

Listing and evaluation of the results

1: Dr. med.Max Mustermann
Laboratory Mustermann

Survey of 21 October 2020

Adviser:

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Cerebrospinal Fluid Analysis 01 - Protein Analysis

Analyte	Sample	Unit	Your value	Target value	TV-Type	Lower limit	Upper limit	Deviation	Z-Score	Meets criteria	
Protein - CSF	60	mg/l	1820	1748	ET	1346	2150	4.1%	1,44	+	
	61		330	315	ET	243	387	4.8%	0,867	+	
Albumin - CSF	60	mg/l	1360	1252	ET	964	1540	8.6%	2,37	+	
	61		233	226	ET	174	278	3.1%	0,716	+	
IgG - CSF	60	mg/l	235	205	ET	164	246	14.6%	2,17	+	
	61		38.7	36.4	ET	29.1	43.7	6.3%	2,19	+	
IgA - CSF	60	mg/l	33.4	35.5	ET	25.9	45.1	-5.9%	-1,71	+	
	61		5.03	4.34	tSV	3.17	5.51	15.9%	2,16	+	
IgM - CSF	60	mg/l	8.88	8.86	tSV	5.94	11.8	0.2%	0,018	+	
	61		2.17	2.03	tSV	1.36	2.70	6.9%	0,704	+	
Albumin	60	g/l	34.4	34.0	tSV	27.2	40.8	1.2%	0,28	+	
	61		44.7	44.4	tSV	35.5	53.3	0.7%	0,207	+	
IgG	60	g/l	10.5	10.5	tSV	8.61	12.4	0.0%	0	+	
	61		11.3	11.2	tSV	9.18	13.2	0.9%	0,366	+	
IgA	60	g/l	1.48	1.44	ET	1.15	1.73	2.8%	0,252	+	
	61		1.92	1.90	ET	1.52	2.28	1.1%	0,104	+	
IgM	60	g/l	0.730	0.740	tSV	0.548	0.932	-1.4%	-0,25	+	
	61		0.880	0.948	tSV	0.702	1.19	-7.2%	-1,21	+	

Analyte	Sample	Your unit	Stated value	Conversion factor	Method	Manufacturer	Device
Protein - CSF	60		1820	1.00	116	RO	RO71
	61		330	1.00			
Albumin - CSF	60		1360	1.00	87	BE	BE51
	61		233	1.00			
IgG - CSF	60		235	1.00	87	BE	BE51
	61		38.7	1.00			
IgA - CSF	60		33.4	1.00	87	BE	BE51
	61		5.03	1.00			
IgM - CSF	60		8.88	1.00	87	BE	BE51
	61		2.17	1.00			
Albumin	60		34.4	1.00	87	BE	BE51
	61		44.7	1.00			
IgG	60		10.5	1.00	87	BE	BE51
	61		11.3	1.00			
IgA	60		1.48	1.00	87	BE	BE51
	61		1.92	1.00			
IgM	60		0.730	1.00	87	BE	BE51
	61		0.880	1.00			



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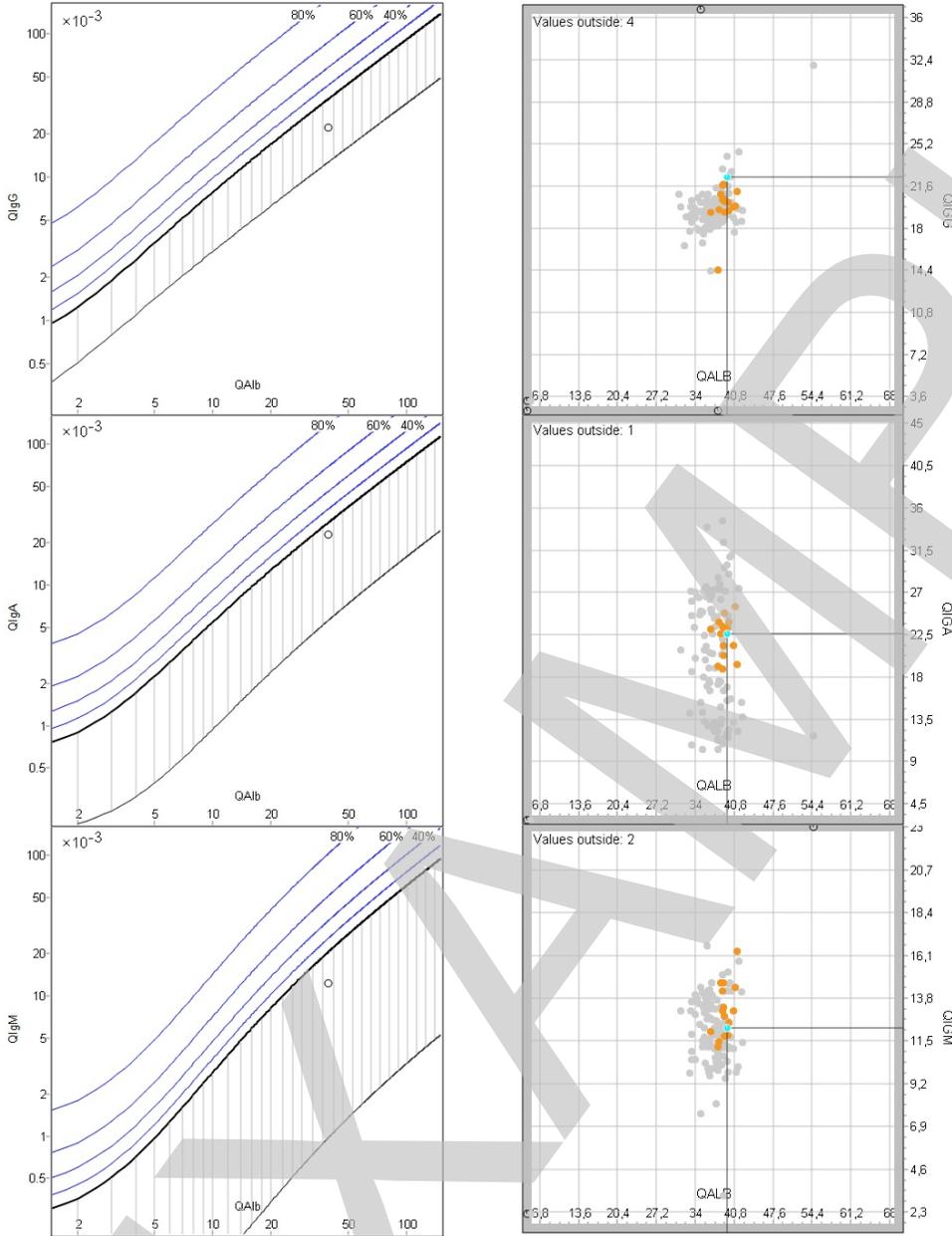
Analyte	Sample	Method	Manufacturer	Device	Your specification(s)	Correct specification(s)	TV-Type	Meets criteria
normal quotient of	60				IgG, IgM	IgG, IgA, IgM	M	+
	61				Albumin, IgG	Albumin	M	+
intrathecal synthesis of	60				IgA	IgA, no evidence of intrathecal immunoglobulin synthesis	M	+
	61				IgM	IgA, IgM, no evidence of intrathecal immunoglobulin synthesis	M	+
Interpretation of the report	60				Blood/CSF-barrier dysfunction, inflammatory CNS process	Blood/CSF-barrier dysfunction	M	+
	61				inflammatory CNS process	normal CSF, inflammatory CNS process, implausible combination of the quotients	M	+

** BRAVO **

Listing and evaluation of the results

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Sample 60

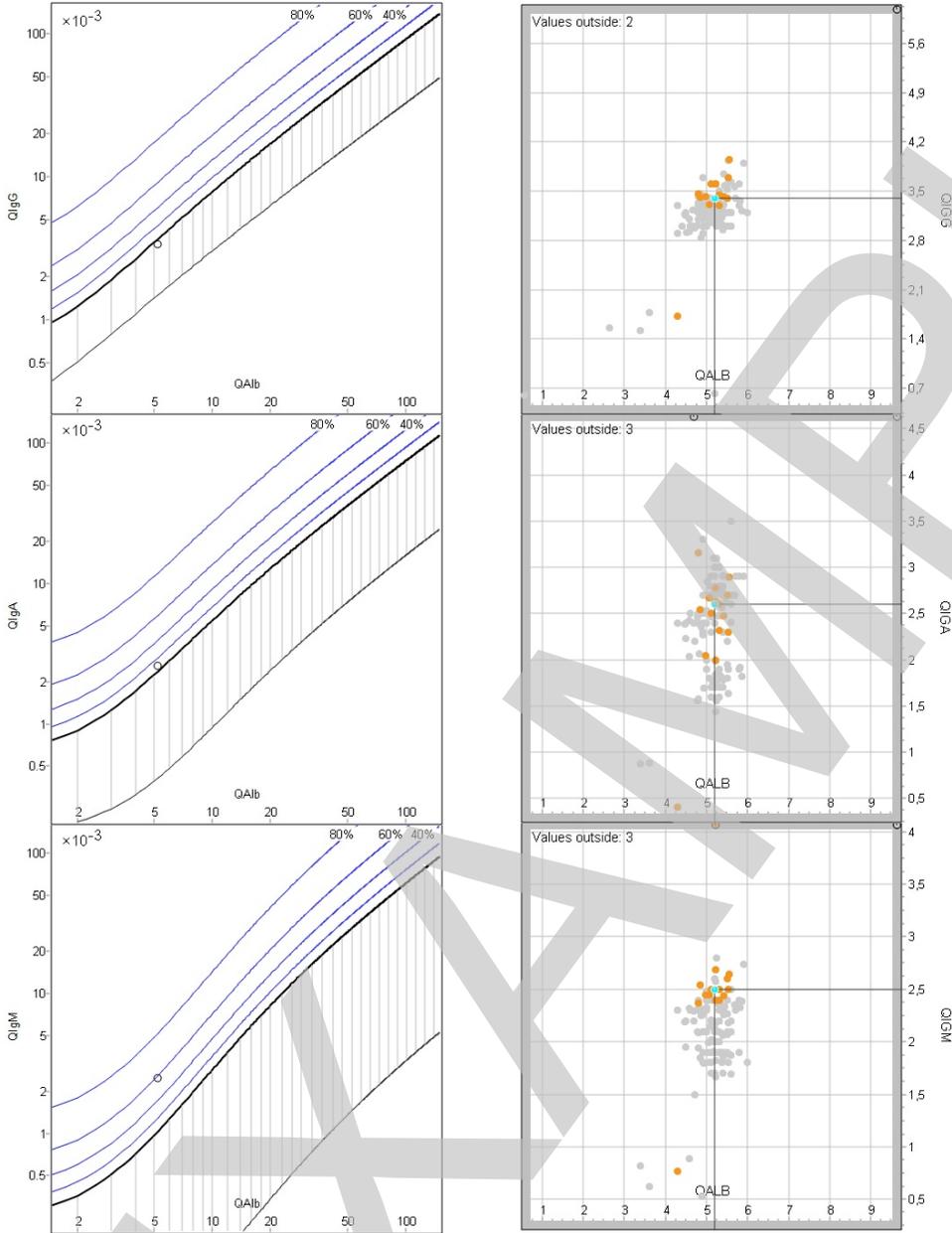


Analyte	Sample	Unit	Your value	Target value	TV-Type	Lower limit	Upper limit	Deviation	Z-Score	Meets criteria	
Albumin quotient	60	E-3	39.5	37.1	tSV	26.0	48.2	6.5%	1,78	+	
IgG Quotient	60	E-3	22.4	19.5	tSV	13.7	25.4	14.9%	2,69	+	
IgA Quotient	60	E-3	22.6	24.2	ET	16.9	31.5	-6.6%	-0,696	+	
IgM Quotient	60	E-3	12.2	12.2	tSV	8.54	15.9	0.0%	0	+	

Listing and evaluation of the results

1: Dr. med.Max Mustermann
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 Survey of 21 October 2020

Sample 61



Analyte	Sample	Unit	Your value	Target value	TV-Type	Lower limit	Upper limit	Deviation	Z-Score	Meets criteria	
Albumin quotient	61	E-3	5.20	5.12	tSV	3.58	6.66	1.6%	0,28	+	
IgG Quotient	61	E-3	3.40	3.24	tSV	2.27	4.21	4.9%	0,976	+	
IgA Quotient	61	E-3	2.60	2.46	ET	1.72	3.20	5.7%	0,403	+	
IgM Quotient	61	E-3	2.50	2.16	tSV	1.51	2.81	15.7%	2,74	+	

Individual summary of results

1: Dr. med. Max Mustermann
Laboratory Mustermann

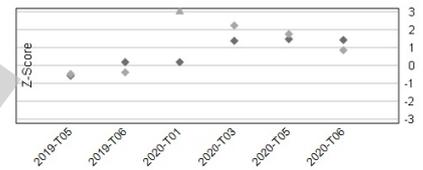
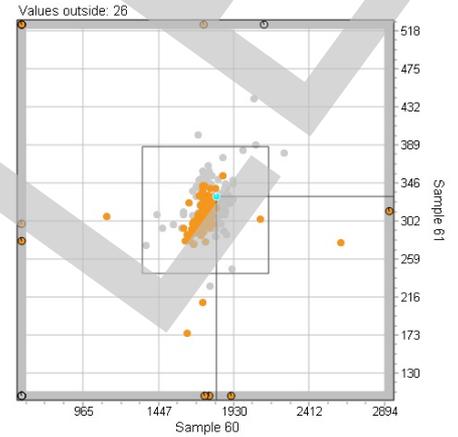
Survey of 21 October 2020

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Cerebrospinal Fluid Analysis 01 - Protein Analysis

Protein - CSF (mg/l, N = 245)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
ABBOTT	60	1748	1346 - 2150	1864	2.06	20	90.0	90.0		
	61	315	243 - 387	311	5.34	20	90.0			
BECKMAN COULTER	60	1748	1346 - 2150	1826	3.43	27	88.9	85.2		
	61	315	243 - 387	323	6.84	27	85.2			
SIEMENS (Bayer Health)	60	1748	1346 - 2150	1246	61.4	8	75.0	75.0		
	61	315	243 - 387	244	61.5	8	75.0			
SIEMENS (Dade Behring)	60	1748	1346 - 2150	1739	2.50	26	100	92.3		
	61	315	243 - 387	345	4.78	26	92.3			
ROCHE DIAGNOSTICS	60	1748	1346 - 2150	1734	2.88	150	90.0	86.0		
	61	315	243 - 387	310	5.58	150	89.3			
other providers	60	1748	1346 - 2150	1753	18.3	14	85.7	71.4		
	61	315	243 - 387	325	17.4	14	78.6			

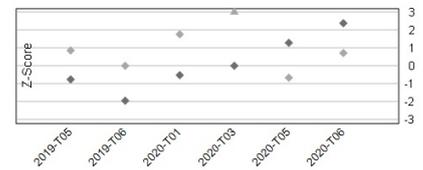
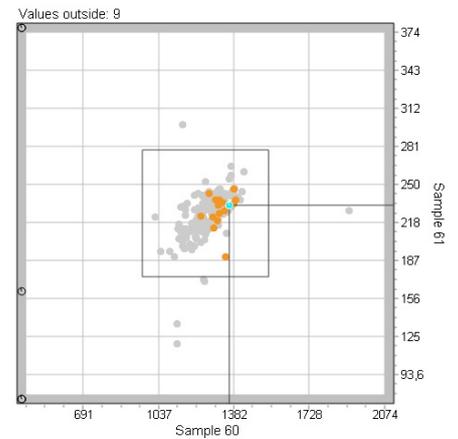
Rate of success: 85,7%



Albumin - CSF (mg/l, N = 174)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
BECKMAN COULTER	60	1252	964 - 1540	1326	3.44	17	100	100		
	61	226	174 - 278	231	4.23	17	100			
BINDING SITE, THE	60	1252	964 - 1540	1269	3.25	13	100	92.3		
	61	226	174 - 278	235	2.91	13	92.3			
SIEMENS (Dade Behring, Bayer Health)	60	1252	964 - 1540	1287	5.69	89	95.5	94.4		
	61	226	174 - 278	232	5.34	89	95.5			
ROCHE DIAGNOSTICS	60	1252	964 - 1540	1173	5.00	50	92.0	86.0		
	61	226	174 - 278	210	5.38	50	86.0			
other providers (1)	60	1252	964 - 1540	805	81.9	5				
	61	226	174 - 278	177	62.7	5				

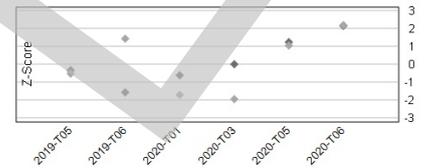
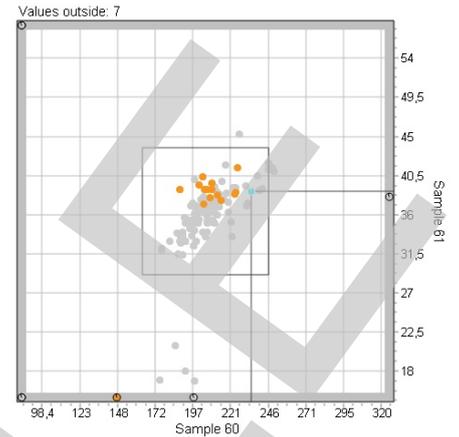
Rate of success: 91,4%

(1) In individual cases is a statistically valid valuation with consensus value not given, because size of the collective < 8 values.



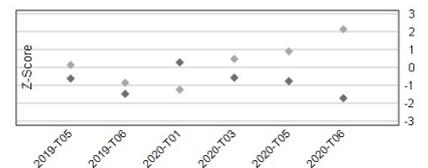
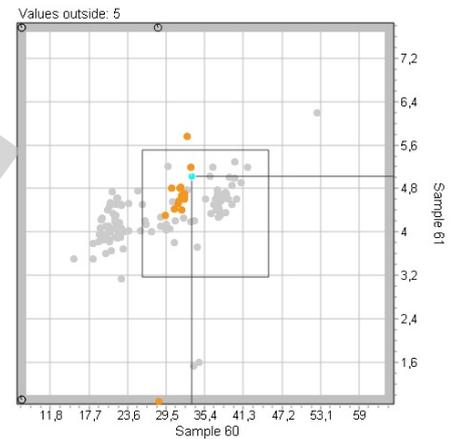
IgG - CSF (mg/l, N = 157)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
BECKMAN COULTER	60	205	164 - 246	210	6.57	16	93.8	93.8		
	61	36.4	29.1 - 43.7	38.7	2.71	16	93.8			
BINDING SITE, THE	60	205	164 - 246	223	12.3	14	85.7	78.6		
	61	36.4	29.1 - 43.7	38.9	6.27	14	85.7			
SIEMENS (Dade Behring, Bayer Health)	60	205	164 - 246	206	3.78	88	97.7	94.3		
	61	36.4	29.1 - 43.7	36.6	3.72	88	95.5			
ROCHE DIAGNOSTICS, ABBOTT	60	205	164 - 246	194	5.01	39	92.3	87.2		
	61	36.4	29.1 - 43.7	34.0	6.50	39	89.7			

Rate of success: 91,1%



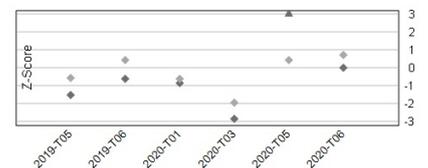
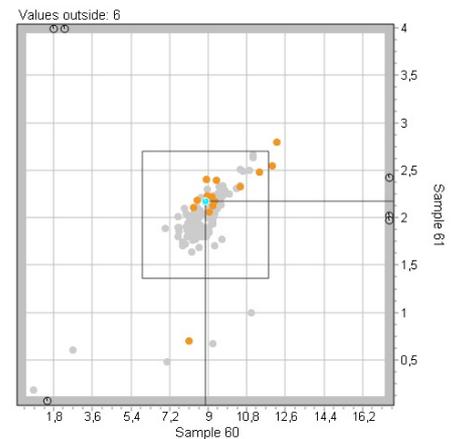
IgA - CSF (mg/l, N = 128)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
BECKMAN COULTER	60	35.5	25.9 - 45.1	31.7	3.88	16	100	87.5		
	61	4.34	3.17 - 5.51	4.68	6.82	16	87.5			
BINDING SITE, THE	60	35.5	25.9 - 45.1	37.5	12.5	11	81.8	72.7		
	61	4.34	3.17 - 5.51	5.02	6.87	11	72.7			
SIEMENS (Dade Behring, Bayer Health)	60	35.5	25.9 - 45.1	23.2	17.5	73	24.7	23.3		
	61	4.34	3.17 - 5.51	4.14	7.83	73	95.9			
ROCHE DIAGNOSTICS	60	35.5	25.9 - 45.1	37.5	4.27	28	92.9	89.3		
	61	4.34	3.17 - 5.51	4.51	4.48	28	89.3			

Rate of success: 50%



IgM - CSF (mg/l, N = 137)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
BECKMAN COULTER	60	8.86	5.94 - 11.8	9.40	11.8	16	87.5	81.3		
	61	2.03	1.36 - 2.70	2.26	8.81	16	87.5			
BINDING SITE, THE	60	8.86	5.94 - 11.8	8.37	12.1	12	83.3	75.0		
	61	2.03	1.36 - 2.70	1.81	9.06	12	83.3			
SIEMENS (Dade Behring, Bayer Health)	60	8.86	5.94 - 11.8	8.96	10.7	80	96.3	93.8		
	61	2.03	1.36 - 2.70	2.09	10.1	80	95.0			
ROCHE DIAGNOSTICS	60	8.86	5.94 - 11.8	8.65	4.22	29	89.7	86.2		
	61	2.03	1.36 - 2.70	1.84	3.86	29	89.7			

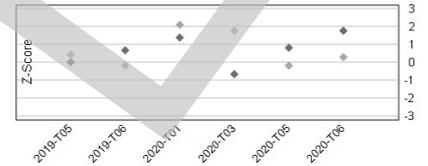
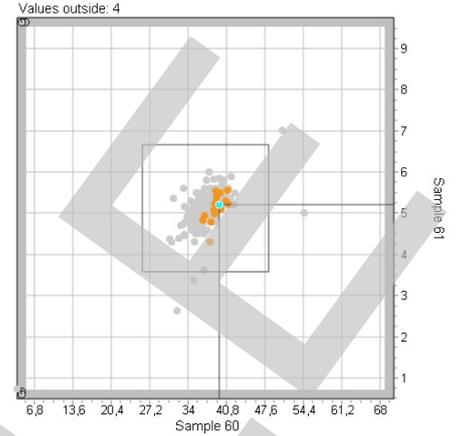
Rate of success: 89,1%



Albumin quotient (E-3, N = 161)										
Collective	Sample	Target value	Target range		Participants collective			Rate (%)		
					AVG	CV	Num.	Sam.	total	
BECKMAN COULTER	60	37.1	26.0	- 48.2	39.0	3.46	17	100	100	
	61	5.12	3.58	- 6.66	5.17	5.53	17	100		
BINDING SITE, THE	60	37.1	26.0	- 48.2	39.1	5.22	13	92.3	92.3	
	61	5.12	3.58	- 6.66	5.40	8.19	13	92.3		
SIEMENS (Dade Behring, Bayer Health)	60	37.1	26.0	- 48.2	37.6	5.16	84	96.4	96.4	
	61	5.12	3.58	- 6.66	5.24	4.77	84	97.6		
ROCHE DIAGNOSTICS	60	37.1	26.0	- 48.2	35.1	5.19	43	95.3	90.7	
	61	5.12	3.58	- 6.66	4.76	6.30	43	90.7		
other providers (1)	60	37.1	26.0	- 48.2	28.1	65.1	4			
	61	5.12	3.58	- 6.66	4.00	61.8	4			

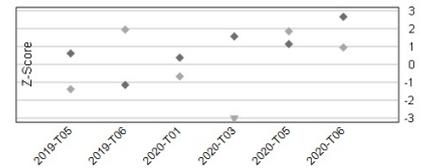
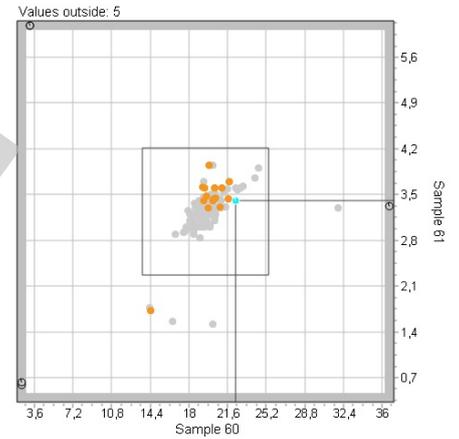
(1) In individual cases is a statistically valid valuation with consensus value not given, because size of the collective < 8 values.

Rate of success: 94,4%



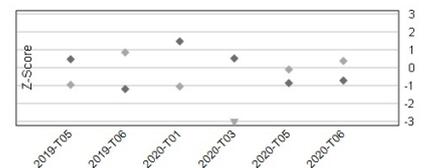
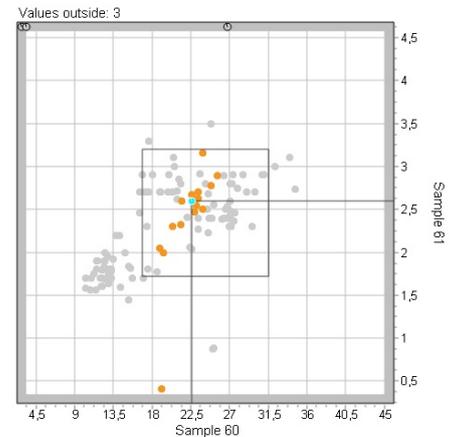
IgG Quotient (E-3, N = 149)										
Collective	Sample	Target value	Target range		Participants collective			Rate (%)		
					AVG	CV	Num.	Sam.	total	
BECKMAN COULTER	60	19.5	13.7	- 25.4	20.3	5.32	16	100	93.8	
	61	3.24	2.27	- 4.21	3.48	4.71	16	93.8		
BINDING SITE, THE	60	19.5	13.7	- 25.4	21.1	14.8	13	92.3	84.6	
	61	3.24	2.27	- 4.21	3.44	10.9	13	84.6		
SIEMENS (Dade Behring, Bayer Health)	60	19.5	13.7	- 25.4	19.5	4.76	85	95.3	95.3	
	61	3.24	2.27	- 4.21	3.24	4.01	85	97.6		
ROCHE DIAGNOSTICS; ABBOTT	60	19.5	13.7	- 25.4	18.8	4.51	35	97.1	91.4	
	61	3.24	2.27	- 4.21	3.10	5.52	35	91.4		

Rate of success: 93,3%



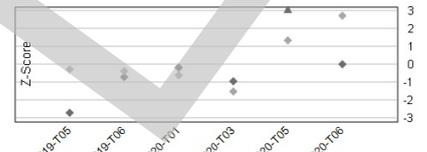
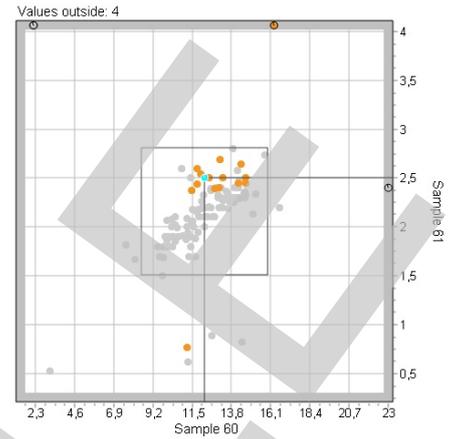
IgA Quotient (E-3, N = 124)										
Collective	Sample	Target value	Target range		Participants collective			Rate (%)		
					AVG	CV	Num.	Sam.	total	
BECKMAN COULTER	60	24.2	16.9	- 31.5	22.3	10.3	16	100	93.8	
	61	2.46	1.72	- 3.20	2.50	13.9	16	93.8		
BINDING SITE, THE	60	24.2	16.9	- 31.5	28.0	14.5	10	90.0	80.0	
	61	2.46	1.72	- 3.20	2.75	9.60	10	90.0		
ROCHE DIAGNOSTICS	60	24.2	16.9	- 31.5	26.0	5.35	26	96.2	88.5	
	61	2.46	1.72	- 3.20	2.41	5.06	26	88.5		
SIEMENS (CSF assay)	60	24.2	16.9	- 31.5	22.2	25.0	28	82.1	82.1	
	61	2.46	1.72	- 3.20	2.79	5.56	28	96.4		
SIEMENS (serum assay)	60	24.2	16.9	- 31.5	13.5	18.4	35	17.1	14.3	
	61	2.46	1.72	- 3.20	1.79	9.50	35	62.9		
without information about assay	60	20.5	14.4	- 26.7	15.8	34.4	9	33.3	11.1	
	61	2.35	1.65	- 3.06	2.21	35.8	9	55.6		

Rate of success: 60,5%



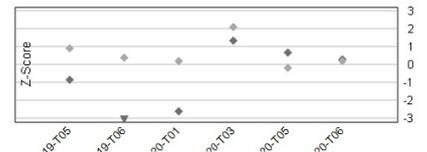
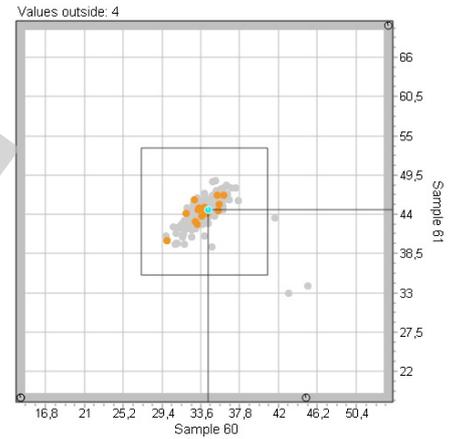
IgM Quotient (E-3, N = 132)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
BECKMAN COULTER	60	12.2	8.54 - 15.9	13.0	10.9	16	93.8	87.5		
	61	2.16	1.51 - 2.81	2.50	4.96	16	87.5			
BINDING SITE, THE	60	12.2	8.54 - 15.9	13.8	16.5	11	90.9	81.8		
	61	2.16	1.51 - 2.81	2.22	15.0	11	90.9			
SIEMENS (Dade Behring, Bayer Health)	60	12.2	8.54 - 15.9	11.4	12.1	78	93.6	91.0		
	61	2.16	1.51 - 2.81	2.04	12.6	78	94.9			
ROCHE DIAGNOSTICS	60	12.2	8.54 - 15.9	13.6	4.69	27	96.3	92.6		
	61	2.16	1.51 - 2.81	2.28	3.90	27	92.6			

Rate of success: 90,2%



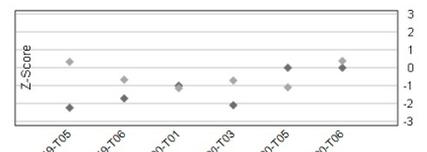
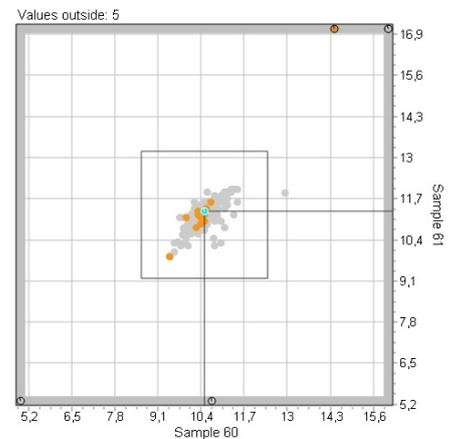
Albumin (g/l, N = 183)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
BECKMAN COULTER	60	34.0	27.2 - 40.8	33.9	4.22	16	100	100		
	61	44.4	35.5 - 53.3	44.6	3.25	16	100			
BINDING SITE, THE	60	34.0	27.2 - 40.8	32.6	5.40	12	100	100		
	61	44.4	35.5 - 53.3	43.0	5.40	12	100			
SIEMENS (Dade Behring, Bayer Health)	60	34.0	27.2 - 40.8	34.3	4.26	84	95.2	95.2		
	61	44.4	35.5 - 53.3	44.7	4.25	84	96.4			
ROCHE DIAGNOSTICS	60	34.0	27.2 - 40.8	33.9	4.96	57	96.5	96.5		
	61	44.4	35.5 - 53.3	44.3	4.29	57	96.5			
other providers	60	34.0	27.2 - 40.8	33.8	2.34	14	92.9	92.9		
	61	44.4	35.5 - 53.3	44.0	2.41	14	100			

Rate of success: 96,2%



IgG (g/l, N = 160)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
BECKMAN COULTER	60	10.5	8.61 - 12.4	10.4	1.83	16	93.8	93.8		
	61	11.2	9.18 - 13.2	11.2	2.44	16	93.8			
BINDING SITE, THE	60	10.5	8.61 - 12.4	10.7	4.04	13	84.6	84.6		
	61	11.2	9.18 - 13.2	11.1	4.95	13	100			
SIEMENS (Dade Behring, Bayer Health)	60	10.5	8.61 - 12.4	10.6	3.83	86	97.7	97.7		
	61	11.2	9.18 - 13.2	11.3	3.58	86	97.7			
ROCHE DIAGNOSTICS, ABBOTT	60	10.5	8.61 - 12.4	10.4	4.40	45	97.8	97.8		
	61	11.2	9.18 - 13.2	11.0	3.87	45	97.8			

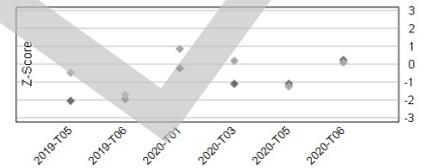
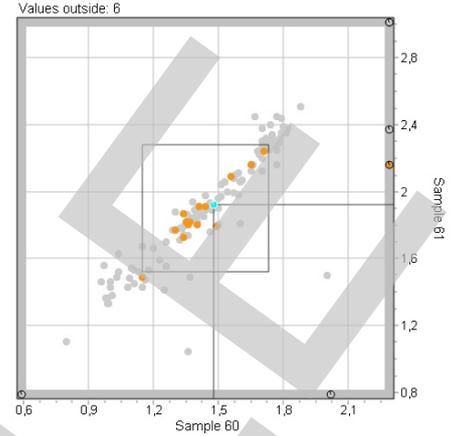
Rate of success: 96,3%





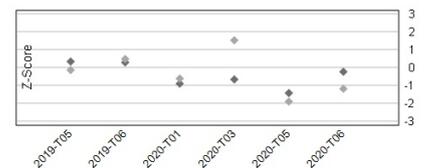
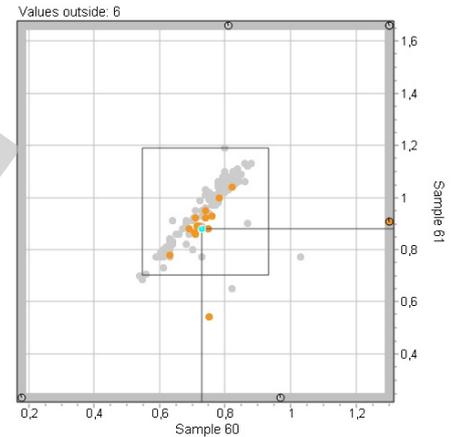
IgA (g/l, N = 132)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
BECKMAN COULTER	60	1.44	1.15 - 1.73	1.44	11.0	16	93.8	87.5		
	61	1.90	1.52 - 2.28	1.90	10.1	16	93.8			
BINDING SITE, THE	60	1.36	1.09 - 1.63	1.36	7.28	10	80.0	80.0		
	61	1.80	1.44 - 2.16	1.80	5.33	10	100			
ROCHE DIAGNOSTICS	60	1.48	1.18 - 1.78	1.48	7.09	33	93.9	93.9		
	61	1.93	1.54 - 2.32	1.93	6.84	33	93.9			
SIEMENS, analysed with CSF assay	60	1.11	0.888 - 1.33	1.11	11.2	27	88.9	88.9		
	61	1.49	1.19 - 1.79	1.49	6.64	27	92.6			
SIEMENS, analysed with Ser assay	60	1.74	1.39 - 2.09	1.74	2.59	34	94.1	94.1		
	61	2.30	1.84 - 2.76	2.30	3.35	34	97.1			
other providers	60	1.44	1.15 - 1.73	1.44	27.3	12	58.3	41.7		
	61	1.93	1.54 - 2.32	1.93	32.8	12	50.0			

Rate of success: 86,4%



IgM (g/l, N = 140)										
Collective	Sample	Target value	Target range	Participants collective			Rate (%)			
				AVG	CV	Num.	Sam.	total		
BECKMAN COULTER	60	0.740	0.548 - 0.932	0.735	5.44	16	93.8	87.5		
	61	0.948	0.702 - 1.19	0.898	6.24	16	93.8			
BINDING SITE, THE	60	0.740	0.548 - 0.932	0.629	12.6	11	81.8	72.7		
	61	0.948	0.702 - 1.19	0.812	14.7	11	81.8			
SIEMENS CSF Assay	60	0.740	0.548 - 0.932	0.764	16.6	8	87.5	87.5		
	61	0.948	0.702 - 1.19	0.938	19.4	8	87.5			
SIEMENS (Dade Behring, Bayer Health)	60	0.740	0.548 - 0.932	0.795	4.65	68	97.1	95.6		
	61	0.948	0.702 - 1.19	1.04	4.62	68	97.1			
ROCHE DIAGNOSTICS	60	0.740	0.548 - 0.932	0.649	6.93	34	97.1	94.1		
	61	0.948	0.702 - 1.19	0.833	7.08	34	94.1			
other providers (1)	60	0.740	0.548 - 0.932	0.730	0.000	3				
	61	0.948	0.702 - 1.19	0.930	2.47	3				

Rate of success: 92,1%



(1) In individual cases is a statistically valid valuation with consensus value not given, because size of the collective < 8 values.



Cerebrospinal Fluid Analysis 01 - Protein Analysis

Interpretation of the report (N = 160, Rate of success: 88,8%)

Sample 60

Collective	Blood/CSF-barrier dysfunction	inflammatory CNS process	normal CSF	implausible combination of the quotients	total
all providers	146 ●	56	4	4	210

Sample 61

Collective	inflammatory CNS process	normal CSF	implausible combination of the quotients	Blood/CSF-barrier dysfunction	total
all providers	110 ●	35 ●	9 ●	4	158

The point corresponds to the correct result, the horizontal bar corresponds to your specification, the vertical bar corresponds to your collective

normal quotient of (N = 146, Rate of success: 63,7%)

Sample 60

Collective	IgG	IgM	IgA	Albumin	total
all providers	106 ●	92 ●	48 ●	7	253

Sample 61

Collective	Albumin	IgG	IgA	IgM	total
all providers	135 ●	122	62	15	334

The point corresponds to the correct result, the horizontal bar corresponds to your specification, the vertical bar corresponds to your collective

intrathecal synthesis of (N = 142, Rate of success: 76,8%)

Sample 60

Collective	IgG	IgA	IgM	no evidence of intrathecal immunoglobulin synthesis	total
all providers	1	52 ●	2	74 ●	129

Sample 61

Collective	IgM	IgA	no evidence of intrathecal immunoglobulin synthesis	IgG	total
all providers	111 ●	58 ●	18 ●	15	202

The point corresponds to the correct result, the horizontal bar corresponds to your specification, the vertical bar corresponds to your collective