



HUMAN ASSAYED MULTI-SERA - LEVEL 3 (HUM ASY CONTROL 3)

CAT. NO. HE1532 **GTIN**: 05055273203608 **SIZE**: 20 x 5ml **CAT. NO.** HS2611 **GTIN**: 05055273203813 **SIZE**: 5 x 5ml

LOT NO. 1247UE **EXPIRY:** 2026-01-28

INTENDED USE

This product is intended for in vitro diagnostic use, in the quality control of diagnostic assays. The Human Assayed Multi-sera is for the control of accuracy,

DEVICE DESCRIPTION

The Human Assayed Multi-sera is supplied at 2 levels, level 2 and 3. Target values and ranges are supplied for the analytes listed in the values section at both levels.

SAFETY PRECAUTIONS AND WARNINGS

For in vitro diagnostic use only. Do not pipette by mouth. Exercise the normal precautions required for handling laboratory reagents.

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

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

Health and Safety Data Sheets are available on request.

STORAGE AND STABILITY

OPENED: Store refrigerated (+2°C to +8°C). Reconstituted serum is stable for 8 hours at +15°C to +25°C or 7 days at +2°C to +8°C, and 28 days when frozen once at -18°C to -24°C. (See Limitations) UNOPENED: Store refrigerated (+2°C to +8°C). Stable to expiration date printed on individual vials.

LIMITATIONS

For Total & Prostatic Acid Phosphatase, the material should be stabilised by adding 1 drop (25µl - 30µl) of 0.7M Acetic acid solution to 1ml of the serum exactly 30 minutes after reconstitution. After stabilisation Total and Prostatic Acid Phosphatase is stable for 2 hours at +15°C to +25°C, 2 days at +2°C to +8°C, and 28 days when frozen once at -18°C to -24°C.

Alkaline Phosphatase levels in the reconstituted serum will rise over the stability period. It is recommended that the reconstituted serum is allowed to stand for 1 hour at +15°C to +25°C before measurement.

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

GLDH is stable for 2 days at 2-8°C. NEFA is stable for 1 day at +2°C to +8°C.

Total PSA is stable for 4 days at +2°C to +8°C, or 28 days in aliquots frozen at –18°C to –24°C.

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

Different lot numbers of this control should not be interchanged, as the values assigned to the controls vary from lot to lot.

The control should not be used as a calibration material.

Due to the zinc content in some batches of rubber stoppers, the QC and calibrator material should be aliquoted into polypropylene

tubes and stored at +2°C to +8°C to ensure stable zinc levels throughout the stability period.

PREPARATION FOR USE

The Human Assayed Multi-sera is supplied lyophilised.

1. Carefully reconstitute each vial of lyophilised serum with exactly 5ml of distilled water at +15°C to +25°C. Close the bottle and allow to stand for 30 minutes before use. Ensure contents are completely dissolved by swirling gently. Avoid formation of foam.

Do not shake.

- 2. Refer to the Control section of the individual analyser application.
- 3. Refrigerate any unused material. Prior to reuse, mix contents thoroughly.

MATERIALS PROVIDED

Human Assayed Multi-sera - Level 3 20 x 5ml / 5 x 5ml

MATERIALS REQUIRED BUT NOT PROVIDED

Volumetric pipette

ASSIGNED VALUES

Due to the variation caused by test equipment, test reagents and laboratory technique, the quoted ranges are provided for guidance. It is recommended that these ranges are used until each laboratory has established its own ranges, based on individual laboratory requirements.

Each batch of assayed human serum is submitted to reference laboratories for assignment against international Reference Standards.

Where international Reference Standards are unavailable, Reference Methods are used. Values are also collected from approx. 3000 laboratories worldwide and using a unique statistical analysis, a value is assigned. With each batch, a control range is provided for individual parameters and each parameter method. The control range is equivalent to the assigned mean ±2S.D.

If an instrument specific value is not available, refer to the Method section. If necessary, contact Randox Laboratories - Technical Services, Northern Ireland, tel: +44 (0) 28 9445 1070 or email Technical.Services@randox.com.

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



METHOD



HUMAN ASSAYED MULTI-SERA - LEVEL 3

Lot. No. 1247UE	EXPIRY:	2026-01-28	Ca	t. No.	HE1532	/ HS	52611
Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/dl	3.00	2.548	3.45	0.226	0.452	Bromocresol Green
Alkaline Phosphatase	U/L	512	435	589	38.5	77	Diethanolamine buffer DEA 37°C
ALT (GPT)	U/L	138	110	166	14	28	Tris buffer without P5P 37°C
AST (GOT)	U/L	136	109	163	13.5	27	Tris buffer without P5P 37°C
Amylase Total	U/L	275	234	316	20.5	41	Siemens - blocked pNPG7 37°C
Apolipoprotein A-1	mg/dl	115	94.3	135.7	10.35	20.7	Immunoturbidimetric
Apolipoprotein B	mg/dl	63.8	52.3	75.3	5.75	11.5	Immunoturbidimetric
Bilirubin Direct	mg/dl	1.6	1.26	1.94	0.17	0.34	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.76	1.39	2.13	0.186	0.372	Diazo with Dichloroaniline (DCA)
Bilirubin Total	mg/dl	4.67	3.69	5.65	0.49	0.98	Dichlorophenyl Diazonium (DPD)
	mg/dl	5.25	4.15	6.35	0.55	1.1	Diazo with Dichloroaniline (DCA)
Calcium	mg/dl	12.3	11.0	13.6	0.65	1.3	Arsenazo III
	mg/dl	12.3	11.1	13.5	0.6	1.2	Cresolphthalein complexone (CPC)
Cholesterol	mg/dl	278	242	314	18	36	Cholesterol Oxidase
Chloride	mmol/l	117	108	126	4.5	9	Colorimetric
CK Total	U/L	519	425	613	47	94	CK-NAC (IFCC) 37°C
Copper	μg/dl	161	128	194	16.5	33	Colorimetric
Creatinine	mg/dl	4.47	3.576	5.36	0.447	0.894	Jaffe rate blanked
	mg/dl	4.57	3.66	5.48	0.457	0.914	Enzymatic UV method
gamma-GT	U/L	163	138	188	12.5	25.0	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mg/dl	285	241	329	22	44	Glucose oxidase
HDL - Cholesterol	mg/dl	95.3	81.1	110	7.1	14.2	Direct HDL PPD
Immunoglobulin A	mg/dl	184	138	230	23	46	Immunoturbidimetric
Immunoglobulin G	mg/dl	608	499	717	54.5	109	Immunoturbidimetric
Immunoglobulin M	mg/dl	100	80	120	10	20	Immunoturbidimetric
Iron	μg/dl	207	170	244	18.5	37	Colorimetric without ppt.
Lactate	mg/dl	47.9	39.3	56.5	4.3	8.6	Colorimetric Lactate Oxidase
LD (LDH)	U/L	696	592	800	52	104	P->L German methods 37°C
Lipase	U/L	76	61	91	7.5	15	Other Colorimetric 37°C
Lithium	mmol/l	2.1	1.85	2.35	0.127	0.254	— Ion selective electrode
	mg/dl	1.46	1.28	1.64	0.09	0.18	
Magnesium	mg/dl	4.45	3.91	4.99	0.27	0.54	Xylidyl Blue
NEFA	mmol/l	0.56	0.45	0.67	0.057	0.11	Colorimetric
Phosphorus	mg/dl	7.29	6.2	8.38	0.55	1.09	Phosphomolybdate UV
Potassium	mmol/l	5.97	5.49	6.45	0.24	0.48	ISE method - direct
	mmol/l	6.06	5.58	6.54	0.24	0.48	ISE method - indirect
Sodium	mmol/l	156	148	164	4.0	8.0	ISE method - direct
	mmol/l	158	150	166	4.0	8.0	ISE method - indirect
Protein Total	g/dl	4.55	3.64	5.46	0.46	0.91	Biuret reaction end point
TIBC	μg/dl	245	194	296	25.5	51	Direct Colorimetric
Transferrin	mg/dl	177	142	212	17.5	35.0	Immunoturbidimetric
Triglycerides	mg/dl	257	216	298	20.5	41.0	Lipase/GPO-PAP
UIBC	μg/dl	38.6	31.6	45.6	3.5	7.0	Direct Colorimetric
Uric Acid (Urate)	mg/dl	9.09	7.9	10.3	0.60	1.20	Uricase Peroxidase with ascorbate oxidase @ 546nm
Urea	mg/dl	117	99.2	135	8.9	17.8	Urease kinetic
	mg/dl	54.4	46.2	62.6	4.10	8.20	BUN
Zinc	μg/dl	224	179	269	23	45	Colorimetric