Urine



Combilyzer System



REF	17600
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Combilyzer¹³

System for small to medium volume laboratories

- System solution for Combina 13 strips
- Photoelectric colorimetry test principle
- Throughput: 60 samples/hour (standard mode)
120 samples/hour (fast mode)
- Calculates albumin-to-creatinine ratio
- Flags for abnormal results
- Onboard storage of 1,000 results
- Conventional, arbitrary and SI units
- Barcode reader for Combina 13 strips and samples
- Built-in thermal printer
- Serial port for unidirectional connection with LIS port for external printer
- Onboard service & system diagnose tools

Consumables

REF	Description
22132	Combina 13 (100 tests)
18144/5	Printing paper (5 pcs)



REF	22132
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COMBINA 13

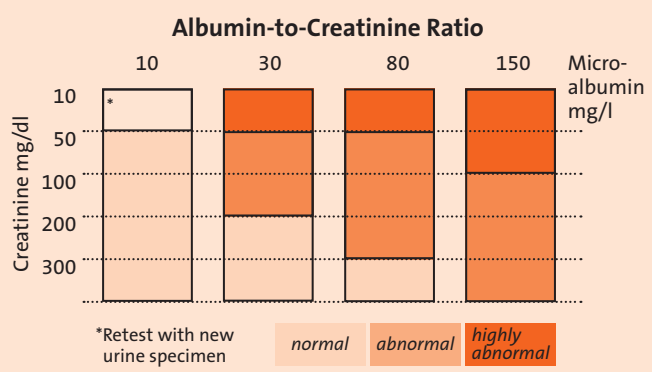
Comprehensive urinary profile including microalbumin and creatinine

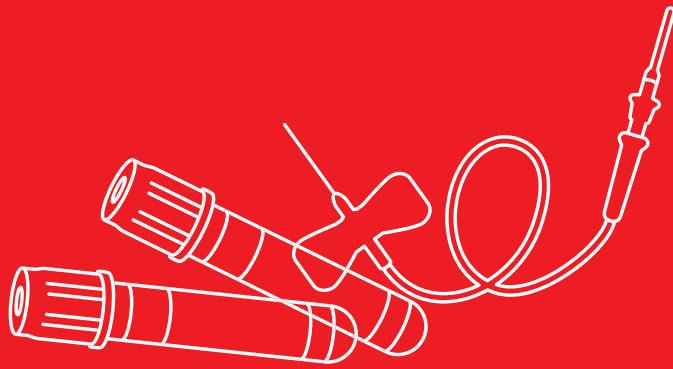
- Strip for testing ascorbic acid, bilirubin, blood, creatinine, glucose, ketones, leukocytes, microalbumin, nitrite, pH, protein, specific gravity, urobilinogen
- Especially suited for first time urine testing – no need for timed collection
- Albumin-to-creatinine ratio automatically calculated by Combilyzer¹³
- For visual and automated reading with Combilyzer¹³
- Semi-quantitative visual reading for all parameters at 60 seconds

Risk Factor Albumin-to-Creatinine Ratio

Urinary excretion of microalbumin indicates kidney damage – often found in patients with diabetes and hypertension – and is a recognized risk factor for progression of kidney and cardiovascular disease.

Parallel measurement of creatinine and albumin to diagnose microalbuminuria makes the collection of 24-hour urine samples obsolete, as the albumin-to-creatinine ratio allows to correct variations in diuresis.





Blood Collection

HUMAN offers a broad range of high quality CE marked sterile blood collection tubes.

In the early days of venous blood collection, glass tubes were the only collection container available. Today, the clinical performance of plastic (PET) blood collection tubes is equivalent or even better compared to glass tubes.

The advantages of PET blood collection are obvious:

- Unbreakable, improving the safety of laboratory staff
- Low in weight and easier to transport.





HumaTube Blood Collection Vacuum Tubes

REF	Format	Draw Volume	Size	Color Code	Storage
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HumaTube No ADDITIVE (Z)

Serum tube – Additive: no

73005/12*	13 x 75 mm	5 ml	12 x 100 tubes, PET	Red	4...30 °C
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HumaTube SERUM C/A (Z)

Serum tube – Additive: clot activator



SERUM No Additive

73023/12*	13 x 75 mm	5 ml	12 x 100 tubes, PET	Red	4...30 °C
73020/12*	13 x 100 mm	7 ml			



SERUM Clot Activator (C/A)

HumaTube SERUM GEL-C/A (Z)

Serum tube – Additive: gel + clot activator

73030/12*	13 x 100 mm	5 ml	12 x 100 tubes, PET	Yellow	4...30 °C
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SERUM Gel-Clot Activator (C/A)

NEW

HumaTube K2-EDTA (K2E)

Whole blood tube – Additive: di-potassium EDTA

73032/12	13 x 75 mm	3 ml	12 x 100 tubes, PET	Lavender	4...30 °C
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Whole Blood EDTA

HumaTube K3-EDTA (K3E)

Whole blood tube – Additive: tri-potassium EDTA

73040/12	13 x 75 mm	3 ml	12 x 100 tubes, PET	Lavender	4...30 °C
73045/12*	13 x 100 mm	7 ml			



Plasma Li-HEPARIN

HumaTube Li-HEPARIN (LH)

Plasma tube – Additive: lithium heparin



Plasma Na-CITRATE

73050/12	13 x 75 mm	3 ml	12 x 100 tubes, PET	Green	4...30 °C
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Plasma GLUCOSE

HumaTube Na-CITRATE 3.2% (9NC)

Plasma tube - Additive: 3.2% sodium citrate

73060/12	13 x 75 mm	2.7 ml	48 x 25 tubes, PET	Light blue	4...30 °C
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HumaTube GLUCOSE (FH)

Plasma tube – Additive: sodium heparin + sodium fluoride

73070/12	13 x 75 mm	2 ml	12 x 100 tubes, PET	Grey	4...30 °C
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Sunway ESR Tubes

ESR Vacuum tube, 3.8% Sodium Citrate

15007/10**	8 x 120 mm	1.28 ml	12 x 100 tubes, glass	Black	4...25 °C
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Sunway ESR Rack

Rack for 10 ESR tubes with ESR reading scale

15011**	10 tube positions				4...25 °C
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* Can be used at any altitude ** Distributed by HUMAN



Microscopes

The HumaScope line constitutes a new generation of binocular laboratory microscopes in modern ergonomic design and latest LED technology. Developed for use in laboratories, doctor's offices, education and research.





HumaScopes with LED Illumination



REF 14400

HumaScope Light^{LED}

Binocular laboratory LED illuminated microscope

- Achromatic objectives (antifungal coated) 4x, 10x, 40x and 100x oil
- Rechargeable battery – 5 days independent from constant power supply
- LED illumination, no bulb replacement required
- Especially for health care in remote areas, because of battery option



REF 14500

HumaScope Classic^{LED}

Binocular laboratory LED illuminated microscope

- Semi-plan objectives (antifungal coated) 4x, 10x, 40x and 100x oil
- Compensation free Siedentopf head, inward 4-position objective revolver
- Koehler illumination
- Rechargeable battery – 5 days independent from constant power supply
- LED illumination, no bulb replacement required



REF 14600

HumaScope Advanced^{LED}

Binocular laboratory LED illuminated microscope

- Plan achromatic objectives (antifungal coated) 4x, 10x, 40x and 100x oil
- Compensation free Siedentopf head, inward 5-position objective revolver
- Koehler illumination
- LED illumination, no bulb replacement required
- Rechargeable battery – 5 days independent from constant power supply

REF 14601

HumaScope Advanced^{LED} Trinocular Complete set

- HumaScope Advanced^{LED} (Binocular) + trinocular head



REF 14700

HumaScope Premium^{LED} Binocular laboratory LED illuminated microscope

- Infinity corrected plan achromatic objectives (antifungal coated)
4x, 10x, 40x and 100x oil
- Compensation free Siedentopf head, inward 5-position objective revolver
- Koehler illumination
- Extra strong LED illumination, no bulb replacement required
- One finger focusing



HumaScope Fluo^{LED} LED fluorescence microscope with trinocular head

- Infinity corrected plan achromatic objectives (antifungal coated)
4x, 10x, 40x and 100x oil
- Compensation free Siedentopf head, inward 5-position objective revolver
- Koehler illumination
- Extra strong LED illumination, no bulb replacement required
- Optional – up to 4 fluorescence channels available
- Optional – rechargeable batteries

REF 14701

HumaScope Premium^{LED} Trinocular Complete set

- HumaScope Premium^{LED} (Binocular) + trinocular head



HumaScope Fluo^{LED}



Movie

REF	Features
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HumaScope Fluo^{LED} State-of-the-art optics

14800	2-channel LED fluorescence (blue, green)
14804	2-channel LED fluorescence (blue, green) with rechargeable batteries
14801	3-channel LED fluorescence (blue, green, UV)
14802	3-channel LED fluorescence (blue, green, violet)
14803	4-channel LED fluorescence (blue, green, UV, violet)



HumaScopes at a Glance



	HumaScope Light ^{LED}	HumaScope Classic ^{LED}
Technical data	REF 14400	REF 14500
Light source	LED 3.6 V, 0.3 W	LED 3.6 V, 0.3 W
Head	Binocular Compensation free 360° rotatable 30° inclination Left side diopter adjustments ±5	Binocular Compensation free 360° rotatable 30° inclination Left side diopter adjustments ±5
Eyepiece	Widefield, 10x / 18 mm Diopter adjustment	Widefield, 10x / 18 mm Diopter adjustment
Objectives	Achromatic 4x, 10x, 40x, 100x (Oil immersion) 40, 100x spring loaded	Semi-plan achromatic 4x, 10x, 40x, 100x (Oil immersion) 40, 100x spring loaded
Revolver	4-positions forward	4-positions reverse
Stage	Size: 115 x 125 mm x / y movement: 50 x 20 mm	Size: 125 x 135 mm x / y movement: 75 x 35 mm
Focus system	Coaxial course / fine focus gear transmission with tension adjustable knob and limit stopper system	Coaxial course / fine focus gear transmission with tension adjustable knob and up-stop knob
Condenser	Abbe condenser 1.25 N.A. Rack and pinion adjustment Height adjustable Filter holder	Abbe condenser 1.25 N.A. Rack and pinion adjustment Height adjustable Filter holder
Power supply	110 – 230 V, 50 – 60 Hz Rechargeable battery 3 x AA 1.2 V 1,800 mAh	110 – 230 V, 50 – 60 Hz Rechargeable battery 3 x AA 1.2 V 1,800 mAh



HumaScope Advanced ^{LED}	HumaScope Premium ^{LED}	HumaScope Fluor ^{LED}
REF 14600 REF 14601 with trinocular head	REF 14700 REF 14701 with trinocular head	REF 14800, 2-channel LED fluorescence (blue, green) REF 14804 with rechargeable batteries REF 14801, 3-channel fluorescence (blue, green, UV) REF 14802, 3-channel fluorescence (blue, green, violet) REF 14803, 4-channel fluorescence (blue, green, UV, violet)
LED 3.6 V, 0.3 W	LED 3.6 V, 3.0 W	Transmitted light white LED, 3 W Adjustable brightness Fluorescence illumination: LED 3.6 V, 3 W
Binocular Compensation free 360° rotatable 30° inclination Left side diopter adjustments ±5	Binocular Compensation free 360° rotatable 30° inclination Left side diopter adjustments ±5	Trinocular Compensation free 360° rotatable 30° inclination Interpupillary distance 53 – 75 mm Left side diopter adjustments ±5
Widefield, 10x / 18 mm Diopter adjustment	Widefield, 10x / 22 mm Diopter adjustment	Widefield, 10x / 22 mm Diopter adjustment
Plan achromatic 4x, 10x, 40x, 100x (Oil immersion) 40, 100x spring loaded	Infinity-plan achromatic 4x, 10x, 40x, 100x (Oil immersion) 40, 100x spring loaded	Infinity-plan achromatic 4x / 0.10; 10x / 0.25; 40x / 0.85 FL; 100x / 1.25 Oil 40x & 100x spring loaded Parfocal, antifungal treated
5-positions reverse	5-positions reverse	5-positions reverse
Size: 125 x 135 mm x / y movement: 75 x 35 mm	Size: 210 x 140 mm x / y movement: 75 x 50 mm	Size: 210 x 140 mm x / y movement: 75 x 50 mm
Coaxial course / fine focus gear transmission with tension adjustable knob and up-stop knob	Coaxial course / fine focus gear transmission with tension adjustable knob and up-stop knob	Coaxial course / fine focus gear transmis- sion with tension adjustable knob and up limit stopper system 4 mm movement per full turn, 2 µm increased
Abbe condenser 1.25 N.A. Rack and pinion adjustment Height adjustable Filter holder	Abbe condenser 1.25 N.A. Rack and pinion adjustment Height adjustable Filter holder	Abbe condenser 1.25 N.A. Rack and pinion adjustment Height adjustable Filter holder
110 – 230 V, 50 – 60 Hz Rechargeable battery 3 x AA 1.2 V 1,800 mAh	110 – 230 V, 50 – 60 Hz	110 – 230 V, 50 – 60 Hz Rechargeable battery 8 x AA 1.2 V 1,800 mAh only for REF 14804



HumaScope Stereo Microscopes



REF 14900

HumaScope Stereo Binocular stereo microscope

- Latest LED illumination technique
- With reflected and transmitted illumination
- Left/right diopter adjustment ± 5
- Magnification 7x – 45x
- Excellent optics



REF 14901

HumaScope Stereo Trinocular Complete set with trinocular head*

Accessories

REF	Description
14900/1	Eyepiece WF10x (22 mm)
14900/2	Eyepiece WF15x (15 mm)
14900/3	Eyepiece WF20x (12 mm)
14900/4	Eyepiece WF25x (9 mm)
14900/5	Reticle eyepiece WF10x (20 mm) 0,1 mm/Div1
14900/6	Objective 0.5x W.D. 137 mm
14900/7	Objective 0.75x W.D. 103 mm
14900/9	Objective 1.5x W.D. 48 mm
14900/10	Objective 2x W.D. 29 mm
14900/11	Trinocular adapter 1x for CCD camera
14900/12	Trinocular adapter 0.5x for CCD camera

* C-Mount adapter for camera operation necessary



Accessories for LED Microscopes

REF	Description	Fluo	Premium	Advanced	Classic	Light
14000/72	Blue filter	X	X	X	X	X
14000/54	C-mount adapter 0.4x for trinocular head	X	X	X	X	
14000/55	C-mount adapter 1x for trinocular head		X	X	X	
14000/80	C-mount adapter 0.5x for trinocular	X	X	X	X	
16160	Cleaner set (lens cleaning fluid, lens cleaning rods, lens cleaning tissues, air duster microfiber cloth, dust bellow)	X	X	X	X	X
14000/52	Dark field condenser		X	X	X	X
14000/53	Dark field condenser oil	X	X	X	X	X
14000/16	Eyepiece 10x 18 mm view field					X
14000/17	Eyepiece 10x 18 mm view field			X	X	
14000/18	Eyepiece 10x 20 mm view field		X			
14000/19	Eyepiece 16x 11 mm view field		X	X	X	X
14000/20	Eyepiece 20x 11 mm view field		X	X	X	
14000/133	Eyepiece 20x 22 mm view field	X				
14000/205	Eyepiece adapter 0.5x	X	X	X	X	X
14000/125	Eyepiece pointer achromatic 10x 18 mm					X
14000/128	Eyepiece pointer achromatic 16x 11 mm			X	X	X
14000/131	Eyepiece pointer fluo 10x 22 mm	X				
14000/132	Eyepiece pointer fluo 15x 22 mm	X				
14000/127	Eyepiece pointer infinity 10x 20 mm		X			
14000/130	Eyepiece pointer infinity 10x 22 mm	X				
14000/21	Eyepiece micrometer 10 mm with 100 division for 18 mm view field			X	X	X
14000/22	Eyepiece micrometer 10 mm with 100 division for 20 mm view field		X			
14000/126	Eyepiece pointer plan achromatic 10x 18 mm			X	X	
14000/73	Frosted filter	X	X	X	X	X
14000/74	Green filter	X	X	X	X	X
14000/71	Mirror set			X	X	X
14000/10	Monocular head			X	X	
14000/23	Objective achromatic 4x					X
14000/24	Objective achromatic 10x					X
14000/30	Objective achromatic 20x					X
14000/25	Objective achromatic 40x					X
14000/26	Objective achromatic 60x					X
14000/27	Objective achromatic 100x					X
14000/32	Objective achromatic 60x				X	
14000/34	Objective semi plan 4x				X	
14000/35	Objective semi plan 10x				X	

Microscopes

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Human Product Catalog 2020



Accessories for LED Microscopes

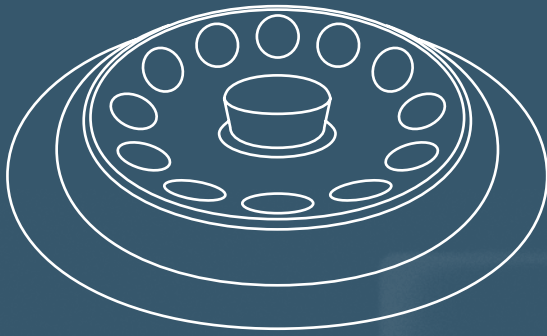
REF	Description	Fluo	Premium	Advanced	Classic	Light
14000/36	Objective semi plan 20x				X	
14000/37	Objective semi plan 40x				X	
14000/38	Objective semi plan 100x				X	
14000/39	Objective plan 4x			X	X	
14000/40	Objective plan 10x			X	X	
14000/41	Objective plan 20x			X	X	
14000/42	Objective plan 40x			X	X	
14000/43	Objective plan 60x			X	X	
14000/44	Objective plan 100x			X	X	
14000/45	Objective plan infinity 4x	X	X			
14000/46	Objective plan infinity 10x	X	X			
14000/47	Objective plan infinity 20x	X	X			
14000/48	Objective plan infinity 40x		X			
14000/140	Objective plan infinity 60x	X	X			
14000/49	Objective plan infinity 100x	X	X			
14000/75	Oil	X	X	X	X	X
14000/82	Rubber eyeguard (set of 2)		X	X	X	X
14000/59	Simple achromatic phase contrast kit			X	X	X
14000/58	Simple polarisation kit		X	X	X	
14000/57	Simple polarisation kit					X
14000/68	Stage micrometer 1 mm / 100 division	X	X	X	X	X
14000/83	Transport box (plastic)			X	X	
14000/84	Transport box (plastic, light)					X
14000/13	Trinocular head			X	X	
14000/15	Trinocular infinity head		X			
14000/60	Turret achromatic phase contrast kit			X	X	
14000/62	Turret plan infinity phase contrast kit	X	X			
14000/61	Turret plan phase contrast kit			X	X	
14000/81	Yellow filter	X	X	X	X	X

Digital cameras for HumaScope Line (distributed by HUMAN)

REF	Description	Fluo	Premium	Advanced	Classic	Light
14000/866	Digital camera (USB 2) 5 megapixel	X	X	X	X	X
14000/867	Digital camera (USB 3) 5 megapixel	X	X	X	X	X
14000/877	Digital camera (USB 2) 10 megapixel	X	X	X	X	X
14000/878	Digital camera (USB 3) 10 megapixel	X	X	X	X	X
14000/210	Digital camera (HDMI) 0.78 megapixel*	X	X	X	X	X

For operation with a trinocular, a C-mount adapter is necessary.

* The camera has a software embedded, can be directly connected with your display and controlled by USB mouse. The pictures can be saved to the SD storage device.



Laboratory Equipment

HUMAN's line of laboratory equipment comprises of a broad range of high quality products with a modern design for all kinds of laboratories. Robust laboratory equipment with ease of use at an attractive price in HUMAN quality.





Pipettes

Full range of precise liquid handling with HumaPette Premium Line (fully autoclavable) and HumaPette Smart Line.



HumaPette SMART LINE

Reliability in your hand

Pipetting is often the largest source of errors in the lab. Having confidence in your measurements is a key to good science and results. The HumaPette Smart Line fulfills all requirements of high quality at a superior price/performance ratio. If you need state-of-the-art, ergonomically designed and highly accurate pipettes, then the HumaPette Smart-Line is your perfect option!

Fulfills all criteria of a pipette for routine use

- Convenient plunger position
- Low force to push plunger
- Easy set and read display
- Feedback from button operation
- Simple calibration

HumaPette Smart LINE Fixed volume pipettes

REF	Volume	Accuracy	Precision CV %	Pipette Tips
19500L	5 µl	1.3 %	1.2 %	19320/20
19505L	10 µl	0.8 %	0.8 %	19320/20
19510L	20 µl	0.6 %	0.5 %	19910/20
19515L	25 µl	0.5 %	0.3 %	19910/20
19520L	50 µl	0.5 %	0.3 %	19910/20
19525L	100 µl	0.5 %	0.3 %	19910/20
19530L	200 µl	0.4 %	0.2 %	19910/20
19535L	250 µl	0.4 %	0.2 %	19920/40
19540L	500 µl	0.3 %	0.2 %	19920/40
19545L	1000 µl	0.3 %	0.2 %	19920/40

Pipette Tips for HumaPette SMART LINE and PREMIUM LINE

REF	Description
19320/20	0.5 – 20 µl, 1 x 1000 tips 'crystal'
19910/20	2 – 200 µl, 10 x 1000 tips 'yellow'
19920/40	50 – 1000 µl, 10 x 500 tips 'blue'
19150/10	0.5 – 5 ml, 200 tips/bag 'white'
19160/10	1 – 10 ml, 10 x 100 tips 'white'
19320/10	5 – 300 µl, 1000 tips/bag for HumaPette Premium 8-Channel

Adjustable pipettes

REF	Volume	Accuracy	Precision CV %	Pipette Tips
19110L	0.5 – 10 µl	1.0 %	0.8 %	19320/20
19120L	5 – 50 µl	0.6 %	0.3 %	19910/20
19125L	10 – 100 µl	0.8 %	0.15 %	19910/20
19130L	20 – 200 µl	0.6 %	0.15 %	19910/20
19140L	100 – 1000 µl	0.6 %	0.2 %	19920/40
19150L	1000 – 5000 µl	0.5 %	0.15 %	19150/10

REF 19160L

HumaPette Linear Stand

For HumaPette Smart-Line and Premium Line





HumaPette PREMIUM LINE

Fully autoclavable pipettes (fully demountable)

The new HumaPette Premium Line stands out for:

- Modern ergonomic design
- Effortless one-hand operation for right- and left-handed users
- CE marked IVD, highest quality „Made in Germany“ with a QC certificate for each pipette
- Fully autoclavable (20 min at 121 °C)
- Tool-free maintenance
- Precision you can rely on

HumaPette PREMIUM LINE Fixed volume pipettes

REF	Volume	Accuracy	Precision CV %	Pipette Tips
19505P	10 µl	≤ 1.0 %	≤ 0.5 %	19320/20
19510P	20 µl	≤ 0.8 %	≤ 0.4 %	19320/20
19515P	25 µl	≤ 0.8 %	≤ 0.4 %	19910/20
19520P	50 µl	≤ 0.8 %	≤ 0.4 %	19910/20
19525P	100 µl	≤ 0.6 %	≤ 0.2 %	19910/20
19530P	200 µl	≤ 0.6 %	0.2 %	19910/20
19540P	500 µl	≤ 0.6 %	0.2 %	19920/40
19545P	1000 µl	≤ 0.6 %	0.2 %	19920/40

Digital adjustable pipettes

REF	Volume	Accuracy	Precision CV %	Pipette Tips
19110P	0.5 – 10 µl	≤ 1.0 %	≤ 0.5 %	19320/20
19120P	2 – 20 µl	≤ 0.8 %	≤ 0.4 %	19320/20
19125P	10 – 100 µl	≤ 0.6 %	≤ 0.2 %	19910/20
19130P	20 – 200 µl	≤ 0.6 %	≤ 0.2 %	19910/20
19140P	100 – 1000 µl	≤ 0.6 %	≤ 0.2 %	19920/40
19150P	500 – 5000 µl	≤ 0.6 %	≤ 0.2 %	19150/10
19160P	1 – 10 ml	≤ 0.6 %	≤ 0.2 %	19160/10

HumaPette PREMIUM Starter kit / Digital adjustable pipettes

REF	
19550P	1 x 0.5 – 10 µl / 10 – 100 µl / 100 – 1000 µl

HumaPette PREMIUM 8-Channel

REF	Volume	Accuracy	Precision CV %	Pipette Tips
19320P	5 – 50 µl	≤ 0.8 %	≤ 0.4 %	19910/20
19330P	30 – 300 µl	≤ 0.6 %	≤ 0.3 %	19320/10



HumaPette PREMIUM Starter Kit



HumaPette PREMIUM 8-Channel



Mixer



HumaTwist

Vortex mixer

Versatility at its best

- Continuous and touch operation
- Adjustable speed 0 – 2,500 rpm
- Reduced vibration by specially designed silicone absorber
- Steel base with ultra high vibration damping

Ordering Information HumaTwist

REF	Voltage
17175	(230 VAC/50 Hz), EU 2 pin plug (CEE 7/7)
17176	(230 VAC/60 Hz), UK 3 pin plug (BS 1363)
17177*	(110 VAC/50 Hz), US 3 pin plug (NEMA 5-15)
17178*	(110 VAC/60 Hz), US 3 pin plug (NEMA 5-15)

Accessories HumaTwist

REF	Description
17175/5	100 mm plate attachment with rubber pad
17175/6**	Holder for 48 test tubes (6 mm)
17175/7**	Holder for 18 test tubes (10 mm)
17175/8**	Holder for 12 test tubes (12 mm)
17175/9**	Holder for 8 test tubes (16 mm)
17175/10**	Holder for 8 test tubes (20 mm)



REF 14570

HumaRock

Rocking shaker

- Tilt angle $\pm 7^\circ$
- Up to 80 rpm
- Universal plug (EU, UK, US)
- Variety of plates
- Delivered without attachment

Accessories HumaRock

REF	Description
14570/10	Universal attachment with 3 bars
14570/12	Lengthways roller attachment
14570/14	Bar universal attachment, black
14570/20	Work plate line immunoassay



REF 15460

HumaRoll

Tube roller

- Adjustable speed up to 70 rpm
- Amplitude of 24 mm
- Capacity: 5 lines 280 mm length
- Universal IEC power connector (EU plug)

* Increased delivery time or order 220 V version with transformer REF 18970

** 17175/5 required



Centrifuges

Benchtop centrifuges with maintenance-free induction motors from small to medium sized capacity.



HuMax HCT

Hematocrit and microliter benchtop centrifuge

- Maximum speed/RCF: 14,000 rpm/18,624 x g
- Maximum capacity: 24 x 2 ml (fix angle rotor)
- Delivered with hematocrit rotor for 24 hematocrit capillary tubes
- Programmable microprocessor controlled system
- Digital display for speed and time
- Timer: 30 sec – 99 min and hold position
- Maintenance-free brushless induction motor

Consumables (distributed by HUMAN)

REF	Description
749510	Hematocrit sealing compound 10 plates
749321	Micro hematocrit tubes 10 x 100 pcs
749311	Micro hematocrit tubes Na-hep 10 x 100 pcs

Ordering Information HuMax HCT

REF	Voltage
15500	230 VAC EU plug
15500/110*	110 VAC US plug



REF	15450

HuMax 3K

Small capacity benchtop centrifuge

- Maximum speed/RCF: 4,500 rpm, 2,490 x g
- Maximum capacity: 8 x 15 ml or 12 x 10 ml
- Programmable microprocessor control system
- Digital display for speed and time
- Timer: 30 sec – 99 min and hold position
- Maintenance-free brushless induction motor
- Delivered with angle rotor
- Delivered with \varnothing 15.6 mm short & long adaptors



Centrifuges



HuMax 4K

Small capacity benchtop centrifuge

- Maximum speed/RCF: 5,000 rpm, 2,822 x g
- Maximum capacity: 12 x 15 ml
- Programmable microprocessor control system
- Digital display for speed and time
- Timer: 1 – 99 min and hold position
- Maintenance-free brushless induction motor
- Delivered with angle rotor 12 x 15 ml

Ordering Information HuMax 4K

REF	Voltage
15200/2	230 VAC
15200/1*	110 VAC



HuMax 5K

Medium capacity benchtop centrifuge

- Maximum speed/RCF: 4,100 rpm, 2,819 x g
- Maximum capacity: angle rotor 16 x 15 ml
swing-out rotor 4 x 100 ml
- Programmable microprocessor control system
- Digital display for speed and time
- Timer: 1 – 99 min and hold position
- Maintenance-free brushless induction motor
- Imbalance detection
- Delivered without rotor

Ordering Information HuMax 5K

REF	Description
15300/2	230 VAC
15300/1*	110 VAC

* Increased delivery time or order 220 V version with transformer REF 18970



REF 17160

HuMax 14K

Multipurpose high-speed centrifuge

- Maximum speed/RCF: 14,000 rpm, 18,405 x g
- Maximum capacity: 4 x 200 ml (swing-out rotor); 24 x 2 ml (angle rotor)
- Electronic imbalance detection
- Timer: 1 – 99 min and hold position
- Programmable speed, acceleration and braking rates
- Memory for 10 programs
- Maintenance-free brushless induction motor
- Delivered without rotor (available rotors are listed on page 113)



HuMax Micro

Micro benchtop centrifuge

- Fixed speed/RCF: 7,000 rpm/2,680 x g
- Maximum capacity: 8 x 2 ml / 16 x 0.2 ml
- Delivered with rotor & adapters



Ordering Information HuMax Micro

REF	Description
15150	110 – 230 VAC EU plug
15150/110	110 – 230 VAC US plug



HuMax Centrifuges at a Glance



	HuMax Micro	HuMax HCT	HuMax 3K
Max speed	7,000 rpm	14,000 rpm rotor REF 15502 12,000 rpm rotor REF 15501	4,500 rpm
RCF	2,680 x g	18,624 x g rotor REF 15502 13,620 x g rotor REF 15501	2,490 x g
Max. capacity	4 x 2 ml rotor REF 15150/10 16 x 0.2 ml rotor REF 15150/11 PCR-strip	24 x 2 ml rotor REF 15502 24 x capillary tubes rotor REF 15501	12 x 10 ml 8 x 15 ml
Available rotors	Fixed-angle rotor	Fixed-angle rotor REF 15502 Hematocrit rotor REF 15501	Fixed-angle rotor
Available adapter	Rotor REF 15150/10 0.5 ml 0.2 ml	Rotor REF 15502 0.5 ml 0.2 ml	15 ml 10 ml
Timer	None	30 sec – 99 min and hold	30 sec – 99 min and hold
Speed range	7,000 rpm	200 – 14,000 rpm	300 – 4,500 rpm
Lid lock	Power off	Double	Single
Digital display	No	RPM / RCF / Time Temperature	RPM / RCF / Time
Imbalance detection	No	No	No
Acceleration/ breaking rate	Fix	Fix	Fix
Rotor included	Yes, both	Yes, Hematocrit REF 15501	Yes



	HuMax 4K	HuMax 5K	HuMax 14K
	5,000 rpm	4,100 rpm	14,000 rpm rotor REF 17163 4,100 rpm rotor REF 17162 4,100 rpm rotor REF 17161
	2,822 x g	2,450 x g rotor REF 15301P 2,819 x g rotor REF 15301 2,142 x g rotor REF 15302P 2,011 x g rotor REF 15303	18,405 x g rotor REF 17163 3,007 x g rotor REF 17162 3,045 x g rotor REF 17161
	12 x 15 ml	30 x 15 ml rotor REF 15301P 4 x 100 ml rotor REF 15301 16 x 15 ml rotor REF 15302P 2 x MTP rotor REF 15303	24 x 2 ml rotor REF 17163 30 x 15 ml rotor REF 17162 4 x 200 ml rotor REF 17161
	Fixed-angle rotor	Fixed-angle rotor REF 15301P Fixed-angle rotor REF 15302P Swing-out rotor REF 15301 Swing-out MTP REF 15303	Fixed-angle rotor REF 17162 & REF 17163 Swing-out rotor REF 17161
	1.5/2 ml 7 ml 5 ml	Rotor REF 15301P 1.5/2 ml, 7 ml, 5 ml Rotor REF 15302P 1.5/2 ml, 7 ml, 5 ml Rotor REF 15301 100 ml, 50 ml conical, 4 x 15 ml 2 x 15 ml conical, 4 x 7 ml, 4 x 5 ml	Rotor REF 17162 1.5/2 ml, 7 ml, 5 ml Rotor REF 17161 100 ml w/wo cap, 50 ml conical w/wo cap, 7 x 15 ml w/wo cap, 3 x 15 ml conical w/wo cap 7 x 5 or 7 ml w/wo cap Rotor REF 17163 500/800 µl, 200 µl, 250/400/750 µl
	1 – 99 min and hold	1 – 99 min and hold	1 – 99 min and hold
	1,000 – 5,000 rpm	1,000 – 4,100 rpm	500 – 14,000 rpm
	Single	Single	Double
	RPM / RCF / Time	RPM / RCF / Time	RPM / RCF / Time
	No	Yes	Yes
	Fix	5	10
	Yes, 12 x 15 ml	No	No



Accessories for HuMax Centrifuges

REF	Description	Volume	Capless tube dimensions
17155	Adapter for 4K standard 15302P/17162	1 x 1.5/2 ml	Ø 11 x 70 mm
17156	Adapter for 4K standard 15302P/17162	1 x 7 ml	Ø 13 x 115 mm
17157	Adapter for 4K standard 15302P/17162	1 x 5 ml	Ø 13 x 90 mm
15301P	Fixed-angle rotor 4,100 rpm, 2,450 x g	30 x 15 ml	Ø 17 mm
15302P	Fixed-angle rotor 4,100 rpm, 2,142 x g	16 x 15 ml	Ø 17 mm
15303	Microtiterplate rotor 4,100 rpm, 2,011 x g	2 plates	
15301	Swing-out rotor 4,100 rpm, 2,819 x g	4 x inserts	
15305	Set of 4 inserts for 15301	1 x 100 ml	Ø 46.5 x 108 mm
15306	Set of 4 inserts for 15301	1 x 50 ml conical	Ø 30 x 120 mm
15307	Set of 4 inserts for 15301	4 x 15 ml	Ø 17 x 108.5 mm
15308	Set of 4 inserts for 15301	2 x 15 ml conical	Ø 17 x 121 mm
15309	Set of 4 inserts for 15301	4 x 7 ml	Ø 13 x 110 mm
15310	Set of 4 inserts for 15301	4 x 5 ml	Ø 13 x 85 mm
17162	Fixed-angle rotor 4,100 rpm, 3,007 x g	30 x 15 ml	Ø 17 mm
17161	Swing-out rotor 4,100 rpm 3,045 x g	4 x buckets	
17161/1	Set of 4 buckets for 17161	1 x 200 ml	Ø 57 mm
17161/2	Set of 4 buckets for 17161	1 x 200 ml with sealing	Ø 57 mm
17161/3	Set of 4 PP bottles with cap for 17161/1 or 17161/2	1 x 200 ml	Ø 56.5 mm
17161/4	Set of 4 inserts for 17161/1 Set of 4 inserts for 17161/2	1 x 100 ml	Ø 45.0 x 125 mm Ø 45.0 x 119 mm
17161/5	Set of 4 inserts for 17161/1 Set of 4 inserts for 17161/2	1 x 50 ml conical	Ø 30.0 x 131 mm Ø 30.0 x 125 mm
17161/6	Set of 4 inserts for 17161/1 Set of 4 inserts for 17161/2	7 x 15 ml	Ø 17.0 x 126 mm Ø 17.0 x 120 mm
17161/7	Set of 4 inserts for 17161/1 Set of 4 inserts for 17161/2	3 x 15 ml conical	Ø 17.0 x 134 mm Ø 17.0 x 128 mm
17161/8	Set of 4 inserts for 17161/1 Set of 4 inserts for 17161/2	7 x 5 or 7 ml	Ø 13.5 x 128 mm Ø 13.5 x 122 mm
17163	Fixed-angle rotor 14,000 rpm, 18,407 x g	24 x 1.5 or 2 ml	Ø 11.0 x 50 mm
17163/1	Adapter for 17163	500/800 µl	Ø 8.0 x 35 mm
17163/2	Adapter for 17163	200 µl PCR	Ø 6.5 x 37 mm
17163/3	Adapter for 17163	250/400/700 µl	Ø 6.0 x 34 mm
15501	Hematocrit rotor 12,000 rpm, 13,680 x g	24 x capillary tubes	Ø 1.75 x 75 mm
15502	Fixed-angle rotor 14,000 rpm, 18,624 x g	24 x 2 ml	Ø 11 x 39 mm
15503	Adapter for fixed-angle rotor (15502)	200 µl	
15504	Adapter for fixed-angle rotor (15502)	500 µl	
15450/10	Set of 12 adapters	7 - 10 ml	Ø 13 mm
15450/11	Set of 12 adapter inserts for 15450/10 (short tube)	1.5 - 5 ml	Ø 13 mm
15450/12	Set of 8 adapter for 15150/10	8 x 0.2 ml	
15450/13	Set of 8 adapter for 15150/10	8 x 0.5 ml	



Incubator / Waterbath



HumaTherm

Microprocessor controlled incubator

- Temperature range: ambient +5 °C to 80 °C
- Digital display for temperature and time
- Safety thermostat
- Programmable PID microprocessor control system
- Up to 8 GB of external memory for temperature data logging

Ordering Information HumaTherm

REF	Voltage
17195	230 VAC
17195/110*	110 VAC

Accessories HumaTherm

REF	Description
17196/20	Shelf
17196/21	Shelf carrier



HumAqua 5

Unstirred waterbath

- Tank volume: 6 l
- Useful volume: 4 l
- Temperature range: ambient +5 °C to 99.9 °C
- Digital display for temperature and time
- Delivered without cover
- Up to 8 GB of external memory for temperature data logging

Ordering Information HumAqua 5

REF	Voltage
17180/2	230 VAC
17180/1*	110 VAC

Accessories HumAqua 5

REF	Description
17180/10	Plexiglass cover (resists up to 60 °C)
17180/11	Stainless steel cover
17180/12	Rack for 52 tubes 13 x 70 mm
17180/13	Rack for 30 tubes 16 x 70 mm
17180/14	Rack for 27 tubes 18 x 70 mm
17180/15	Rack for 12 tubes 30 x 70 mm

* Increased delivery time or order 220 V version with transformer REF 18970



HumaCube

Benchtop incubator for round tubes

with reliable accuracy and uniformity of temperature

- 20 positions of 13 mm diameter
- 4 positions of 15 mm diameter
- Temperature range: 25 °C, 30 °C, 37 °C, 45 °C
- Digital display for temperature

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Ordering Information HumaCube

REF	Voltage
17050	230 VAC
17070	110 VAC

**NEW**

HumaPure

Cost efficient water ion exchanger for low demand

- Constant water quality
- Capacity 450 l
(at 10° total salinity and conductivity limit of 20 µS/cm)
- Flow rate 65 l/h
- Measuring range µS/cm 0 – 30
- LED measuring device
- Included: device, tubings and cartridge

Ordering Information HumaPure

REF	Voltage
15140	110 VAC / 230VAC

Ordering Information HumaPure Set HumaPure with Prefilter Set

REF	Voltage
15142	110 VAC / 230VAC

Accessories HumaPure

REF	Description
15141	Prefilter set Prefilter housing, prefilter, tube set

Consumables HumaPure

REF	Description
15140/10	Cartridge
15141/10	Spare prefilter (2 pcs)



Diabetes DX

Diabetes today affects hundreds of millions of patients worldwide and still grows. This is not only a huge medical, but also an economic burden increasingly affecting low and middle income countries, where about 80% of the worlds' diabetics live.

With its Diabetes DX products, HUMAN helps to ease and improve both an early diagnosis of diabetes, but also better diabetes monitoring and diabetes management after diagnosis.

Regardless whether this is to be done at the point of care e.g. in a diabetes center, doctors office or if the blood analysis is done in a specialized laboratory. HUMAN's Diabetes DX products fulfill every need with highest quality and precision in combination with rapid results and easy handling.

The HumaSens2.0 glucose meter measures blood glucose rapidly and is also cleared for self-testing.

HumaMeter A1c and HumaNex A1c precisely determine the important long-term parameter glycated hemoglobin HbA1c.

Additional serum, plasma, whole blood and urine assays for the diagnosis and monitoring of diabetes patients are available as HUMAN multi-purpose or system reagent kits.

The Combina urine test strips are ideal for diabetes screening as they offer testing of Glucose, Ketones, Microalbumin and Creatinine.




Blood Glucose Measurement

Clinical Chemistry Multipurpose Reagents

REF	Format	Unit/Size	Storage	Sample
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GLUCOSE liquicolor

Enzymatic colorimetric test, GOD-PAP method

10121	Complete kit	1000 ml	2...8 °C	
10260		4 x 100 ml		



GLUCOSE liquiUV^{mono}

Hexokinase method, monoreagent

10786	Complete kit	1 x 1000 ml	2...8 °C	
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MICROALBUMIN

Immunoturbidimetric test


11120	Reagent kit	1 x 5 ml	2...8 °C	
11124	Standard 	2 x 1 ml		

Clinical Chemistry System Reagents

REF	Format	Unit/Size	Storage	Sample
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GLUCOSE liquicolor

Enzymatic colorimetric test, GOD-PAP method

10260300	Reagent kit	2 x 150 tests	2...8 °C	
10260600		6 x 210 tests		

MICROALBUMIN

Immunoturbidimetric test

11120600	Reagent kit	1 x 90 tests	2...8 °C	
11124	Standard 	2 x 1 ml		

Urinalysis Test Strips

HUMAN offers an extensive line of urine test strips for visual or automated reading. Further information can be found on page 92.



Serum

Plasma
EDTAPlasma
HEP

Urine

not included
but required



The HumaSens2.0 stands for a reliable, precise and easy to use blood glucose monitoring system that offers the patient maximum freedom and convenience. They deliver results rapidly, require only a minimal volume of capillary blood and come as a convenient starter pack without expiring components. The numerous improvements of HumaSens2.0, such as really fast measurement with very little blood or a strip ejector minimizing infection risk and make it the best HumaSens system.



HumaSens2.0



HumaSens2.0

Blood glucose monitoring system

- Measuring time: 5 sec
- Strip ejector to minimize infection risk
- Measuring range: 20 – 600 mg/dl (1.1 – 33.3 mmol/l)
- Memory: 360 results
- Sample volume: 0.7 µl

REF	Format	Contents
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HumaSens2.0

Blood glucose meter

17560	Starter pack	1 x User manual (4 languages: GB, D, F, E) 1 x Quick guide (4 languages: GB, D, F, E) 1 x Patient diary 1 x Pouch 1 x Battery (CR2032)
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Test strips and control solutions are not included to guarantee optimum expiry times when purchased.

System Reagents

REF	Description	Unit/Size
17562	Glucose Test Strips Blue HumaSens2.0 / HumaSens2.0 ^{plus} / HumaSens / HumaSens ^{plus} (with Glucose control solution 17562/10 only)	2 x 25 pcs
17562/2	Glucose Test Strips Blue HumaSens2.0 / HumaSens2.0 ^{plus} / HumaSens / HumaSens ^{plus} (with Glucose control solution 17562/10 only)	1 x 10 pcs
17562/10	Glucose Control HumaSens* / HumaSens ^{plus} * / HumaSens2.0 / HumaSens2.0 ^{plus} (*BLUE GLU strip) (with Glucose test strips 17562 and 17562/2 only)	2 x 2 ml

Consumables HumaSens2.0 | HumaSens2.0^{plus}

REF	Description	Unit/Size
17543**	Lancets	100 pcs
17544**	Lancing device	1 pcs

**Distributed by HUMAN



HbA1c Measurement

Clinical Chemistry Multipurpose Reagents

REF	Format	Unit/Size	Storage	Sample
HbA1c liquidirect Immunoassay, direct method referenced to IFCC method				
10770	Reagent kit	40 ml	2...8 °C	WB
10776	Calibrator set +	4 x 0.5 ml		
10775	Control blood + normal/abnormal	2 x 2 x 0.5 ml		

GLYCOHEMOGLOBIN HbA_{1c}

Fast ion exchange resin separation method

10657	Complete kit	20 tests	2...8 °C	WB
10658		100 tests		
10259	Control +	2 x 1 ml		

Clinical Chemistry System Reagents

REF	Format	Unit/Size	Storage	Sample
HbA1c liquidirect Immunoassay, direct method referenced to IFCC method				
10770600	Reagent kit	1 x 135 tests	2...8 °C	WB
10776	Calibrator set +	4 x 0.5 ml		
10775	Control blood + normal	2 x 0.5 ml		
	Control blood + abnormal	2 x 0.5 ml		

Whole
Bloodnot included
but required



HbA1c (glycated hemoglobin A1c) is used by diabetes professionals worldwide for the routine monitoring of their patients' diabetes status and compliance. HumaMeter A1c for POC and low throughput and HumaNex A1c for laboratory testing are perfect systems for HbA1c determination!

NGSP & IFCC CERTIFIED

REF 16080

HumaMeter A1c

Point-of-care testing of glycated hemoglobin HbA1c

- Accurate, reliable and fast – results in only 4 minutes!
- Easiest handling
- Boronate Affinity Quenching Technology for highest precision



HumaMeter A1c



Movie

Accessories

REF	Description
16081	Printer

Consumables

REF	Description
16082	Printer paper roll (320 labels)

System Reagents

REF	Format	Description
16085/50	HumaMeter A1c reagent kit	50 tests
16086	HumaMeter A1c control kit	4 x 0.25 ml



HbA1c Measurement

The HumaNex A1c is the ideal analyzer for an automated high throughput determination of HbA1c and is therefore ideal for laboratories, larger clinics and diabetes centers. HumaNex A1c enables a quick, fully automated and reliable quality analysis of HbA1c in whole or diluted blood.

NGSP & IFCC CERTIFIED

REF

16180



HumaNex A1c







Medium and large-scale measurement of glycated hemoglobin HbA1c chemistry system including UPS

- Gold standard HPLC technology
- HbA1c analysis in less than 3 minutes
- Measuring range 4 % to 17 % HbA1c
- Simple touchscreen operation
- Fully automated with an onboard capacity of 50 samples
- Less than 3 % CV
- Sample identification via integrated barcode reader
- Sample volume:
10 µl diluent mode / 1.5 ml whole blood mode

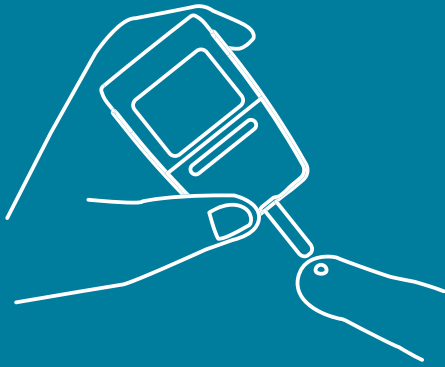


HumaNex A1c

System Reagents

REF	Description		Unit/Size
16185	HumaNex A1c Reagent Kit	HPLC column, reagents, RFID card and filters for 800 tests; 6 rolls printer paper; 100 vials	4...30 °C  
16187	HumaNex A1c Calibrator Kit	2-level Lyophilized calibrator (L1, L2; for 0.250 ml each)	2...8 °C  
16189	HumaNex A1c Control Kit	2-level liquid control (0.5 ml each)	2...8 °C  

Whole Blood
(EDTA-Tube)Diluted
Whole Blood



Point of Care

HUMAN's point of care systems offer high quality and precision in conjunction with rapid results and ease of use.

The compact hemoglobin meter HumaMeter Hb^{plus} provides results with excellent correlation to the reference method without calibration and after only 10 seconds measurement time. Moreover, its reagent cuvettes and controls are extremely stable and have a shelf life of 3 years. The HumaSens2.0^{plus} multi-monitoring system provides a measurement of Total Cholesterol (TC), Uric Acid (UA) and Glucose (GLU) with unprecedented speed, resulting in an efficient lab-in-your-palm for vital markers. All you need is a capillary whole blood sample of just 0.7 μ l (GLU), 1 μ l (UA) or 10 μ l (TC).

All of HUMAN's point of care systems are designed for reliability and safety. They are extremely easy to handle and minimize user errors. Extensive studies have been carried out to ensure their utmost safety and reliability.





Blood Glucose Monitoring

The HumaSens2.0 stands for a reliable, precise and easy to use blood glucose monitoring system that offers the patient maximum freedom and convenience. They deliver results rapidly, require only a minimal volume of capillary blood and come as a convenient starter pack without expiring components. The numerous improvements of HumaSens2.0, such as really fast measurement with very little blood or a strip ejector minimizing infection risk and make it the best HumaSens system.



HumaSens2.0

Blood glucose monitoring system

- Measuring time: 5 sec
- Strip ejector to minimize infection risk
- Measuring range: 20 – 600 mg/dl (1.1 – 33.3 mmol/l)
- Memory: 360 results
- Sample volume: 0.7 µl

REF	Format	Contents
-----	--------	----------

HumaSens2.0 Blood glucose meter

17560	Starter pack	1 x User manual (4 languages: GB, D, F, E) 1 x Quick guide (4 languages: GB, D, F, E) 1 x Patient diary 1 x Pouch 1 x Battery (CR2032)
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Test strips and control solutions are not included to guarantee optimum expiry times when purchased.

System Reagents

REF	Description	Unit/Size
17562	Glucose Test Strips Blue HumaSens2.0 / HumaSens2.0 ^{plus} / HumaSens / HumaSens ^{plus} (with Glucose control solution 17562/10 only)	2 x 25 pcs
17562/2	Glucose Test Strips Blue HumaSens2.0 / HumaSens2.0 ^{plus} / HumaSens / HumaSens ^{plus} (with Glucose control solution 17562/10 only)	1 x 10 pcs
17562/10	Glucose Control HumaSens* / HumaSens ^{plus} * / HumaSens2.0 / HumaSens2.0 ^{plus} (*BLUE GLU strip) (with Glucose test strips 17562 and 17562/2 only)	2 x 2 ml

Consumables HumaSens2.0 | HumaSens2.0^{plus}

REF	Description	Unit/Size
17543**	Lancets	100 pcs
17544**	Lancing device	1 pcs

** Distributed by HUMAN



Multi-Parameter Monitoring

The HumaSens2.0^{plus} multi parameter system combines the efficiency and performance characteristics of the HumaSens2.0 glucose monitoring system with unprecedented speed and versatility of additional total cholesterol and uric acid measurement in one hand-held instrument. The proven reliability, excellent performance, auto strip identification and a strip ejection function make it an ideal lab-in-your palm system for vital markers.

AUTO STRIP IDENTIFICATION



HumaSens2.0^{plus}

Multi-parameter monitoring

Glucose, uric acid and total cholesterol



HumaSens2.0^{plus}

	Measuring time	Measuring range	Memory	Sample volume
Glucose	5 sec	20 – 600 mg/dl	360	0.7 µl
Uric Acid	15 sec	3 – 20 mg/dl	50	1 µl
Total Cholesterol	26 sec	100 – 400 mg/dl	50	10 µl

REF	Format	Contents
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HumaSens2.0^{plus}

Multi-parameter monitoring system

17561	Starter Pack	1 x User manual (4 languages: GB, D, F, E) 1 x Quick guide (4 languages: GB, D, F, E) 1 x Patient diary 1 x Pouch 1 x Battery (CR2032)
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Test strips and control solutions are not included to guarantee optimum expiry times when purchased.

System Reagents

REF	Description	Unit/Size
17562	Glucose Test Strips Blue HumaSens2.0 / HumaSens2.0 ^{plus} / HumaSens / HumaSens ^{plus}	2 x 25 pcs
17562/2	Glucose Test Strips Blue HumaSens2.0 / HumaSens2.0 ^{plus} / HumaSens / HumaSens ^{plus}	1 x 10 pcs
17562/10	Glucose Control HumaSens* / HumaSens ^{plus} * / HumaSens2.0 / HumaSens2.0 ^{plus} (*BLUE GLU strip) (with Glucose test strips 17562 and 17562/2 only)	2 x 2 ml
17566	Uric Acid Test Strips HumaSens2.0 ^{plus}	1 x 25 pcs
17566/10	Uric Acid Control Solution HumaSens2.0 ^{plus}	2 x 2 ml
17567	Total Cholesterol Test Strips HumaSens2.0 ^{plus}	2 x 10 pcs
17567/10	Total Cholesterol Control Solution HumaSens2.0 ^{plus}	2 x 1.5 ml



Hemoglobin Meter

The portable HumaMeter Hb^{Plus} system for hemoglobin determination follows a unique concept combining ease of use and flexibility in application. This compact analyzer provides results with the AHD cyanide-free reference method without calibration, wherever the patient is. The reagent cuvettes and controls are extremely stable with a shelf life of 3 years.



REF

16070

HumaMeter Hb^{Plus}

Portable system for the determination of hemoglobin in blood

- 20 µl sample volume
- Prefilled reagent cuvettes
- Measuring range: 0.5 – 30 g/dl
- Rechargeable batteries

HumaMeter Hb^{Plus}

System Reagents

REF	Unit/Size	Storage	Sample
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Reagent Hb

16070/1	100 tests	4...40 °C	 
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Calibrator Set Hb

16070/2	6 x 1.5 ml	4...40 °C	
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Control Set Hb (2 level)

16070/3	2 x 1.5 ml	4...40 °C	
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Consumable

REF	Description
16070/30	End-to-end capillaries 20 µl (100 pcs)



AHD (Alkaline Haematin Detergent)

The only recognized Hb reference method!

In contrast to most other methods and systems for the determination of Hb in blood, the AHD method does not contain any toxic cyanide. Moreover, what is known to only a few experts, in the AHD method all corpuscular parts and lipid components are solubilized, **preventing** – contrary to all other methods – **the overestimation** of hemoglobin concentrations. Due to this, AHD is the only internationally recognized reference method for the determination of hemoglobin (DIN 58931).



Whole Blood



Capillary Blood



HbA1c (glycated hemoglobin A1c) is used by diabetes professionals worldwide for the routine monitoring of their patients' diabetes status and compliance. HumaMeter A1c for POC and low throughput and HumaNex A1c for laboratory testing are perfect systems for HbA1c determination!

NGSP & iFCC CERTIFIED

REF 16080

HumaMeter A1c

Point-of-care testing of glycated hemoglobin HbA1c

- Accurate, reliable and fast – results in only 4 minutes!
- Easiest handling
- Boronate Affinity Quenching Technology for highest precision



HumaMeter A1c



Movie

Accessories

REF	Description
16081	Printer

Consumable

REF	Description
16082	Printer paper rolls (320 labels)

System Reagents

REF	Format	Description
16085/50	HumaMeter A1c reagent kit	50 tests
16086	HumaMeter A1c control kit	4 x 0.25 ml



Molecular DX

Molecular diagnostic is one of the fastest growing segments within in vitro diagnostics. It analyzes genetic material of humans or pathogens to obtain clinical information associated with diseases. Loop-mediated isothermal amplification (LAMP) is a molecular technology for the detection of pathogens. It enables the amplification at one temperature and the detection of target DNA faster than traditional PCR based methods.

The amplified products are detected visually by reading green fluorescence or by the measurement of turbidity in real-time. Its robustness, high sensitivity and the ease of use make LAMP an excellent and nearly failsafe tool to improve the diagnostic in remote areas.

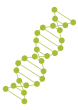
In cooperation with our partner EIKEN CHEMICALS CO. LTD., HUMAN provides an innovative LAMP testing system for the screening of infections with bacteria belonging to the *Mycobacterium Tuberculosis Complex* (MTBC) which was recommended by the WHO in 2016 as an alternative to smear microscopy. Furthermore, with the Loopamp™ Malaria Pan, Malaria Pf and Malaria Pv Detection Kits, HUMAN provides testing systems for Malaria screening especially in low prevalence areas.



TB-LAMP



Malaria-LAMP



LAMP Method

LAMP, an abbreviation for loop-mediated isothermal amplification is an accurate, simple, rapid and cost-effective molecular method. It is characterized by the use of four different primers, which are specifically designed to recognize six distinct regions on the target gene and by a constant temperature during the amplification process. The formed dumbbell-like structures of the DNA provide an increased number of starting points for the DNA synthesis and thus offer a faster multiplication of the target gene.

The entire workflow consists of only four major steps: the sample transfer and lysis, the DNA extraction with the help of the Loopamp™ PURE DNA Extraction Kit, the loop-mediated isothermal amplification, and the result reading with the HumaLoop or the HumaTurb system.

PURE Extraction

The procedure for Ultra Rapid Extraction (PURE) is a fast and efficient extraction method to obtain highly pure DNA from patient samples. It is easy to perform and does not need any additional equipment. After a five minutes heating treatment, the lyzed sample is transferred into the adsorbent tube containing white powder that binds possible inhibitors of the LAMP reaction. The purified DNA is directly transferred into the LAMP reaction tube.

REF	Format	Unit/Size	Storage	Sample
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Loopamp™ PURE DNA Extraction Kit

Manual nucleic acid purification

970000	Complete kit	90 tests	2...30 °C	 
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LAMP MTBC Assay Accessory

REF	Format	Unit/Size	Storage	Sample
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Pipette-60 Set

Pipette-60 Set was designed to ease the transfer of sputum samples. The pipette has a fixed volume of 60 µl. The filter tips come with a wider hole than traditional filter tips to ease the transfer of viscous sputum samples.

971000	Complete kit	1 pipette + 4 x 96 filter tips	2...30 °C	
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LAMP Assays

With the isothermal amplification process, all reagents are manufactured to work perfectly at a constant temperature. During the amplification process, four different primers recognize six distinct target regions. The products obtained are a mixture of stem loop DNA pieces with multiple loops. The detection of amplified products can be performed in two different ways, either by the detection of calcein emitted green fluorescence or by measuring the turbidity that is generated during the amplification of target DNA.



REF	Format	Unit/Size	Storage	Sample
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Loopamp™ MTBC Detection Kit

LAMP assay for the qualitative detection of bacteria belonging to *Mycobacterium Tuberculosis Complex* (MTBC)

972000	Complete kit	2 x 48 tests	2...30 °C	SP
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Loopamp™ Malaria Pan Detection Kit

LAMP assay for the qualitative detection of *Plasmodium pan* species

974000	Complete kit	10 x 48 tests	2...30 °C	WB
NEW 977000		2 x 48 tests		

Loopamp™ Malaria Pv Detection Kit

LAMP assay for the qualitative detection of *Plasmodium vivax* species

NEW 975000	Complete kit	2 x 48 tests	2...30 °C	WB
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Loopamp™ Malaria Pf Detection Kit

LAMP assay for the qualitative detection of *Plasmodium falciparum* species

NEW 978000	Complete kit	2 x 48 tests	2...30 °C	WB
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TB-LAMP



Malaria-LAMP



Instruments

HumaLoop T | M

HUMAN provides solutions for primary and district laboratories (level I+II). The application is simplified by consolidated processing: sample lysis, amplification and detection are performed on a single instrument. Preinstalled incubation times and temperatures as well as easy interpretable results by visual reading of green fluorescence make HumaLoop T and M ideal tools for the molecular screening of pathogens in peripheral laboratories.

Easy to use LAMP technology for primary and district laboratories

One concept – two instruments

- Results in 1 - 2 h depending on sample number
- For up to 16 tests/run
- Visual result reading



REF 961000

HumaLoop T

- For the detection of MTBC
- Lysis temperature: 90 °C
- Amplification temperature: 67 °C



REF 962000

HumaLoop M

- For the detection of Malaria and other parameters
- Lysis temperature: 75 °C
- Amplification temperature: 65 °C

Accessories

REF	Description
980000	HuMax ITA Micro centrifuge with a preinstalled program for incubation, mixing and centrifugation of Loopamp™ reaction tubes
18965/100	Solar Panel (100W) Mobile solar panel for charging the battery system
18965/220	Portable Battery System (220V, 300W) With the portable battery system the LAMP devices can be operated up to three runs without electricity



TB-LAMP



Detect TB.
Accurately. Easily



Malaria-LAMP





HumaTurb System

HumaTurb system allows the real-time detection of turbidity which is generated during the amplification process. The entire system consists of two parts: the control unit HumaTurb C, which is for the individual set up of incubation times, temperatures and HumaTurb A, the amplification unit for performing LAMP reactions. For the lysis of the sample, the HumaHeat with its inserts adapted to the Loopamp™ heating tubes is additionally required. Data archiving via USB, LIS connectivity and the capability to run different assays simultaneously make the HumaTurb system ideal for the fast and sensitive molecular detection of pathogens in reference and regional laboratories (level III+IV).

Scalable LAMP system for reference and regional laboratories



REF 963200

HumaTurb C + A

- Results in 1 - 2 h depending on sample number
- For any throughput up to 96 tests/run
- Different assays can be performed simultaneously
- Capable of being extended with up to six HumaTurb A units for an increased throughput
- Flexible data transfer via USB and LIS connectivity
- Built-in printer

Accessories

REF	Description
18965/100	Solar Panel (100W) Mobile solar panel for charging the battery system
18965/220	Portable Battery System (220V, 300W) With the portable battery system the LAMP devices can be operated up to three runs without electricity



REF 963100

HumaTurb A

HumaTurb C is connectable with up to six HumaTurb A units for an increased throughput of up to 96 tests/run.

- For usage with HumaTurb C

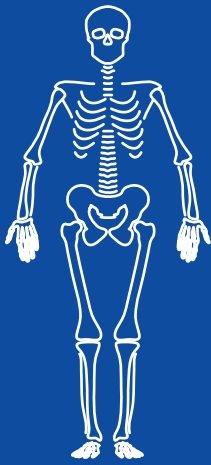


MANDATORY

REF 964000

HumaHeat

The heating unit is used for the sample lysis with the Loopamp™ PURE heating tube in combination with the HumaTurb system.



Autoimmune DX

HUMAN with the integration of IMTEC GmbH and its well-established, successful product line, offers innovative test systems for the diagnosis of autoimmune and rheumatic diseases.

In our competence centre for autoimmune diagnostics in Magdeburg, an expert team of scientists and technicians develops and produces a broad range of high-quality autoimmune diagnostic products comprising ELISA and line immunoassays (LIA).

An expanding patent portfolio and the growing interest in our products worldwide are proof of our consistent reliability and success.

The IMTEC product line is CE marked and distributed worldwide by our qualified partners.





Autoimmune DX

HUMAN provides a broad range of high quality autoimmune diagnostic products comprizing ELISA and line immuno assays (LIA). Due to the volume of the autoimmune diagnostic portfolio, HUMAN offers a separate Autoimmune DX product catalog. You can also find more information on our website.

For more information discover our Autoimmune DX product catalog or visit our website:



Autoimmune DX

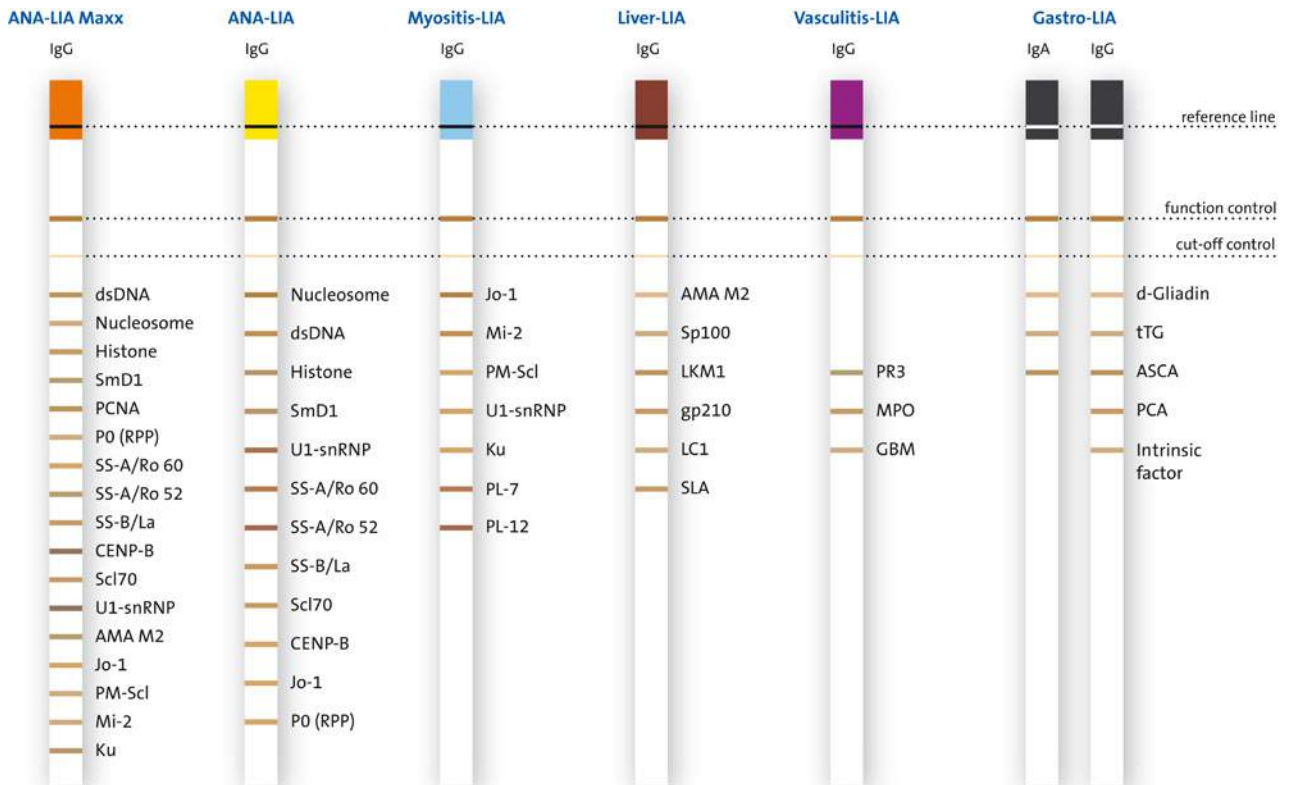


Autoimmune DX Catalog

LIA Technology

Autoimmune diseases are characterized by autoantibody patterns found in patient sera. HUMAN's autoimmune line immuno assays (LIAs) are developed for rapid autoantibody profiling. LIAs are simple to use screening assays. By employing disease-specific antigens, up to 17 different autoantibodies can be differentiated with a single-shot assay. This state-of-the-art autoimmune diagnostic tool is produced by spotting antigens in lines on a simple nitrocellulose membrane utilizing the newest technologies available in the market, including HUMAN's patented epitope-preserving technology.

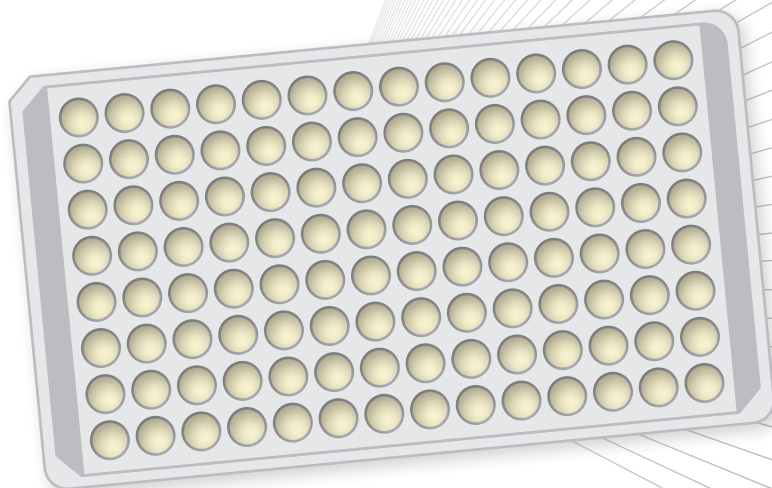
Bound autoantibodies are visualized by using specific HRP-conjugated secondary antibodies that specifically target human autoantibodies and a LIA specific substrate. Positive samples for autoantibodies can be easily detected by comparing the pattern of brown lines to the standardized line (cut-off) that is also spotted on the LIAs. LIAs are ideal autoimmune diagnostic tools for screening and differential diagnosis as well as monitoring autoimmune patients by identifying specific autoantibodies in one shot.





ELISA Technology

The HUMAN ELISAs for Autoimmune DX offer a unique solution for all sizes of laboratories from low to high throughput. The ELISA line consists of 61 ELISAs (both qualitative and quantitative) for the differential diagnosis of autoimmune diseases. To offer the best solution for the requirements of each laboratory, HUMAN offers screening ELISAs for the detection of different subtypes (IgG, IgM, IgA) in one assay and single-parameter ELISAs for separate autoantigens. The quantitative ELISAs are ideally suited for the monitoring of disease progression. All ELISAs are optimized for automation and validated for use with HUMAN's automated ELISA instruments: Elisys Uno, Elisys Duo and Elisys Quattro. Handling is as simple as can be thanks to ready-to-use reagents, breakable microtiter wells and reagents largely interchangeable between different assays and lots. The incubation conditions are the same for almost all assays.



- AMA M2
- ANA
- Annexin V
- beta₂-glycoprotein 1
- C1q
- C1q-CIC
- C3d-CIC
- Cardiolipin
- CCP
- CENP-B
- CIC
- d-Gliadin
- dsDNA
- GBM
- gp210
- Histone
- Jo-1
- Ku
- LKM-1
- LPS
- MPO
- Nucleosome
- oxLDL
- P0 (RPP)
- PCNA
- Phosphatidic acid
- Phosphatidylethanolamine
- Phosphatidylinositol
- Phosphatidylserine
- PM-Scl
- PR3
- Prothrombin
- RA33
- RF
- Salmonella
- Scl70
- SLA
- SmD1
- Sp100
- SS-A/Ro 52
- SS-A/Ro 60
- SS-B/La
- T3
- T4
- Thyroglobulin
- Tissue transglutaminase
- TPO
- TSH-receptor
- U1-snRNP

Brands and Symbols

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Brands and Symbols

Lipid Clearing Factors (LCF)

In some cases, patient samples, particularly those with increased lipid concentrations (Triglycerides, Cholesterol), appear turbid. This can cause problems in the performance of photometric tests as the turbidity may lead to falsely elevated test results with endpoint determinations. To avoid such problems, pretreatment steps to eliminate the turbidity of the samples are often employed. However, such pretreatment steps are time-consuming and error-prone. HUMAN has developed a mixture of special ingredients, collectively called the LCF, to avoid these pretreatment steps. LCF is integrated in the respective test kit reagents and works while the samples are incubated. Clearing is achieved in a few minutes (e.g. up to 2,000 mg/dl triglycerides, equivalent to 22.8 mmol/l, are cleared within 2–3 minutes at room temperature).

Features

- Correct test results, even with highly lipemic specimens
- Turbid samples can directly be integrated into the routine analysis, in particular important for automated analyzer systems
- No separate working steps required
- No extended or additional incubation time

Products with LCF

CHOLESTEROL liquicolor

IRON liquicolor

MAGNESIUM liquicolor

TRIGLYCERIDES GPO liquicolor

URIC ACID liquicolor

CRP-hs

IMTEC

IMTEC is the brand name of HUMAN autoimmune diagnostics.

Legend / Abbreviations

Expiry date

The reagents are stable even after opening until the expiration date printed on the kit or vial label, when stored at the stated temperature.

Kit formats

Complete kit includes all components necessary for a test run. Reagent kit includes reagents but no standard, otherwise the component is specified under its REF M-test: single test.

GSCC

German Society for Clinical Chemistry

IFCC

International Federation of Clinical Chemistry

LCF

Lipid Clearing Factor

SCE

Scandinavian Committee on Enzymes

Stability

The stability of the reagents is described in the respective package inserts.

Storage

Temperature at which the kit should always be stored when not in use.

WR (Working reagent)

Reagent after reconstitution or mixture of liquid components, which is used for the test run.

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