

Target Values / Sollwerte / Valores Asignados/ Valeurs Cibles

<https://www.human.de/target-value-sheets/>

Reagent name / Reagenzbezeichnung / Parámetro / Paramètre Method / Methode / Método/ Méthode	applicable for / anwendbar für / aplicable por / applicable pour	SI Unit SI Einheit Unidad SI Unité SI	Mean Mittelwert Media Moyenne	Range Bereich Rango Plage de valeurs	Unit Einheit Unidad Unité	Mean Mittelwert Media Moyenne	Range Bereich Rango Plage de valeurs
HUMAN reagent kits							
ACID PHOSPHATASE a-Naphthylphosphate, Hillmann mod., 37°C	AUTOCAL LOT 0017	μkat/l	0.26	0.19 - 0.32	U/l	15.3	11.6 - 18.9
	AUTOCAL LOT 0018	μkat/l	0.28	0.24 - 0.31	U/l	16.5	14.5 - 18.5
ALBUMIN Iquicolor Bromcresol green	HumaStar analyzer AUTOCAL LOT 0017 and 0018	g/l	54.3	49.4 - 59.1	g/dl	5.43	4.94 - 5.91
	Humalyzer photometer	g/l	50.2	45.1 - 55.2	g/dl	5.02	4.51 - 5.52
ALKALINE PHOSPHATASE Iquicolor AMP buffer, 37°C, IFCC	HumaStar analyzer AUTOCAL LOT 0017	μkat/l	5.43	5.02 - 5.87	U/l	326	301 - 352
	HumaStar analyzer AUTOCAL LOT 0018	μkat/l	4.82	4.28 - 5.33	U/l	289	257 - 320
	Humalyzer photometer	μkat/l	4.68	4.15 - 5.22	U/l	281	249 - 313
ALKALINE PHOSPHATASE opt. Iquicolor DEA Buffer, 37°C, GSCC/DGKC	HumaStar analyzer AUTOCAL LOT 0017	μkat/l	6.35	5.65 - 7.07	U/l	381	339 - 424
	HumaStar analyzer AUTOCAL LOT 0018	μkat/l	6.70	6.18 - 7.22	U/l	402	371 - 433
	Humalyzer photometer	μkat/l	6.85	5.83 - 7.87	U/l	411	350 - 472
	Humalyzer 4000, Setting 004H	μkat/l	5.70	5.00 - 6.40	U/l	342	300 - 384
alpha-AMYLASE Iquicolor CNP3, 37°C, IFCC	HumaStar analyzer AUTOCAL LOT 0017, Humalyzer photometer	μkat/l	4.53	4.07 - 5.02	U/l	272	244 - 301
	HumaStar analyzer AUTOCAL LOT 0018	μkat/l	4.70	4.25 - 5.13	U/l	282	255 - 308
APOLIPOPROTEIN A1 Immunoturbidimetry	HumaStar analyzer	g/l	1.65	1.25 - 2.06	mg/dl	165	125 - 206
	Humalyzer photometer	g/l	1.95	1.74 - 2.16	mg/dl	195	174 - 216
APOLIPOPROTEIN B Immunoturbidimetry	HumaStar analyzer, Humalyzer photometer	g/l	1.35	0.95 - 1.74	mg/dl	135	95.3 - 174
auto-BILIRUBIN-D Iquicolor DPD method	AUTOCAL LOT 0017	μmol/l	45.2	37.6 - 52.7	mg/dl	2.64	2.20 - 3.08
	AUTOCAL LOT 0018	μmol/l	40.7	38.8 - 42.6	mg/dl	2.38	2.27 - 2.49
	Humalyzer 4000	μmol/l	40.2	26.7 - 53.5	mg/dl	2.35	1.56 - 3.13
auto-BILIRUBIN-T Iquicolor DPD method	AUTOCAL LOT 0017, Humalyzer photometer 4000	μmol/l	66.0	61.4 - 70.6	mg/dl	3.86	3.59 - 4.13
	AUTOCAL LOT 0018	μmol/l	68.4	63.3 - 73.4	mg/dl	4.00	3.70 - 4.29
BILIRUBIN Iquicolor DCA method	Humalyzer photometer	μmol/l	62.3	50.8 - 73.7	mg/dl	3.64	2.97 - 4.31
BILIRUBIN DIRECT/TOTAL Iquicolor Determination of Bilirubin total Jendrassik-Gróf	Humalyzer photometer w/o Humalyzer 4000	μmol/l	65.3	55.2 - 75.4	mg/dl	3.82	3.23 - 4.41
	Humalyzer 4000	μmol/l	60.5	54.0 - 67.0	mg/dl	3.54	3.16 - 3.92
BILIRUBIN DIRECT/TOTAL Iquicolor Determination of Bilirubin direct Jendrassik-Gróf	Humalyzer photometer	μmol/l	43.3	34.0 - 52.3	mg/dl	2.53	1.99 - 3.06
CALCIUM Iquicolor Ortho-cresolphthalein	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	3.03	2.83 - 3.23	mg/dl	12.1	11.3 - 12.9
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	3.03	2.85 - 3.23	mg/dl	12.1	11.4 - 12.9
	Humalyzer photometer	mmol/l	3.10	2.95 - 3.23	mg/dl	12.4	11.8 - 12.9
Chloride ISE direct	HumaStar 600, Humalyte	mmol/l	116	107 - 124	mg/dl	411	379 - 440
CHLORIDE Iquicolor TPTZ method	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	124	117 - 131	mg/dl	440	415 - 464
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	119	108 - 129	mg/dl	422	383 - 457
	Humalyzer photometer Primus only	mmol/l	121	105 - 137	mg/dl	429	372 - 486
	Humalyzer photometer 4000 only	mmol/l	131	116 - 146	mg/dl	464	411 - 518
CHOLESTEROL Iquicolor CHOD-PAP	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	8.15	7.03 - 9.26	mg/dl	315	272 - 358
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	8.12	7.47 - 8.77	mg/dl	314	289 - 339
	Humalyzer photometer	mmol/l	7.86	7.45 - 8.25	mg/dl	304	288 - 319
CHOLINESTERASE Iquicolor Butyrylthiocholine, 37°C, GSCC/DGKC	HumaStar analyzer AUTOCAL LOT 0017	μkat/l	136	125 - 146	U/l	8136	7508 - 8764
	HumaStar analyzer AUTOCAL LOT 0018	μkat/l	131	123 - 140	U/l	7880	7359 - 8400
	Humalyzer 4000	μkat/l	140	126 - 154	U/l	8400	7566 - 9234
CK NAC activated Enzymatic, 37°C	Humalyzer photometer	μkat/l	11.9	9.50 - 14.2	U/l	712	570 - 854
CK NAC IquiuV Enzymatic, 37°C, IFCC	HumaStar analyzer AUTOCAL LOT 0017	μkat/l	13.0	11.9 - 14.1	U/l	782	715 - 848
	HumaStar analyzer AUTOCAL LOT 0018, Humalyzer 4000/Primus	μkat/l	12.0	10.9 - 13.0	U/l	718	656 - 779
	Humalyzer 2000/3000	μkat/l	10.8	8.50 - 13.1	U/l	649	510 - 788
auto-CREATININE Iquicolor Jaffé	HumaStar analyzer AUTOCAL LOT 0017, Humalyzer photometer	μmol/l	449	350 - 547	mg/dl	5.08	3.96 - 6.19
	HumaStar analyzer AUTOCAL LOT 0018	μmol/l	455	423 - 487	mg/dl	5.15	4.79 - 5.51
CREATININE Iquicolor Jaffé	Humalyzer photometer	μmol/l	419	371 - 466	mg/dl	4.74	4.20 - 5.27
CREATININE (enzym) Iquicolor Enzymatic	HumaStar analyzer AUTOCAL LOT 0018	μmol/l	455	430 - 481	mg/dl	5.15	4.86 - 5.44
	HumaStar 600 AUTOCAL LOT 0017	μmol/l	425	395 - 454	mg/dl	4.81	4.47 - 5.14
	Humalyzer 4000	μmol/l	418	349 - 487	mg/dl	4.73	3.95 - 5.51
gamma-GT Iquicolor Gamma-Glutamyl-3-carboxy-4-nitroanilide, 37°C, IFCC	HumaStar analyzer AUTOCAL LOT 0017	μkat/l	2.25	1.78 - 2.72	U/l	135	107 - 163
	HumaStar analyzer AUTOCAL LOT 0018	μkat/l	2.37	2.13 - 2.58	U/l	142	128 - 155
	Humalyzer photometer	μkat/l	2.05	1.72 - 2.37	U/l	123	103 - 142
GLUCOSE Iquicolor GOD	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	11.4	10.7 - 12.0	mg/dl	205	192 - 217
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	11.0	10.3 - 11.7	mg/dl	198	185 - 211
	Humalyzer photometer	mmol/l	11.5	10.4 - 12.5	mg/dl	207	188 - 225

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GLUCOSE liquiUV^{mono} Hexokinase	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	11.5	10.5 - 12.5	mg/dl	208	190 - 225
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	11.0	10.3 - 11.8	mg/dl	199	186 - 212
	Humalyzer photometer	mmol/l	12.4	10.8 - 14.0	mg/dl	223	194 - 252
GOT (ASAT) IFCC mod. liquiUV Enzymatic, 37°C, IFCC without P5P	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	2.23	2.10 - 2.38	U/l	134	126 - 143
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	2.05	1.92 - 2.18	U/l	123	115 - 131
	Humalyzer photometer	µkat/l	2.08	1.82 - 2.33	U/l	125	109 - 140
GPT (ALAT) IFCC mod. liquiUV Enzymatic, 37°C, IFCC without P5P	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	2.05	1.88 - 2.20	U/l	123	113 - 132
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	1.98	1.77 - 2.20	U/l	119	106 - 132
	Humalyzer photometer	µkat/l	1.92	1.60 - 2.25	U/l	115	96.1 - 135
HDL CHOLESTEROL liquicolor Homogenous enzymatic assay	AUTOCAL LOT 0017	mmol/l	3.15	2.69 - 3.62	mg/dl	122	104 - 140
	AUTOCAL LOT 0018	mmol/l	3.62	3.00 - 4.27	mg/dl	140	116 - 165
	for Kit calibrator up to lot 22000	mmol/l	2.77	2.43 - 3.10	mg/dl	107	94.1 - 120
	for Kit calibrator from lot 22001	mmol/l	3.59	2.59 - 4.58	mg/dl	139	100 - 177
HDL CHOLESTEROL Precipitation method	Humalyzer photometer	mmol/l	3.31	2.92 - 3.72	mg/dl	128	113 - 144
IRON liquicolor CAB	HumaStar analyzer AUTOCAL LOT 0017	µmol/l	52.1	37.8 - 66.2	µg/dl	291	211 - 370
	HumaStar analyzer AUTOCAL LOT 0018	µmol/l	55.8	49.4 - 62.1	µg/dl	312	276 - 347
	Humalyzer photometer	µmol/l	46.2	33.5 - 58.9	µg/dl	258	187 - 329
IRON TPTZ liquicolor TPTZ	HumaStar analyzer AUTOCAL LOT 0017	µmol/l	54.4	49.9 - 59.1	µg/dl	304	279 - 330
	HumaStar analyzer AUTOCAL LOT 0018	µmol/l	56.0	52.4 - 59.8	µg/dl	313	293 - 334
	Humalyzer photometer	µmol/l	51.7	45.3 - 58.2	µg/dl	289	253 - 325
IMMUNOGLOBULINS direct IgA Immunoturbidimetry	HumaStar analyzer, Humalyzer photometer	g/l	2.58	2.28 - 2.88	mg/dl	258	228 - 288
IMMUNOGLOBULINS direct IgG Immunoturbidimetry	HumaStar analyzer, Humalyzer photometer	g/l	12.3	9.83 - 14.8	mg/dl	1234	983 - 1484
IMMUNOGLOBULINS direct IgM Immunoturbidimetry	HumaStar 600, Humalyzer 4000	g/l	0.86	0.78 - 0.93	mg/dl	85.6	78.2 - 93.0
	HumaStar 100/200/300SR, Humalyzer 2000/3000	g/l	1.16	0.90 - 1.43	mg/dl	116	89.7 - 143
LDH SCE mod. liquiUV Substrate Pyruvate, 37°C, SCE	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	11.6	10.4 - 12.8	U/l	696	625 - 767
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	11.3	10.3 - 12.2	U/l	676	619 - 733
	Humalyzer photometer	µkat/l	11.3	9.42 - 13.2	U/l	677	565 - 790
LDL CHOLESTEROL liquicolor Homogenous enzymatic assay	AUTOCAL LOT 0017	mmol/l	4.22	2.82 - 5.64	mg/dl	163	109 - 218
	AUTOCAL LOT 0018	mmol/l	3.34	2.22 - 4.42	mg/dl	129	86.0 - 171
	for Kit calibrator up to lot 22000	mmol/l	3.65	2.64 - 4.68	mg/dl	141	102 - 181
	Humalyzer photometr Kit calibrator from lot 22001	mmol/l	2.55	1.72 - 3.36	mg/dl	98.6	66.7 - 130
	HumaStar analyzer Kit calibrator from lot 22001	mmol/l	3.39	2.69 - 4.06	mg/dl	131	104 - 157
LIPASE liquicolor Substrate Methylresorufin, 37°C	LOT 21001 and higher: AUTOCAL LOT 0017	µkat/l	1.39	1.25 - 1.53	U/l	83.5	75.0 - 92.0
	LOT 21001 and higher: AUTOCAL LOT 0018	µkat/l	1.21	1.05 - 1.37	U/l	72.5	62.9 - 82.1
	up to LOT 20010: AUTOCAL LOT 0017 and 0018	µkat/l	1.09	0.81 - 1.38	U/l	65.5	48.4 - 82.6
MAGNESIUM liquicolor Xylidyl blue	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	1.30	1.16 - 1.43	mg/dl	3.15	2.83 - 3.47
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	1.24	1.07 - 1.41	mg/dl	3.01	2.59 - 3.43
	Humalyzer photometer	mmol/l	1.34	1.21 - 1.47	mg/dl	3.25	2.93 - 3.57
PANCREAS-AMYLASE liquicolor EPS-G7, 37°C	AUTOCAL LOT 0017	µkat/l	2.98	2.80 - 3.15	U/l	179	168 - 189
	AUTOCAL LOT 0018	µkat/l	2.57	2.35 - 2.77	U/l	154	141 - 166
PHOSPHORUS liquirapid Molybdate (UV)	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	2.78	2.62 - 2.94	mg/dl	8.61	8.10 - 9.11
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	2.85	2.63 - 3.07	mg/dl	8.83	8.14 - 9.52
	Humalyzer photometer	mmol/l	2.77	2.44 - 3.11	mg/dl	8.59	7.55 - 9.62
Potassium ISE direct	HumaStar 600, Humalyte	mmol/l	6.30	5.91 - 6.69	mval/l	6.30	5.91 - 6.69
POTASSIUM liquirapid Precipitation method	Humalyzer photometer	mmol/l	6.01	4.89 - 7.12	mval/l	6.01	4.89 - 7.12
POTASSIUM liquiUV Enzymatic	HumaStar analyzer, Humalyzer photometer	mmol/l	6.46	5.57 - 7.34	mval/l	6.46	5.57 - 7.34
Sodium ISE direct	HumaStar 600, Humalyte	mmol/l	160	155 - 165	mval/l	160	155 - 165
SODIUM liquicolor Enzymatic	HumaStar analyzer, Humalyzer photometer	mmol/l	151	131 - 171	mval/l	151	131 - 171
SODIUM RAPID Precipitation method	Humalyzer photometer	mmol/l	134	106 - 161	mval/l	134	106 - 161
TIBC Fe saturation Fe determination using IRON TPTZ liquicolor	HumaStar analyzer	µmol/l	105	87.0 - 123	µg/dl	588	486 - 689
TIBC Fe saturation Fe determination using IRON liquicolor	HumaStar analyzer	µmol/l	94.0	79.8 - 108	µg/dl	525	446 - 604
TOTAL PROTEIN liquicolor Biuret	HumaStar analyzer AUTOCAL LOT 0017	g/l	91.2	86.1 - 96.2	g/dl	9.12	8.61 - 9.62
	HumaStar analyzer AUTOCAL LOT 0018	g/l	91.3	83.3 - 99.3	g/dl	9.13	8.33 - 9.93
	Humalyzer photometer	g/l	93.9	85.3 - 102	g/dl	9.39	8.53 - 10.2
TRIGLYCERIDES liquicolor^{mono} GPO POD	HumaStar analyzer AUTOCAL LOT 0017, Humalyzer photometer	mmol/l	2.68	2.29 - 3.07	mg/dl	235	201 - 269
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	2.74	2.51 - 2.98	mg/dl	240	220 - 261

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UREA liquicolor Berthelot mod.	Humalyzer photometer	mmol/l	23.6	20.0 - 27.3	mg/dl	142	120 - 164
UREA liquiUV Urease (UV)	HumaStar analyzer AUTOCAL LOT 0017, Humalyzer photometer	mmol/l	23.8	22.1 - 25.6	mg/dl	143	133 - 154
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	24.0	22.5 - 25.3	mg/dl	144	135 - 152
URIC ACID liquicolor^{plus} Uricase	Humalyzer photometer	μmol/l	636	520 - 755	mg/dl	10.7	8.74 - 12.7
	HumaStar analyzer AUTOCAL LOT 0017 and 0018	μmol/l	607	556 - 660	mg/dl	10.2	9.35 - 11.1
URIC ACID liquicolor Uricase	HumaStar analyzer AUTOCAL LOT 0017	μmol/l	569	491 - 648	mg/dl	9.57	8.25 - 10.9
	HumaStar analyzer AUTOCAL LOT 0018	μmol/l	613	504 - 720	mg/dl	10.3	8.47 - 12.1
	Humalyzer photometer	μmol/l	613	544 - 678	mg/dl	10.3	9.14 - 11.4