Survey Report

2022 - 3

Survey Specimens

The homogeneity and stability of all specimens were checked before and/or during shipment and no irregularities were noted.
The suitability tests were performed by the laboratories of the Universitätsspital Zürich (University Hospital Zurich) (http://www.uzl.usz.ch/).
The following survey specimens were produced specifically for MQ by a sub-contractor:
B1 Strep A Test, B2 Uricult, H4 Parasitic Hematology, K14 tumor marker

Determination of target values

For each target value, the type of determination per ISO17043: 2010 B2.1 is indicated (column "type"):
a   Value known due to production.
b   Certified reference value for use with special specimens
c   Reference value determined by analysis
d   Consensus values of expert laboratories
e   Consensus values of the participants

For methods groups with more than 9 participants, consensus values of the participants ("e") are generally determined.
In order to calculate the target values, we use the mean value of the method group. Values that differ more than 1.5 times the QUALAB-tolerance are outliers and are not used to calculate the target value. Starting point for the elimination of outliers are the values of our suitability tests.
In order to provide all participants with target values that are as meaningful as possible, other methods may also be applied for smaller method groups.

Uncertainty of the determined target values
The standard uncertainty (u_x) is calculated using the following formula (ISO13528):
u_x = (target value/100) * (1.25/square root of "number of participants") * %CV
- u_x has the same unit as the target value
- u_x can be compared with the standard deviation of the participants' collective (SD=target value*%CV/100)
- For participant numbers >18, the standard uncertainty (u_x) is significantly lower than the scatter of the collective participants and can be neglected.

QUALAB and MQ tolerances

For all mandatory analyzes, QUALAB tolerances are used (www.qualab.ch, external quality control). For non-mandatory analyzes, the tolerances are specified by MQ's survey specimen leader.

If the determined uncertainty, u_x, of the target value is greater than 15% of the QUALAB or MQ tolerance, the letter indicating the type of target detection is marked with an additional star (example "e*"). Thereby, we are alerting the participants to the fact that the uncertainty of the target value can have an impact on the evaluation.

Graphics
The results are shown graphically as follows:
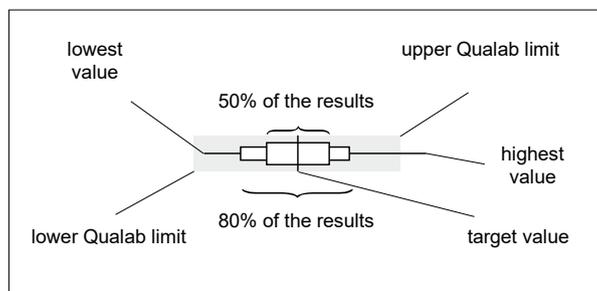
Comparison of Devices
The data in this report allows you to compare the performance of different devices. However, remember to consider the following:
- The chemical control K1 is a ready-to-use commercial control serum. Even if the specimen is of human origin, it is possible that matrix effects occur. These are device-specific and result in different target values.
- Only one specimen was measured. Since the scatter of the results is dependent on the nature of the specimen (matrix effects) and on the signal strength, the determined coefficient of variations (CV in %) cannot be applied generally.
- A large number of runaways is due to administrative errors (wrong unit, results mixed up) or to operator errors (wrong sample, not correctly taken up in solution, not mixed well) and has nothing to do with the type of device.
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Zürich, 4.10.2022

Dr. R. Fried
Survey Director

Publication of this report or any portion thereof without our prior written consent is not permitted. The original is archived at www.mqzh.ch
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INR
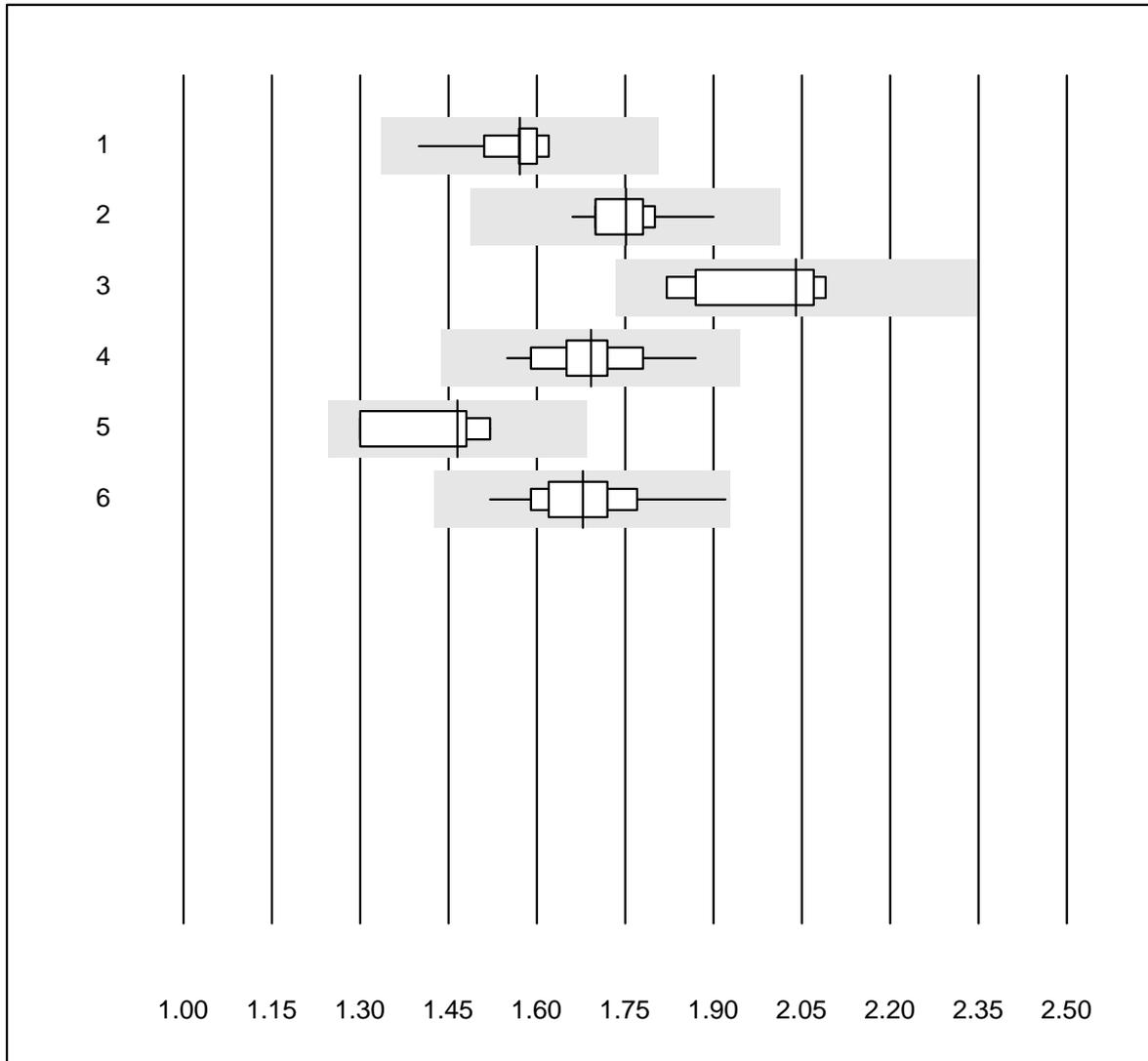
QUALAB tolerance : 15 %

INR ()

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Innovin	14	100.0	0.0	0.0	1.57	3.7	e
2	Neoplastin R	12	100.0	0.0	0.0	1.75	3.7	e
3	Neoplastin Plus	5	100.0	0.0	0.0	2.04	6.3	e*
4	Recombiplastin 2G	12	100.0	0.0	0.0	1.69	5.2	e
5	Eurolyser	4	100.0	0.0	0.0	1.47	6.7	e*
6	Other methods	14	100.0	0.0	0.0	1.68	5.8	e

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Fibrinogen OA

QUALAB tolerance : 15 %   Fibrinogen OA (g/l)
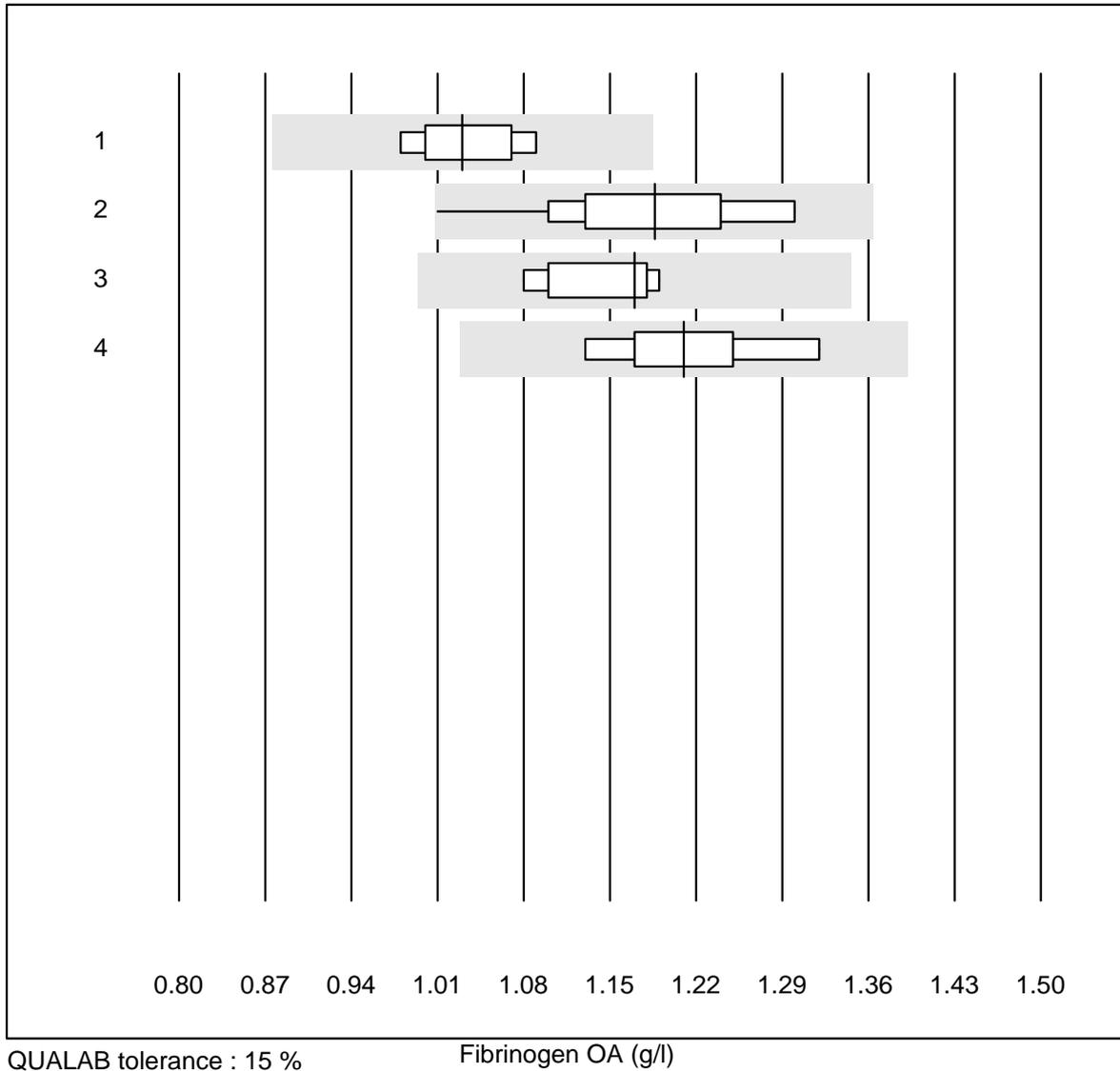
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Siemens Thrombin	6	100.0	0.0	0.0	1.03	4.4	e
2	Stago/STA	16	100.0	0.0	0.0	1.19	6.5	e
3	Fibrinogen Q.F.A.	5	100.0	0.0	0.0	1.17	4.4	e*
4	Other methods	7	100.0	0.0	0.0	1.21	5.0	e*

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Activated Prothrombin Time
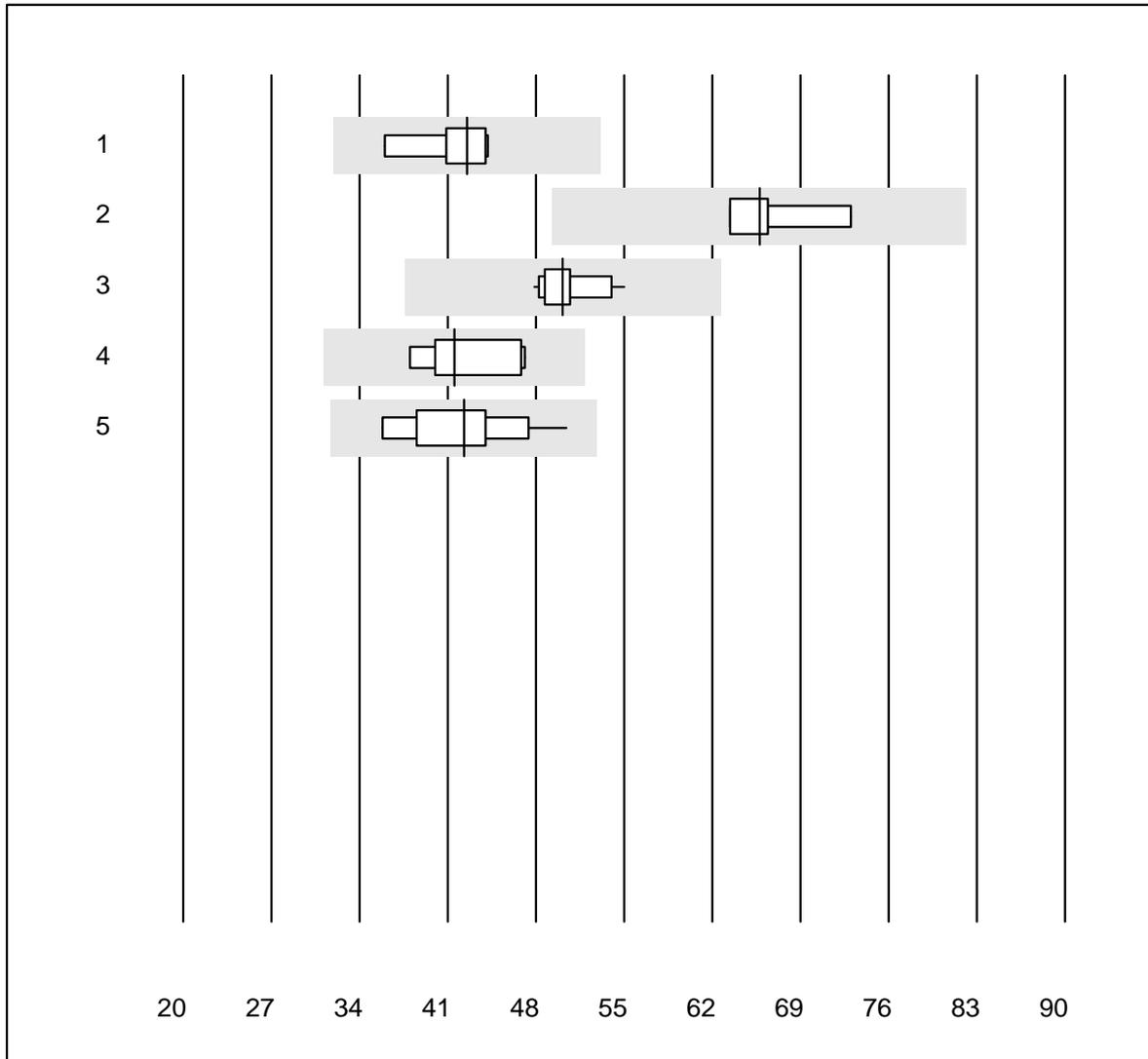
QUALAB tolerance : 25 %   Activated Prothrombin Time (Sek)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Actin FS	7	100.0	0.0	0.0	42.5	6.7	e
2	Pathromtin SL	4	100.0	0.0	0.0	65.8	6.3	e*
3	Stago/STA	15	100.0	0.0	0.0	50.1	4.1	e
4	aPTT-SP	7	100.0	0.0	0.0	41.5	8.1	e*
5	Other methods	10	100.0	0.0	0.0	42.3	11.2	e*

One result was submitted but not published because the method group was too small. (<4 results per group)

INR CoaguChek

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        1.00    1.06    1.12    1.18    1.24    1.30    1.36    1.42    1.48    1.54    1.60
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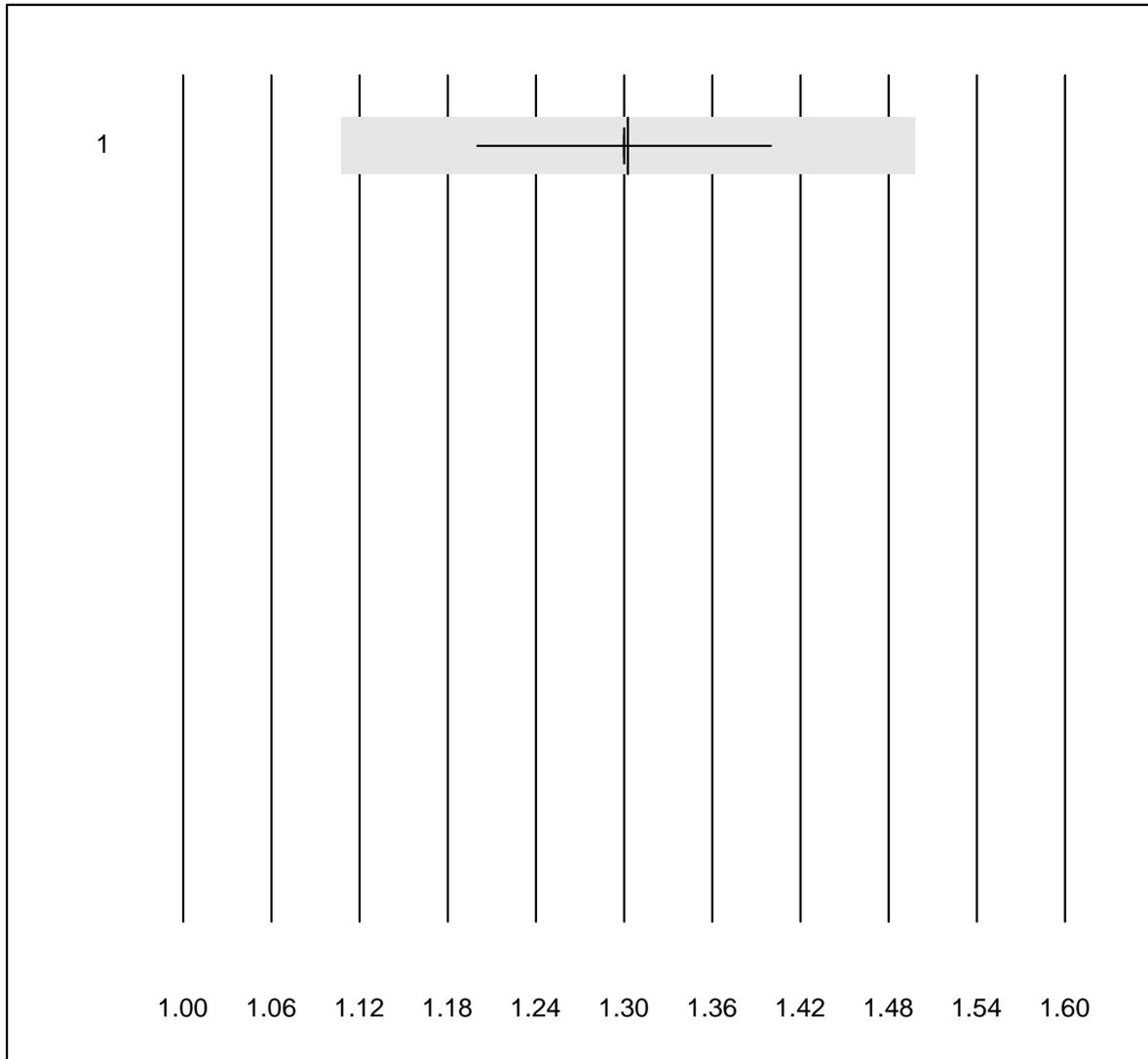
QUALAB tolerance : 15 %   INR CoaguChek ()

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	CoaguChek Pro II	742	99.1	0.0	0.9	1.3	1.5	e

Prothrombin time NT
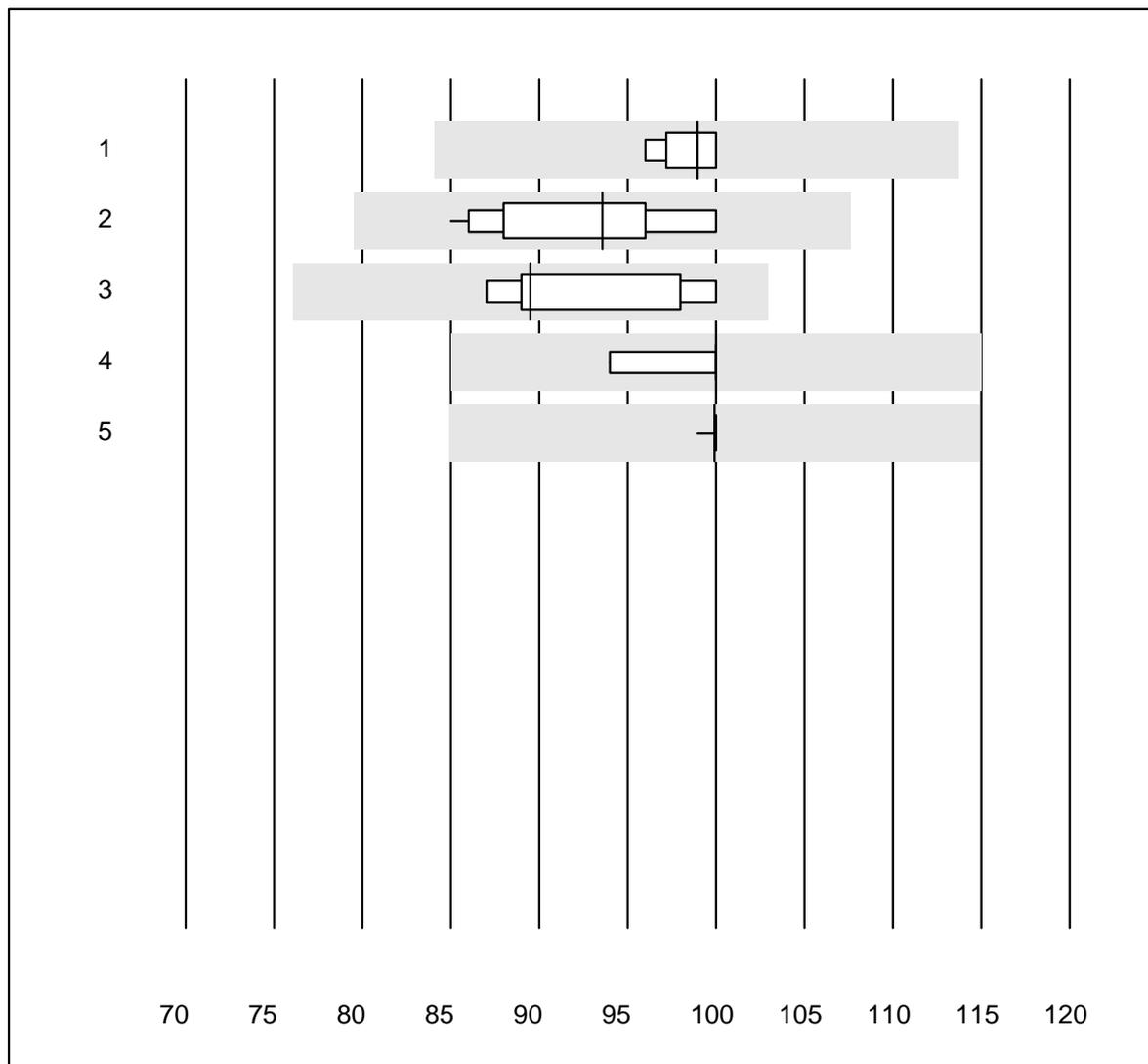
QUALAB tolerance : 15 %   Prothrombin time NT (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Innovin	10	100.0	0.0	0.0	99	1.6	e
2	Neoplastin R	12	100.0	0.0	0.0	94	5.5	e
3	Neoplastin Plus	6	100.0	0.0	0.0	90	5.9	e*
4	Recombiplastin 2G	8	87.5	0.0	12.5	100	2.3	e
5	Other methods	13	100.0	0.0	0.0	100	0.3	e

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Faktor II
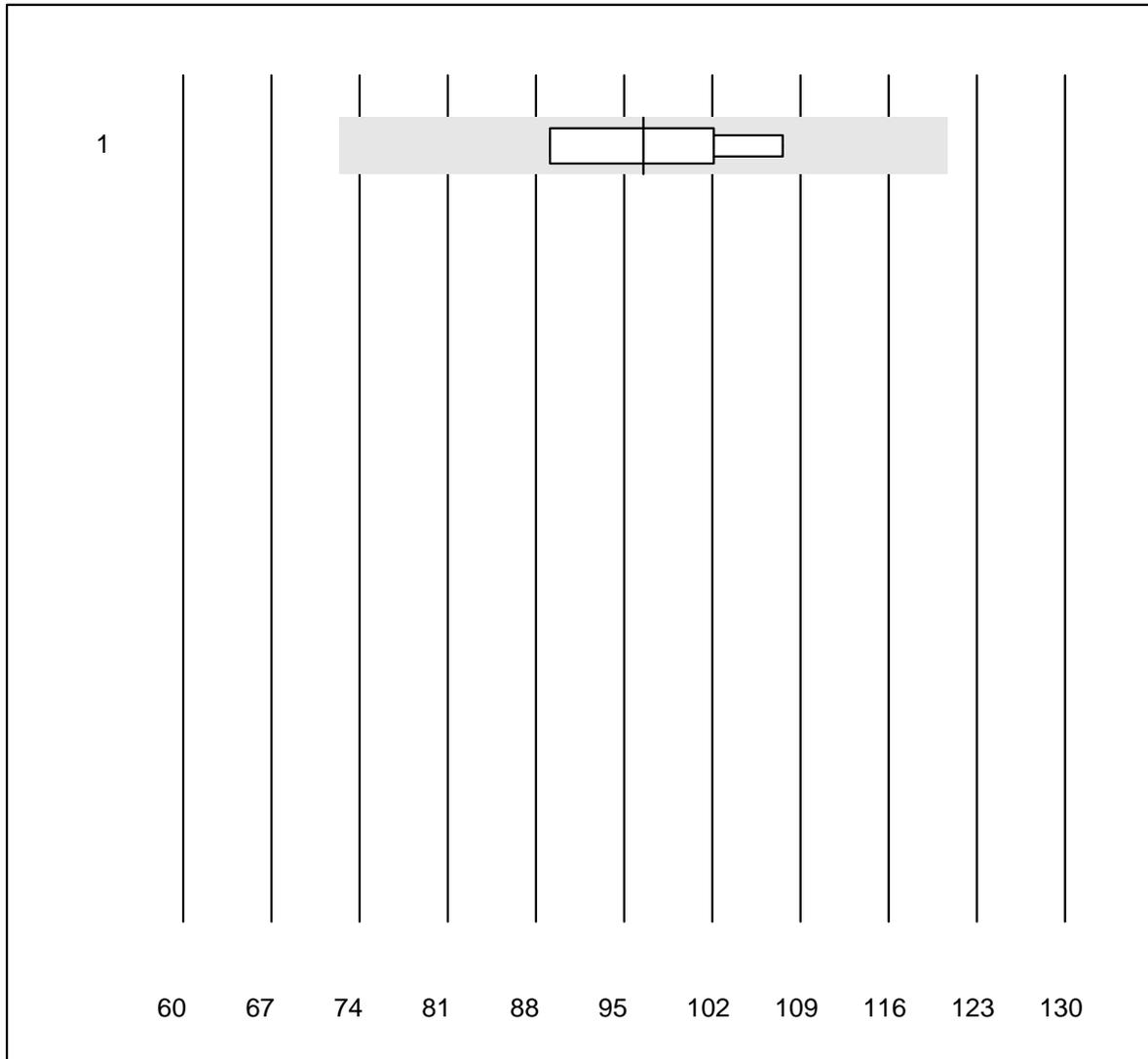
MQ tolerance : 25 %

Faktor II (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	4	100.0	0.0	0.0	96.6	9.1	e*

Fibrinogen N
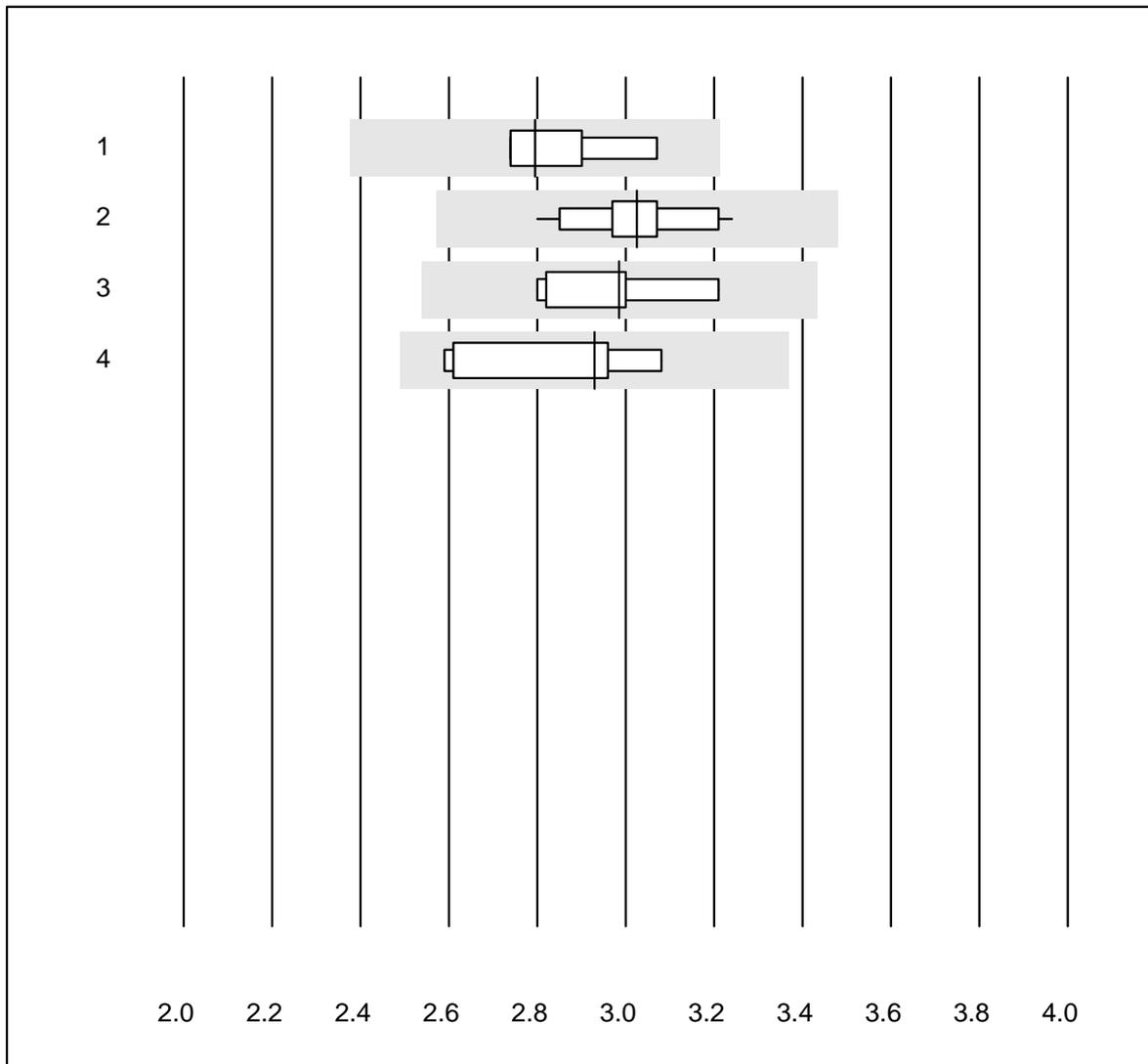
QUALAB tolerance : 15 % Fibrinogen N (g/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Siemens Thrombin	6	100.0	0.0	0.0	2.80	4.6	e*
2	Stago/STA	17	100.0	0.0	0.0	3.03	4.0	e
3	Fibrinogen Q.F.A.	8	100.0	0.0	0.0	2.99	4.6	e
4	Other methods	8	100.0	0.0	0.0	2.93	6.7	e*

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)
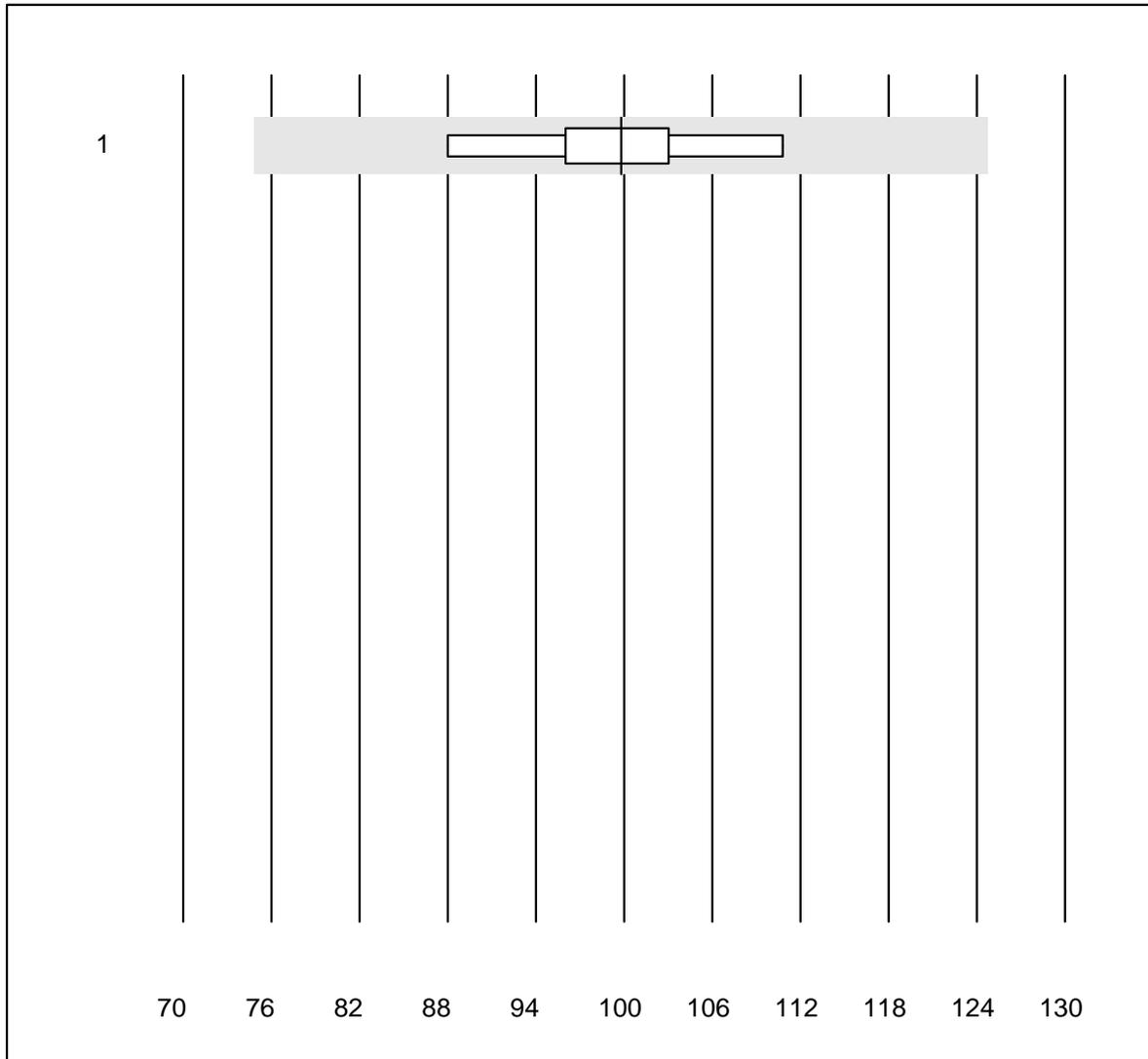
Faktor V

MQ tolerance : 25 %

Faktor V (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	8	100.0	0.0	0.0	99.8	6.9	e

aPTT N

QUALAB tolerance : 25 %

aPTT N (Sek)
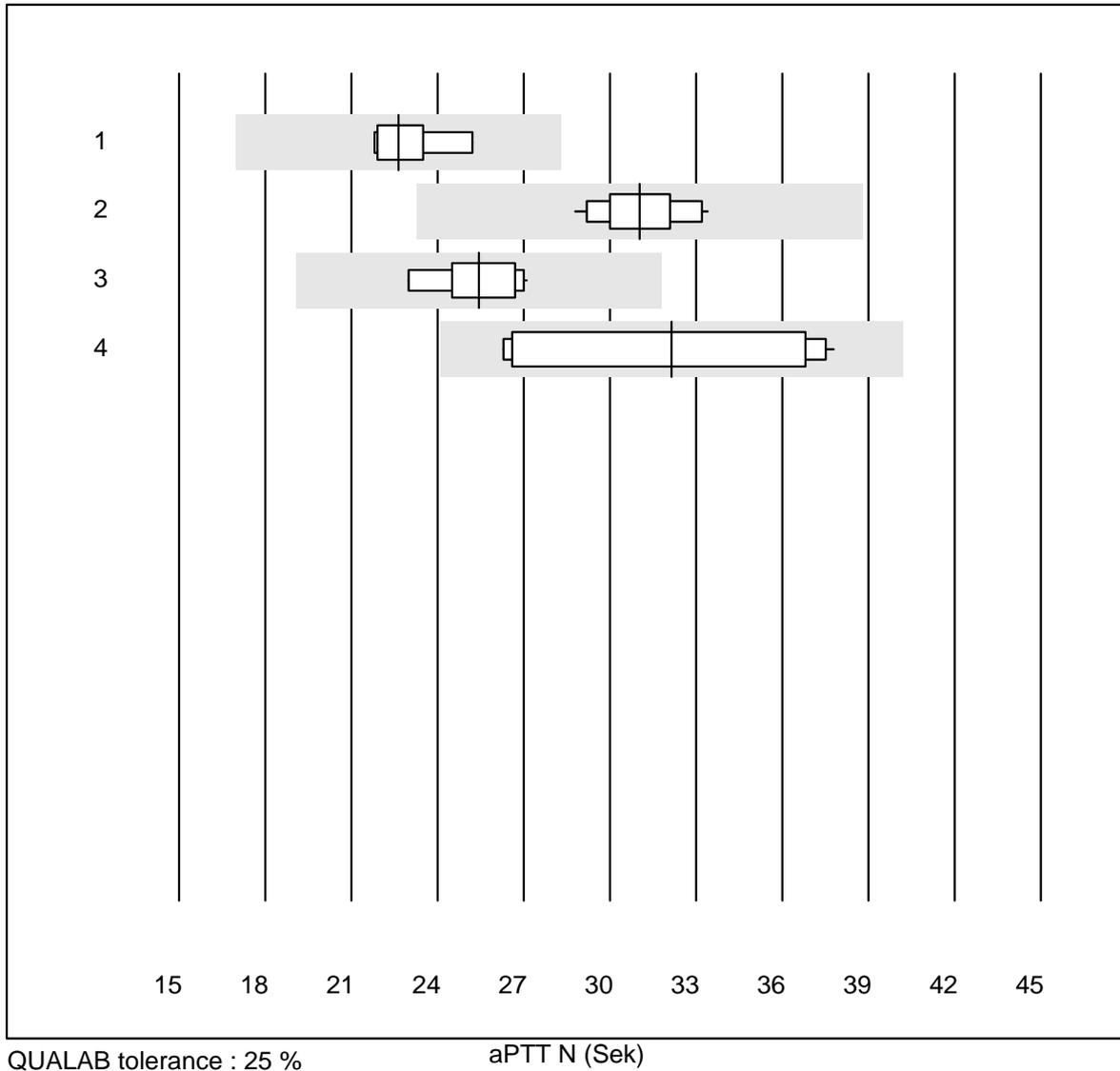
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Actin FS	8	100.0	0.0	0.0	22.7	5.2	e
2	Stago/STA	19	100.0	0.0	0.0	31.0	4.3	e
3	aPTT-SP	10	100.0	0.0	0.0	25.4	5.4	e
4	Other methods	10	100.0	0.0	0.0	32.2	15.8	e*

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Faktor VII

70   76   82   88   94   100   106   112   118   124   130
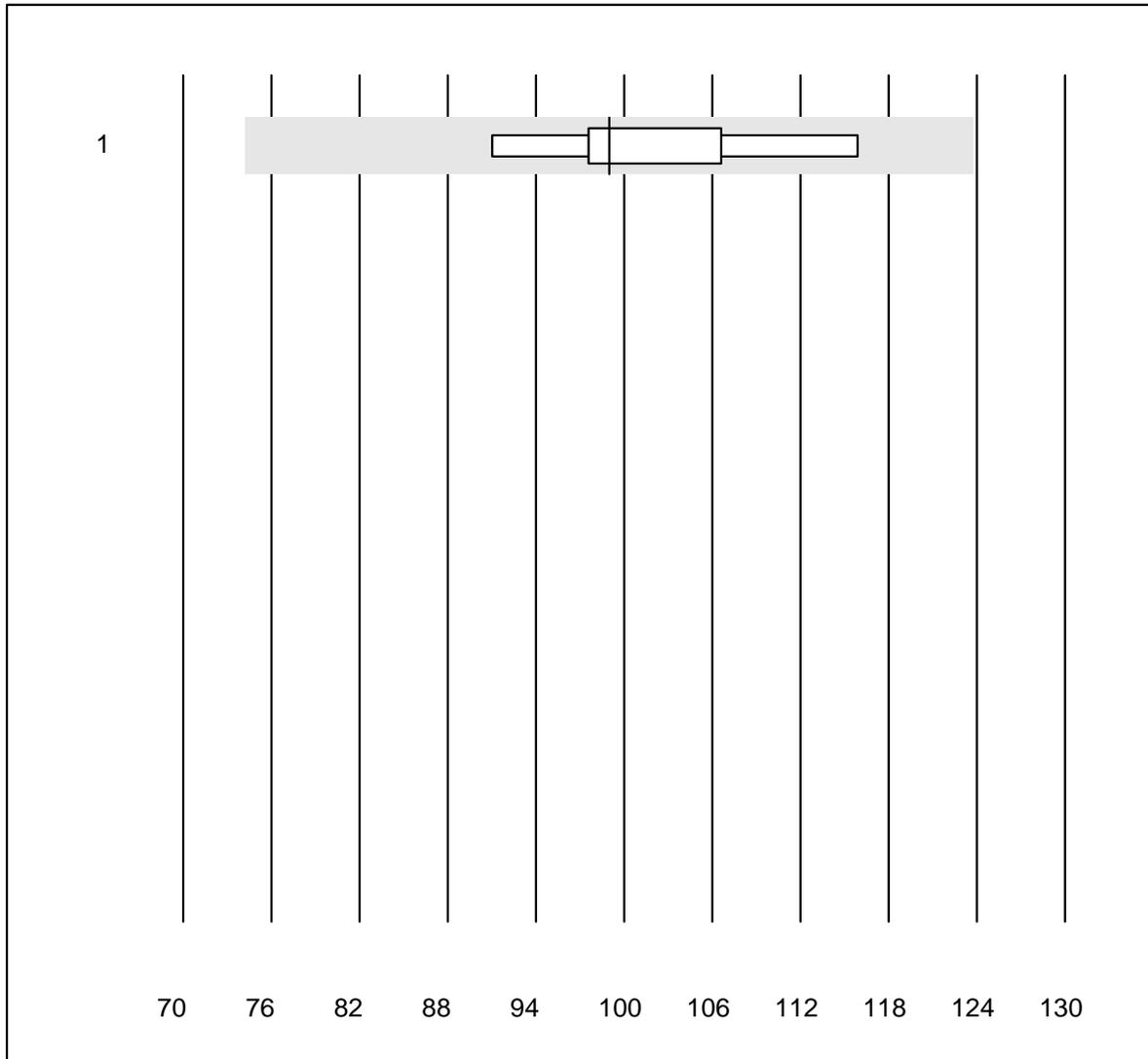
MQ tolerance : 25 %
Faktor VII (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	5	100.0	0.0	0.0	99.0	9.3	e*

Prothrombin time HT
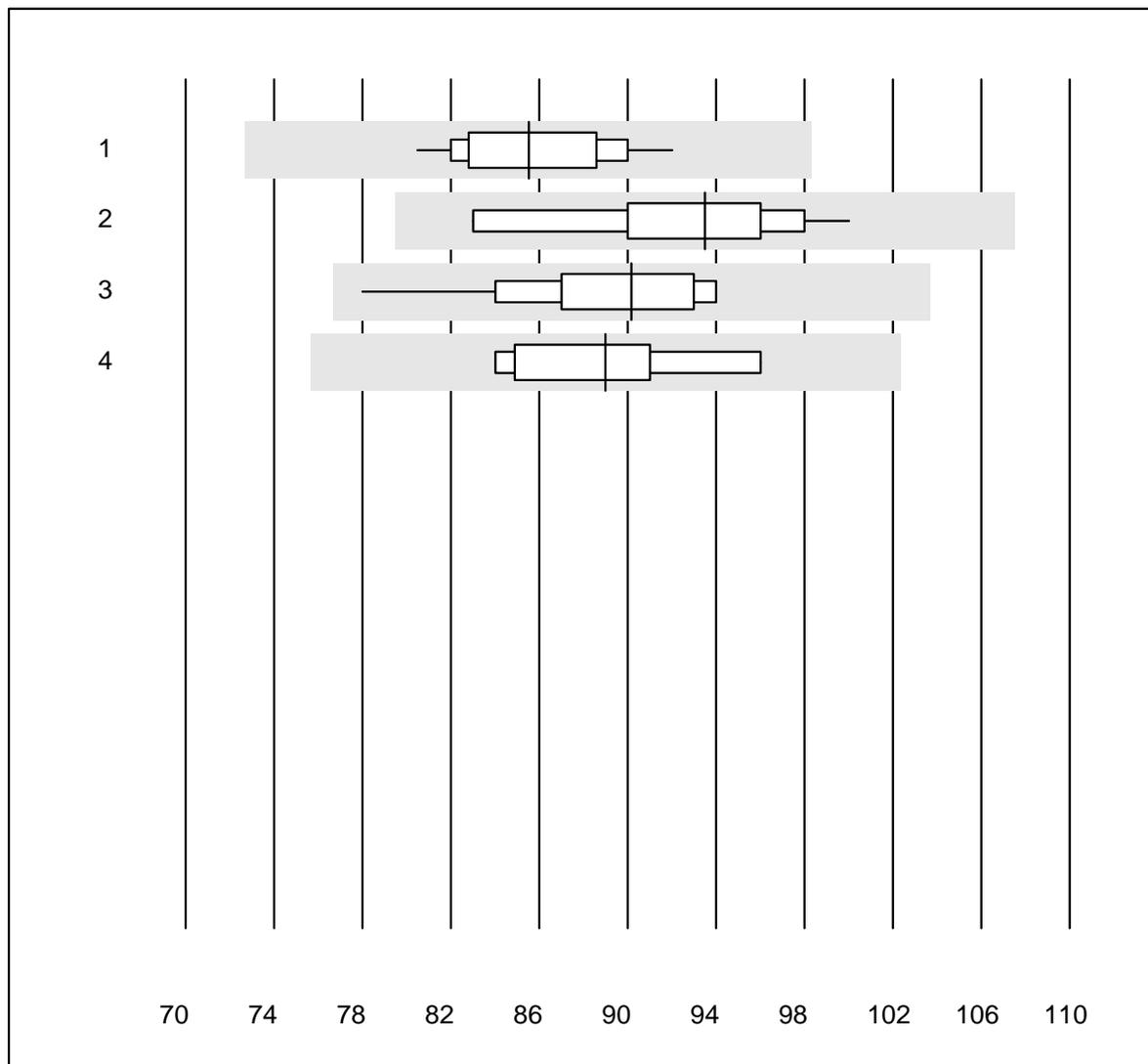
QUALAB tolerance : 15 %   Prothrombin time HT (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Innovin	11	100.0	0.0	0.0	86	4.2	e
2	Neoplastin R	10	100.0	0.0	0.0	93	5.5	e
3	Recombiplastin 2G	12	100.0	0.0	0.0	90	5.4	e
4	Other methods	8	100.0	0.0	0.0	89	4.5	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Anti-FXa (unfrakt-Heparin)
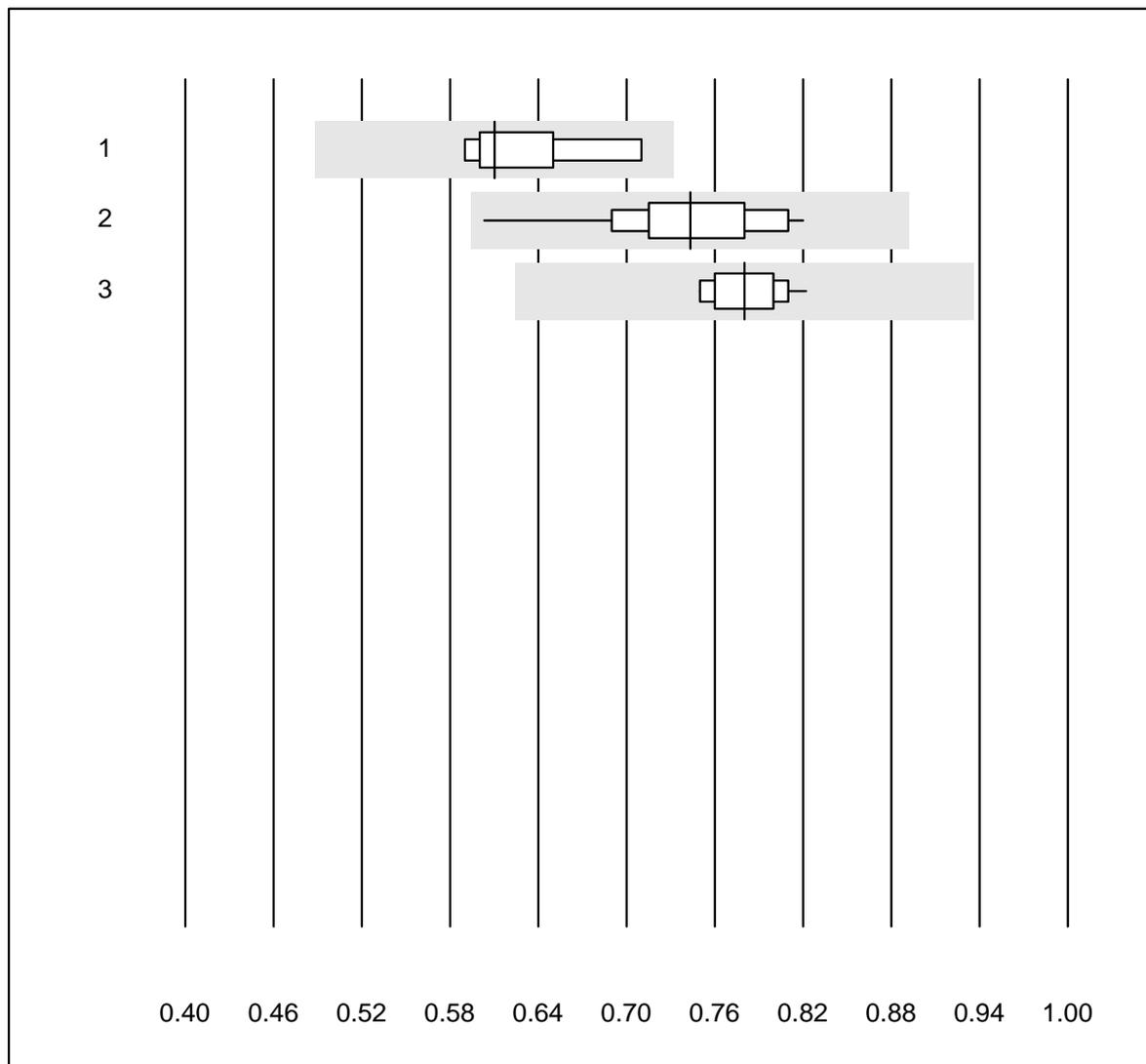

MQ tolerance : 20 %

Anti-FXa (unfrakt-Heparin) (IU/ml)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Stago/STA	7	100.0	0.0	0.0	0.61	6.5	e*
2	ACL	17	100.0	0.0	0.0	0.74	7.0	e
3	Other methods	11	100.0	0.0	0.0	0.78	3.1	e

Fibrinogen H

QUALAB tolerance : 15 %   Fibrinogen H (g/l)
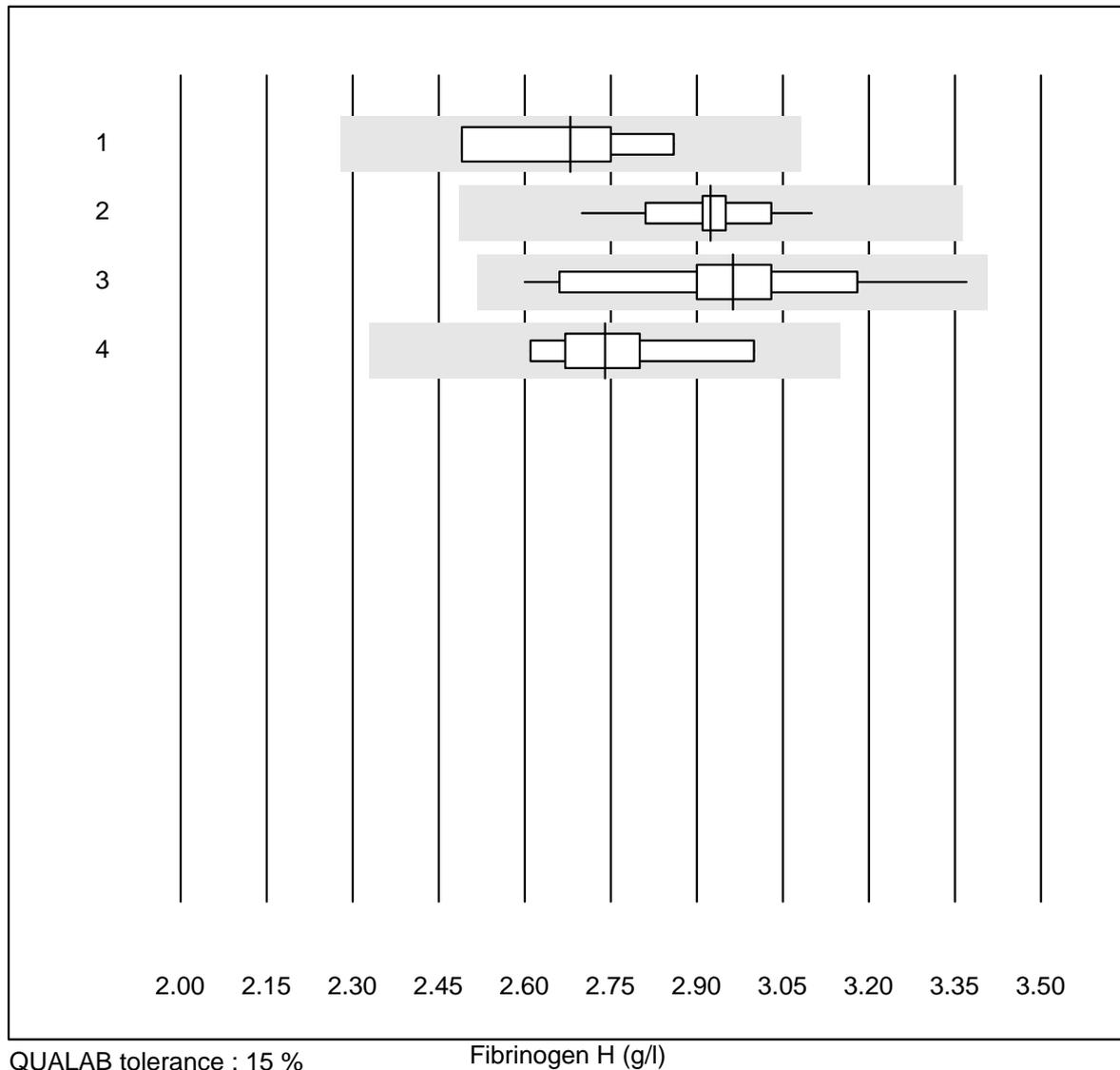
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Siemens Thrombin	4	100.0	0.0	0.0	2.68	6.0	e*
2	Stago/STA	13	100.0	0.0	0.0	2.92	3.3	e
3	Fibrinogen Q.F.A.	14	100.0	0.0	0.0	2.96	6.6	e
4	Other methods	8	100.0	0.0	0.0	2.74	5.0	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

aPTT H
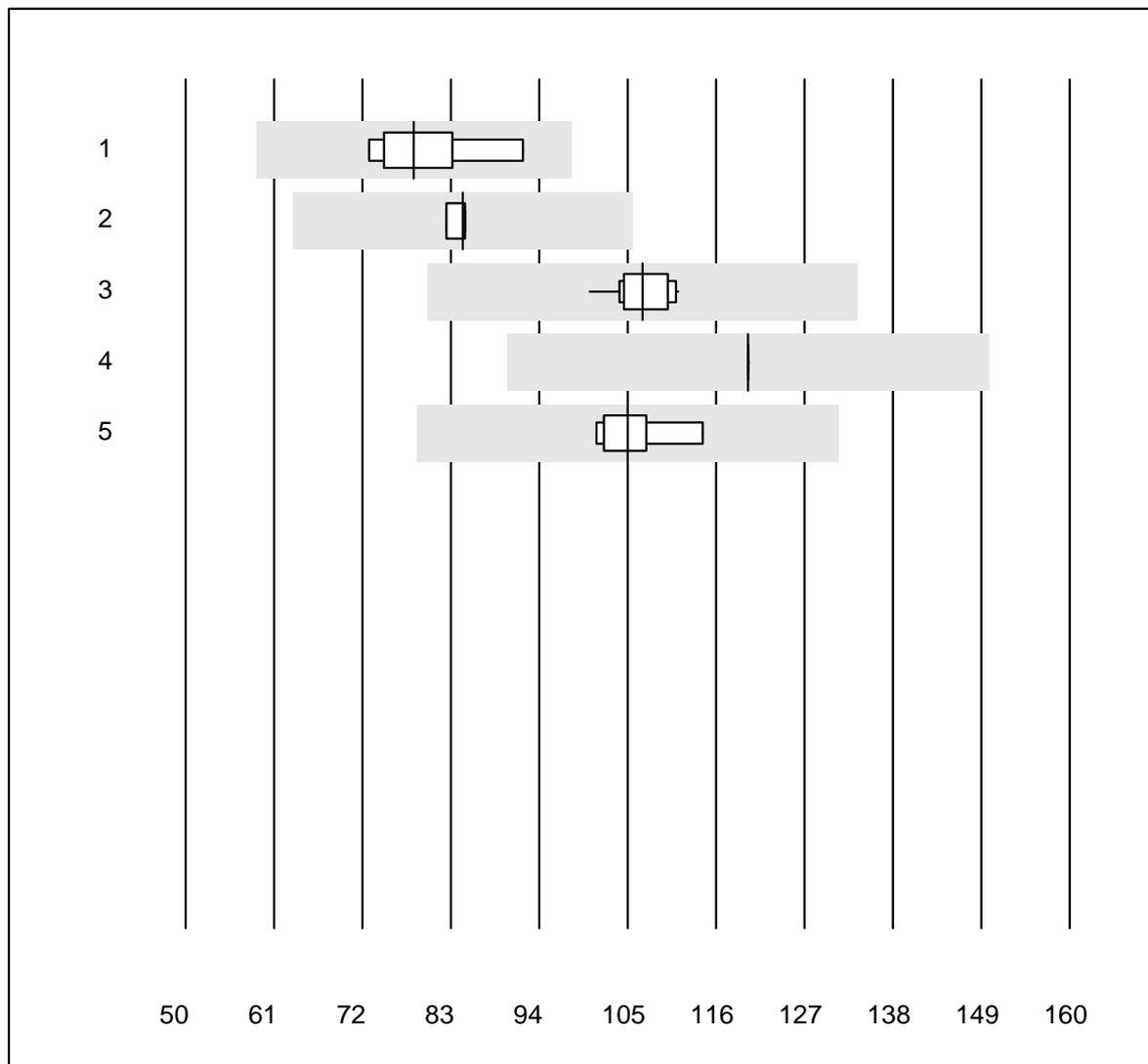
QUALAB tolerance : 25 %

aPTT H (Sek)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Actin FS	5	100.0	0.0	0.0	78.4	9.6	e*
2	Actin FSL	4	100.0	0.0	0.0	84.5	1.3	e
3	Stago/STA	11	100.0	0.0	0.0	106.9	3.3	e
4	aPTT-SP	13	100.0	0.0	0.0	120.0	0.0	e
5	Other methods	5	100.0	0.0	0.0	105.0	5.0	e

One result was submitted but not published because the method group was too small. (<4 results per group)

D-dimer

QUALAB tolerance : 21 %　　　　D-dimer (mg/l)
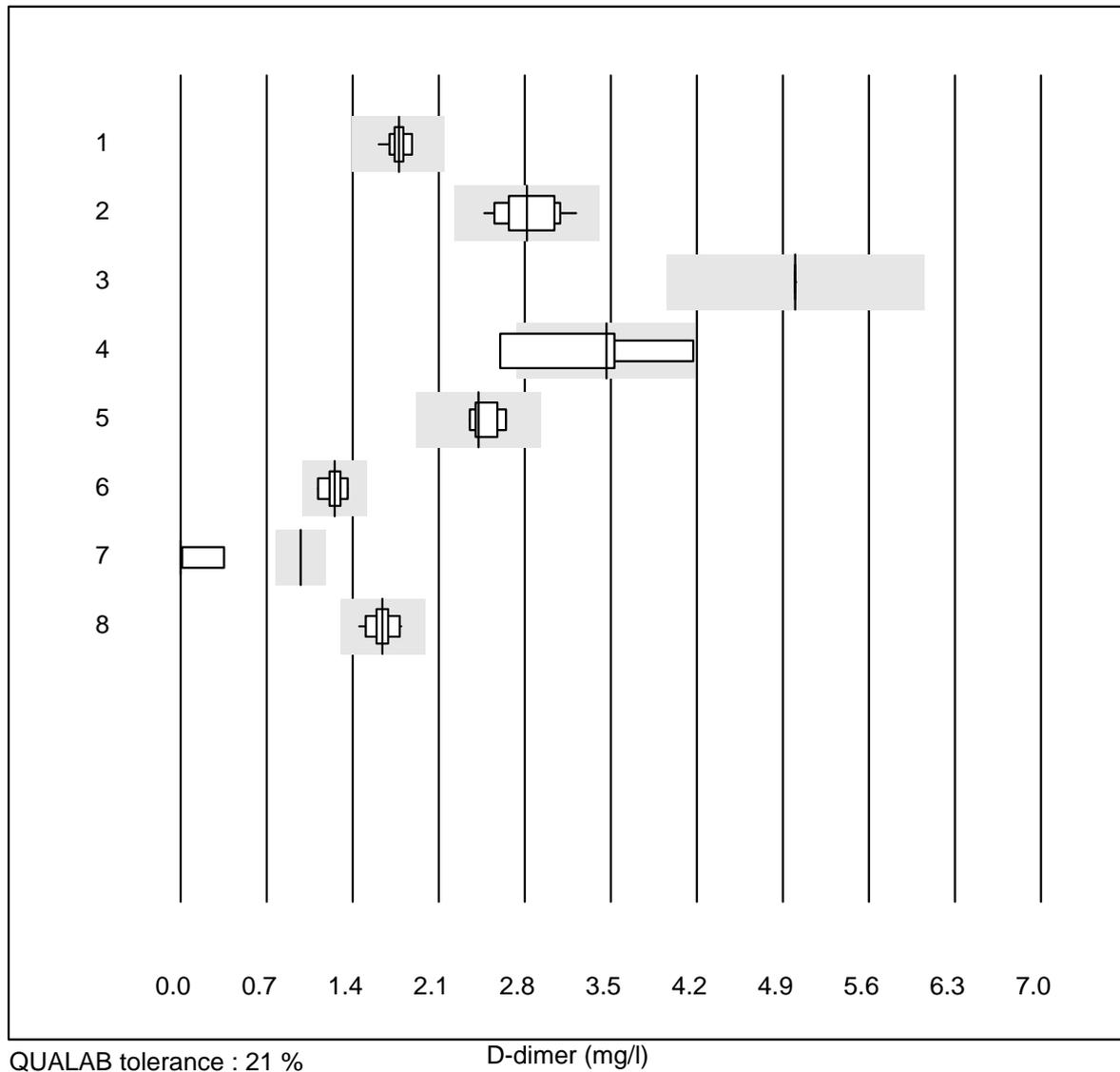
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	STA Liatest	15	100.0	0.0	0.0	1.77	4.0	e
2	Siemens Innovance	11	100.0	0.0	0.0	2.82	8.1	e
3	Pathfast	9	88.9	0.0	11.1	5.00	0.0	e
4	Eurolyser	4	75.0	25.0	0.0	3.46	18.9	e*
5	ACL	9	100.0	0.0	0.0	2.42	4.5	e
6	AQT 90 FLEX	9	100.0	0.0	0.0	1.25	5.9	e
7	Lumira Dx	4	0.0	0.0	100.0	0.97	0.0	e
8	VIDAS	16	100.0	0.0	0.0	1.64	5.5	e

7 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

CoaguChek APTT

25.0   27.5   30.0   32.5   35.0   37.5   40.0   42.5   45.0   47.5   50.0
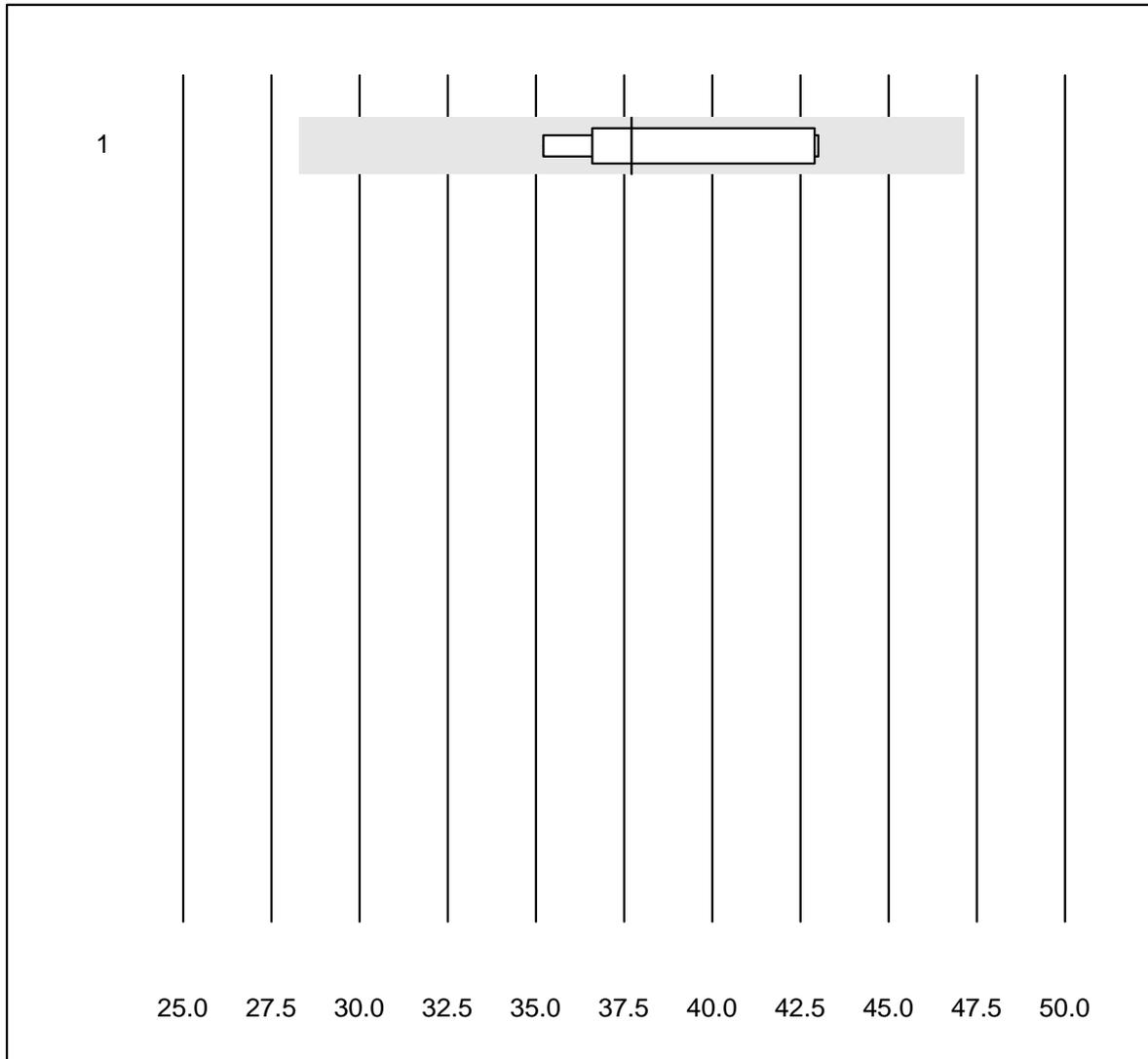
QUALAB tolerance : 25 %   CoaguChek APTT (Sek)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	CoaguChek Pro II	5	100.0	0.0	0.0	37.7	9.3	e*

INR CCXS

| | 2.40 | 2.55 | 2.70 | 2.85 | 3.00 | 3.15 | 3.30 | 3.45 | 3.60 | 3.75 | 3.90 |
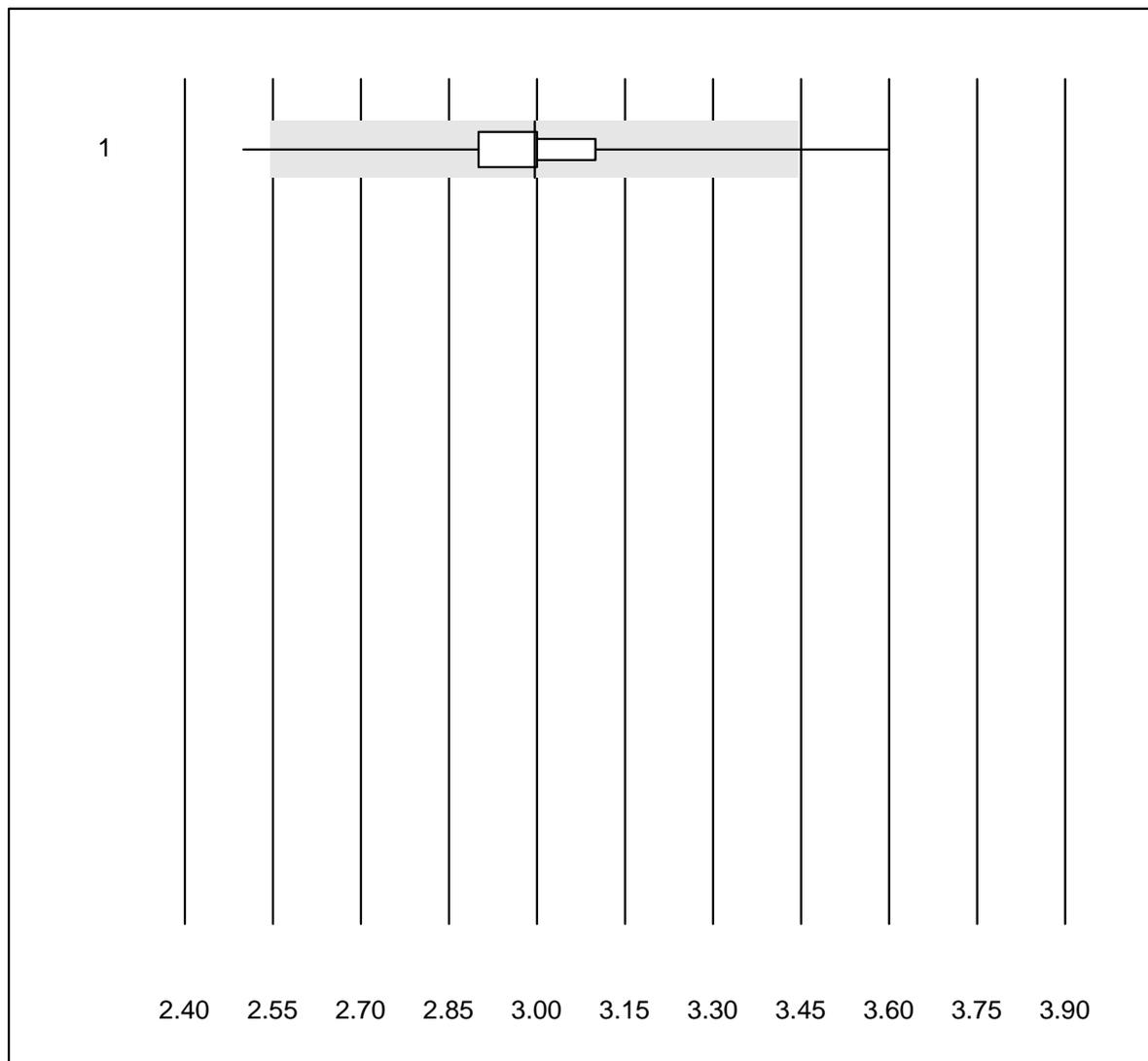
QUALAB tolerance : 15 % INR CCXS ()

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	CoaguChek XS	1548	98.9	0.5	0.6	3.0	3.4	e

INR HC

| | 1.30 | 1.37 | 1.44 | 1.51 | 1.58 | 1.65 | 1.72 | 1.79 | 1.86 | 1.93 | 2.00 |
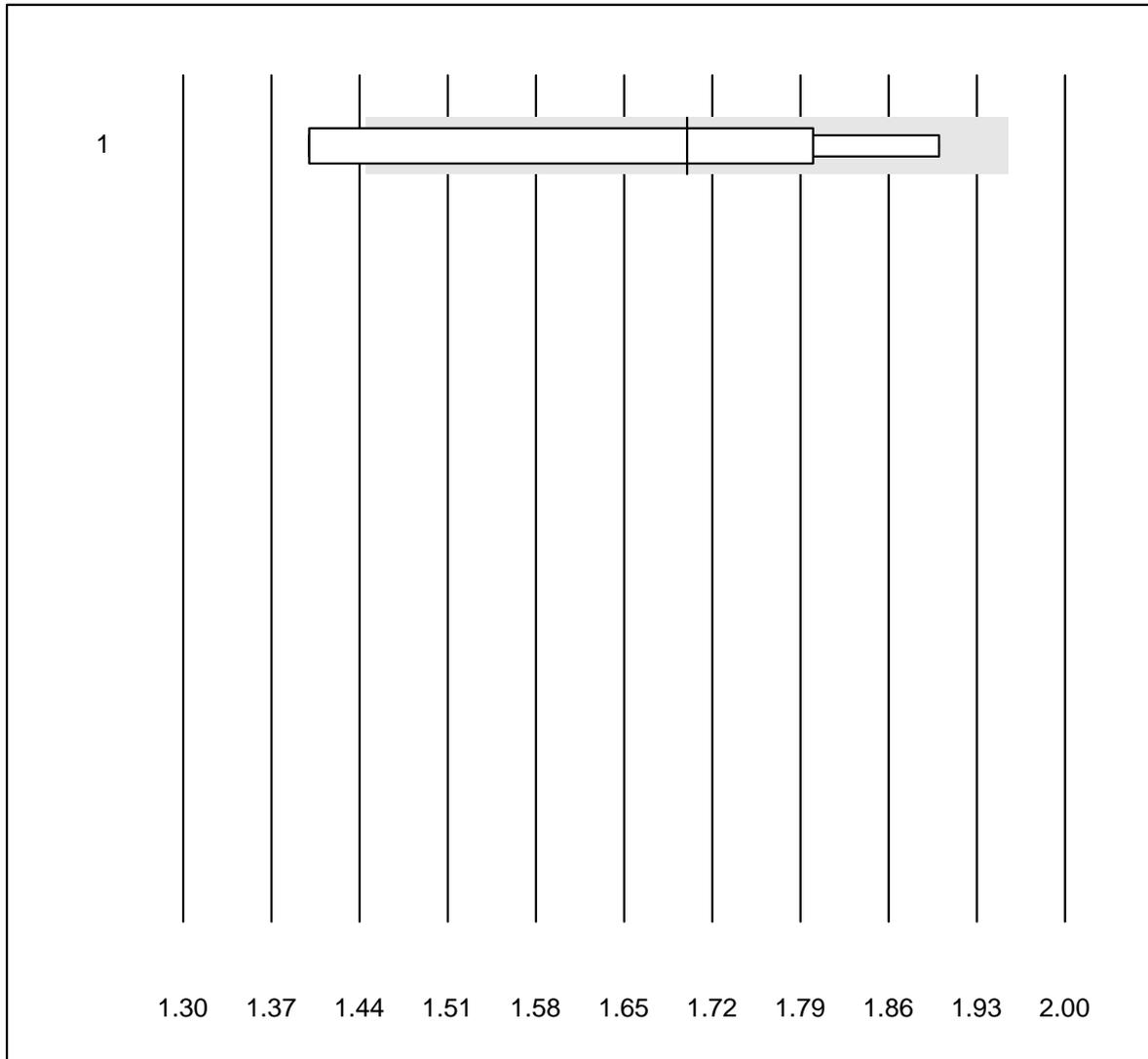
QUALAB tolerance : 15 %

INR HC ()

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Hemochron j.	8	62.5	25.0	12.5	1.7	11.8	e*

INR MI
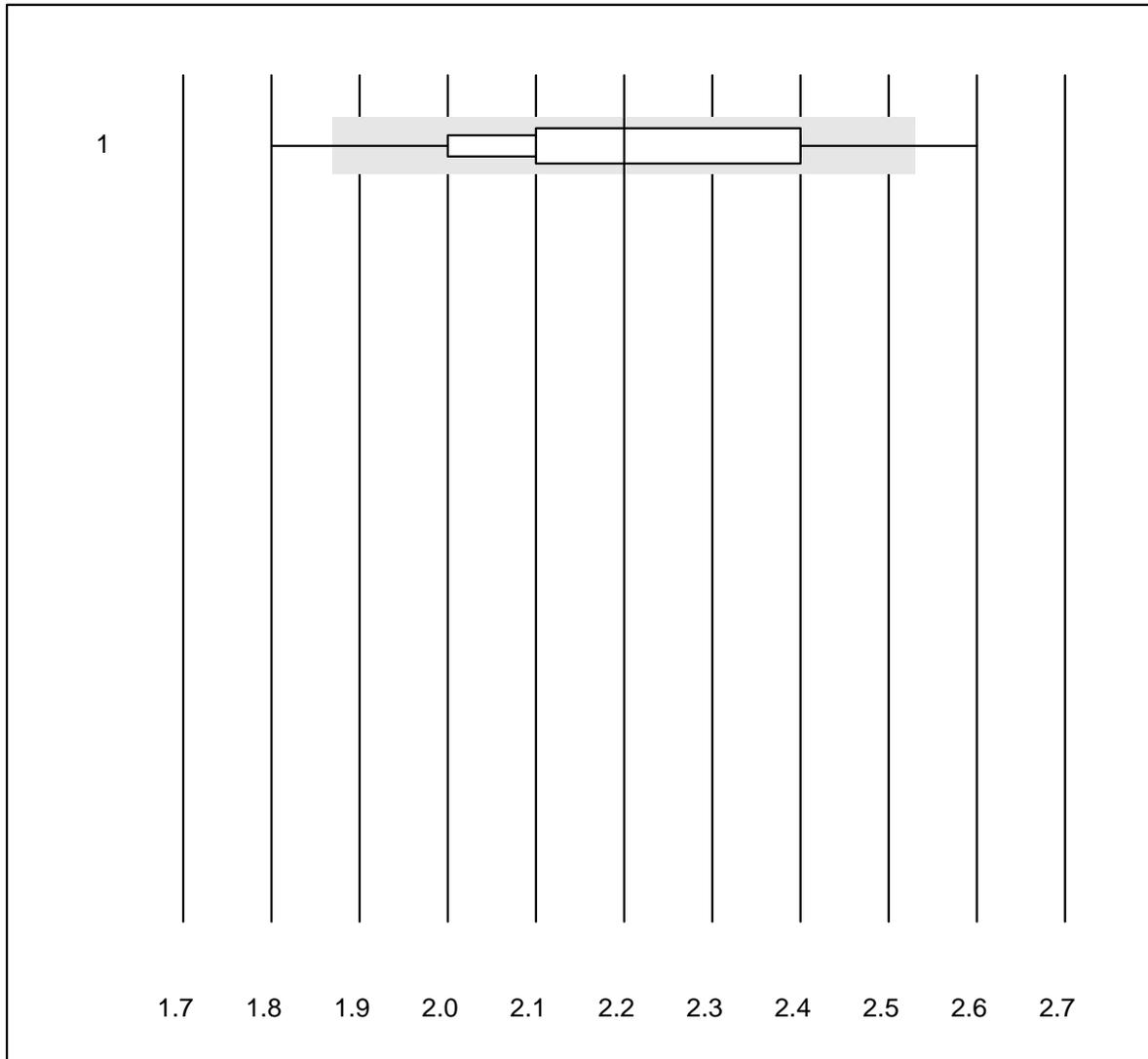
QUALAB tolerance : 15 %

INR MI ()

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	MicroINR	129	78.3	5.4	16.3	2.2	8.0	e

INR Xprecia

1
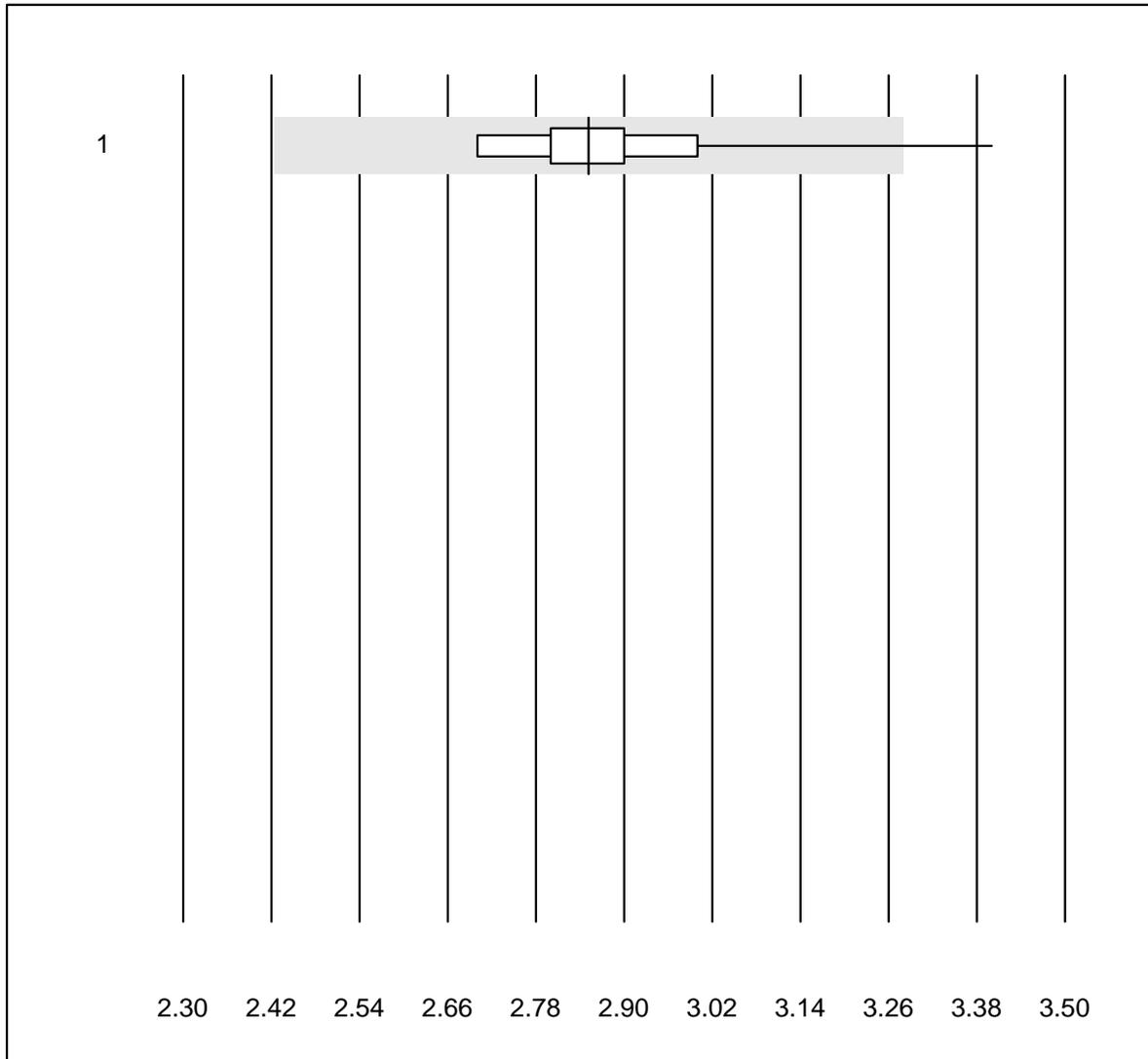
QUALAB tolerance : 15 %

INR Xprecia ()

2.30   2.42   2.54   2.66   2.78   2.90   3.02   3.14   3.26   3.38   3.50

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Xprecia	57	92.9	1.8	5.3	2.9	4.8	e

INR Lumira Dx

1.10 1.16 1.22 1.28 1.34 1.40 1.46 1.52 1.58 1.64 1.70
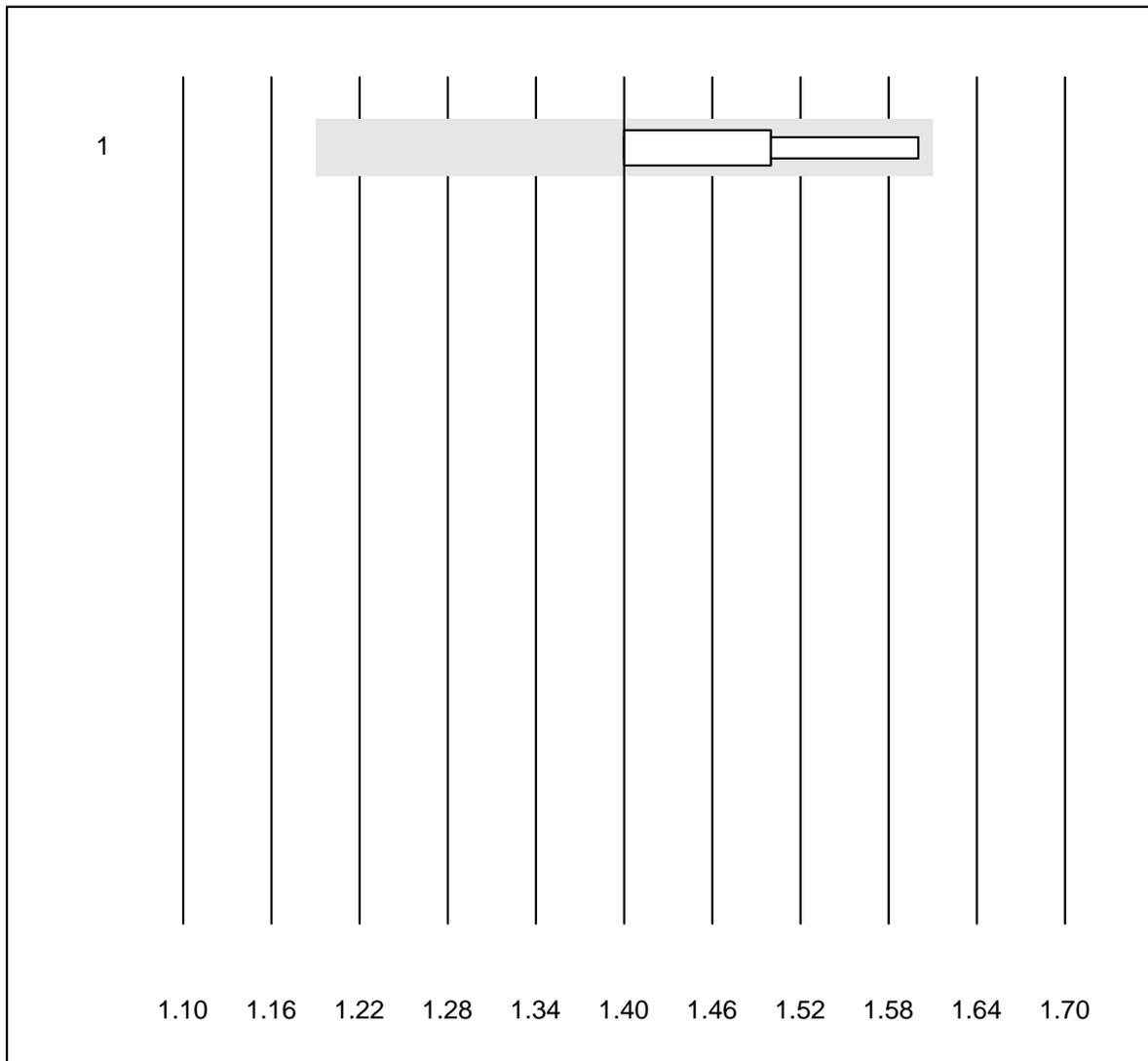
QUALAB tolerance : 15 %   INR Lumira Dx ()

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Lumira Dx	9	100.0	0.0	0.0	1.4	5.0	e
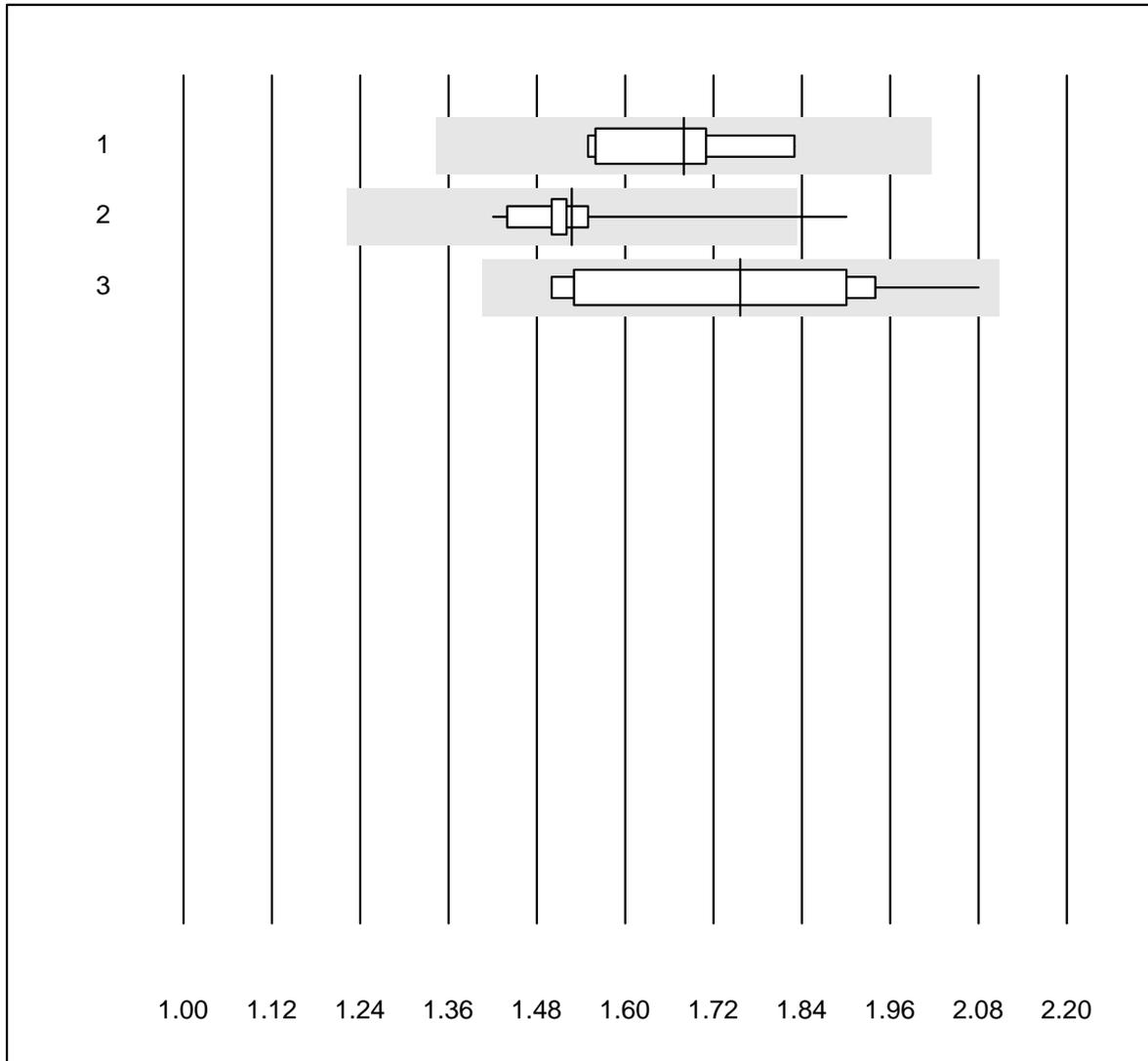
Anti-FXa (Rivaroxaban)
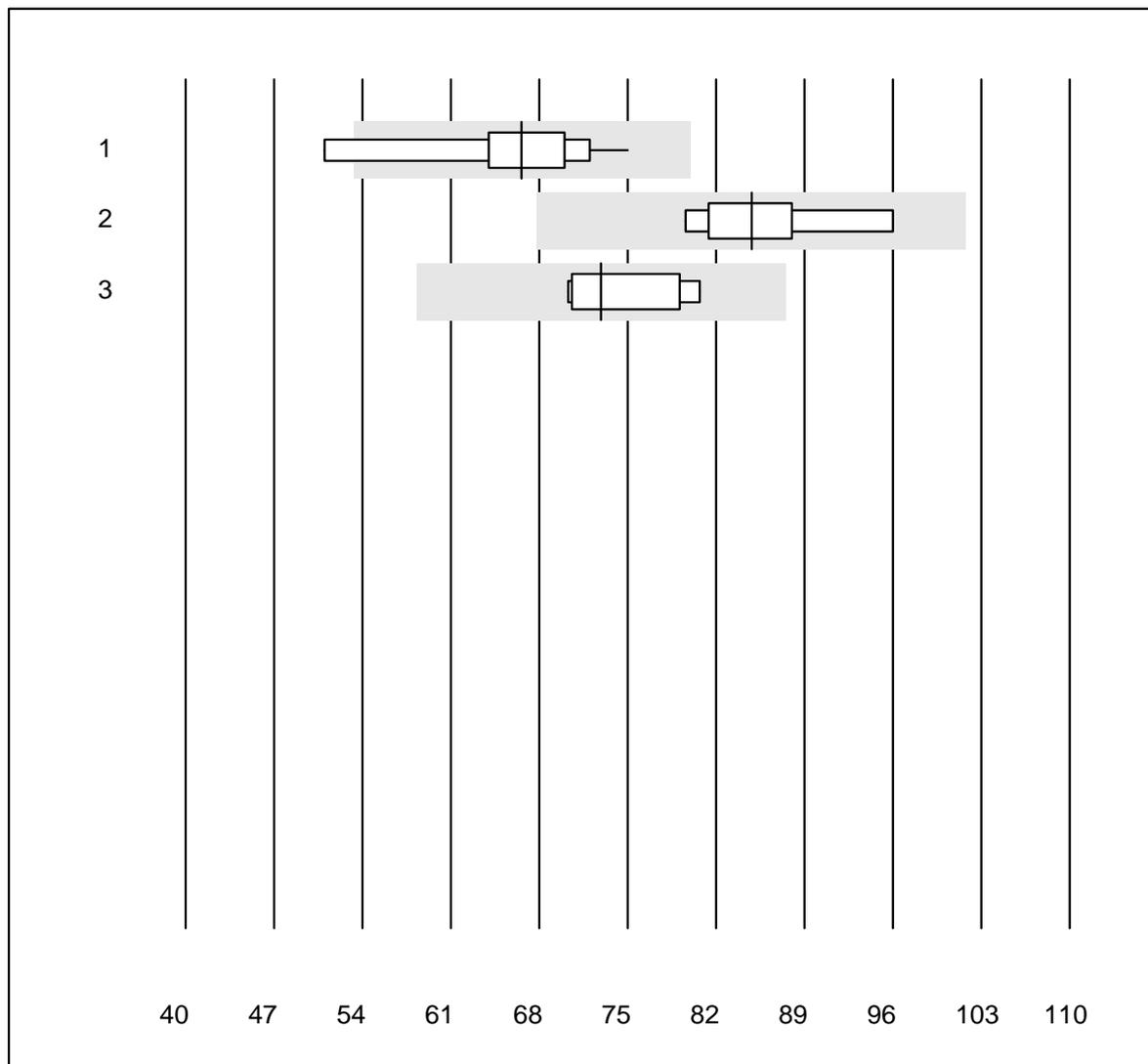
MQ tolerance : 20 %

Anti-FXa (Rivaroxaban) (µg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Stago/STA	10	90.0	10.0	0.0	66.60	9.8	e*
2	ACL	5	100.0	0.0	0.0	84.80	7.5	e*
3	Other methods	7	100.0	0.0	0.0	72.90	5.8	e

Anti-FXa (Apixaban)

MQ tolerance : 20 %

Anti-FXa (Apixaban) (µg/l)
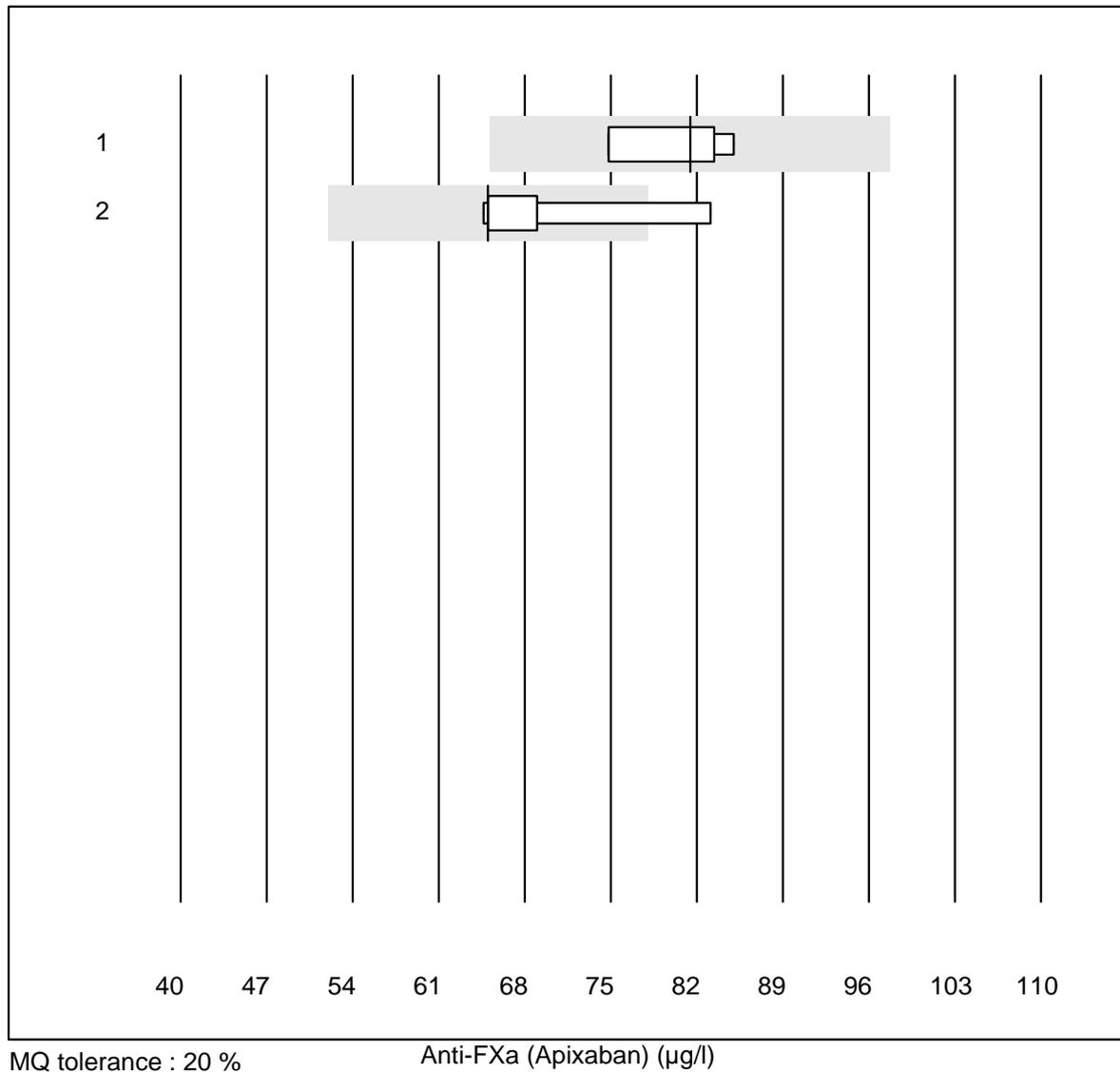
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ACL	4	100.0	0.0	0.0	81.45	5.6	e*
2	Other methods	5	80.0	20.0	0.0	65.00	11.4	e*

Anti-FXa (Edoxaban)
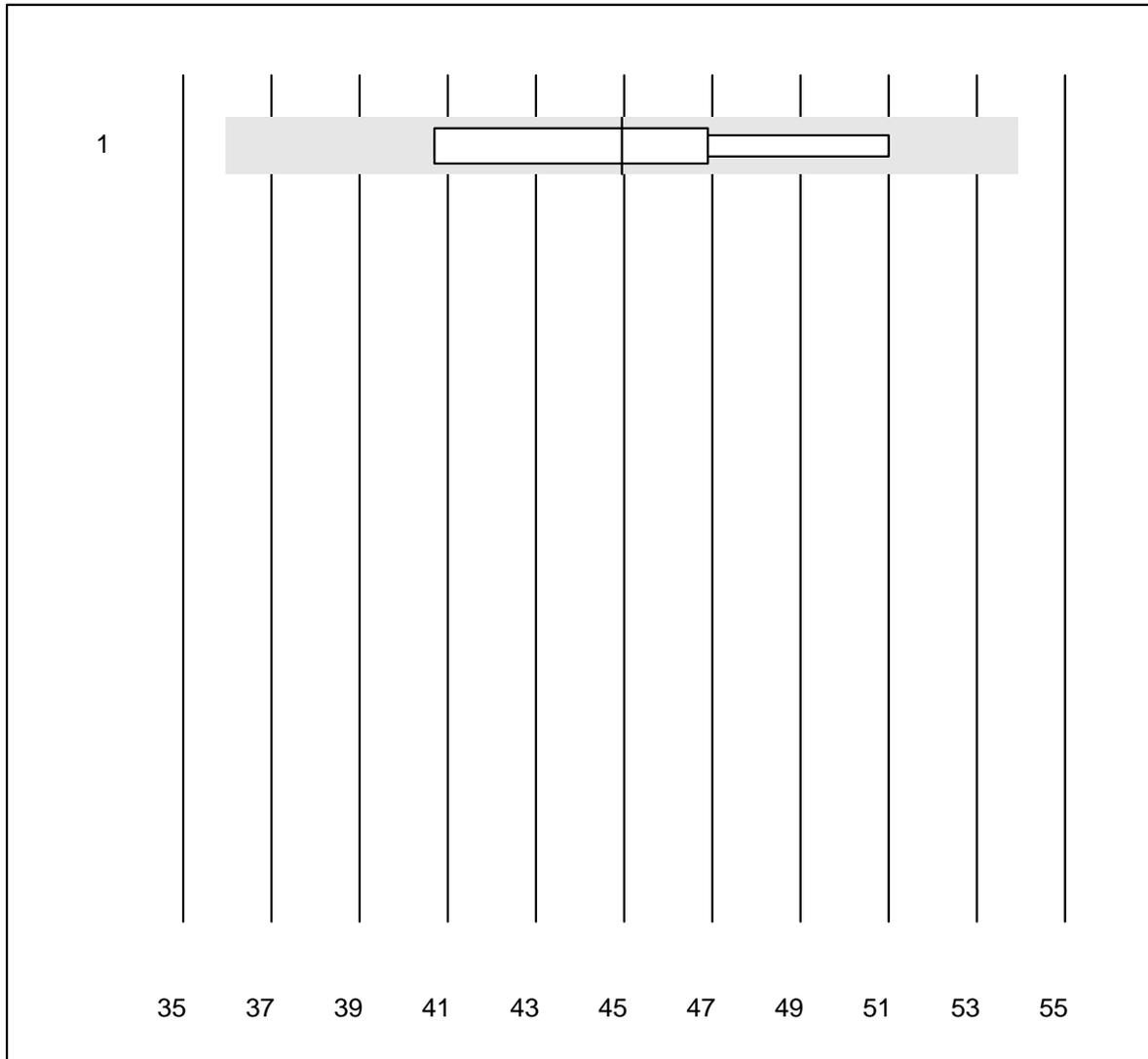
MQ tolerance : 20 %

Anti-FXa (Edoxaban) (µg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	4	100.0	0.0	0.0	44.95	10.0	e*

Anti-FIIa (Dabigatran)
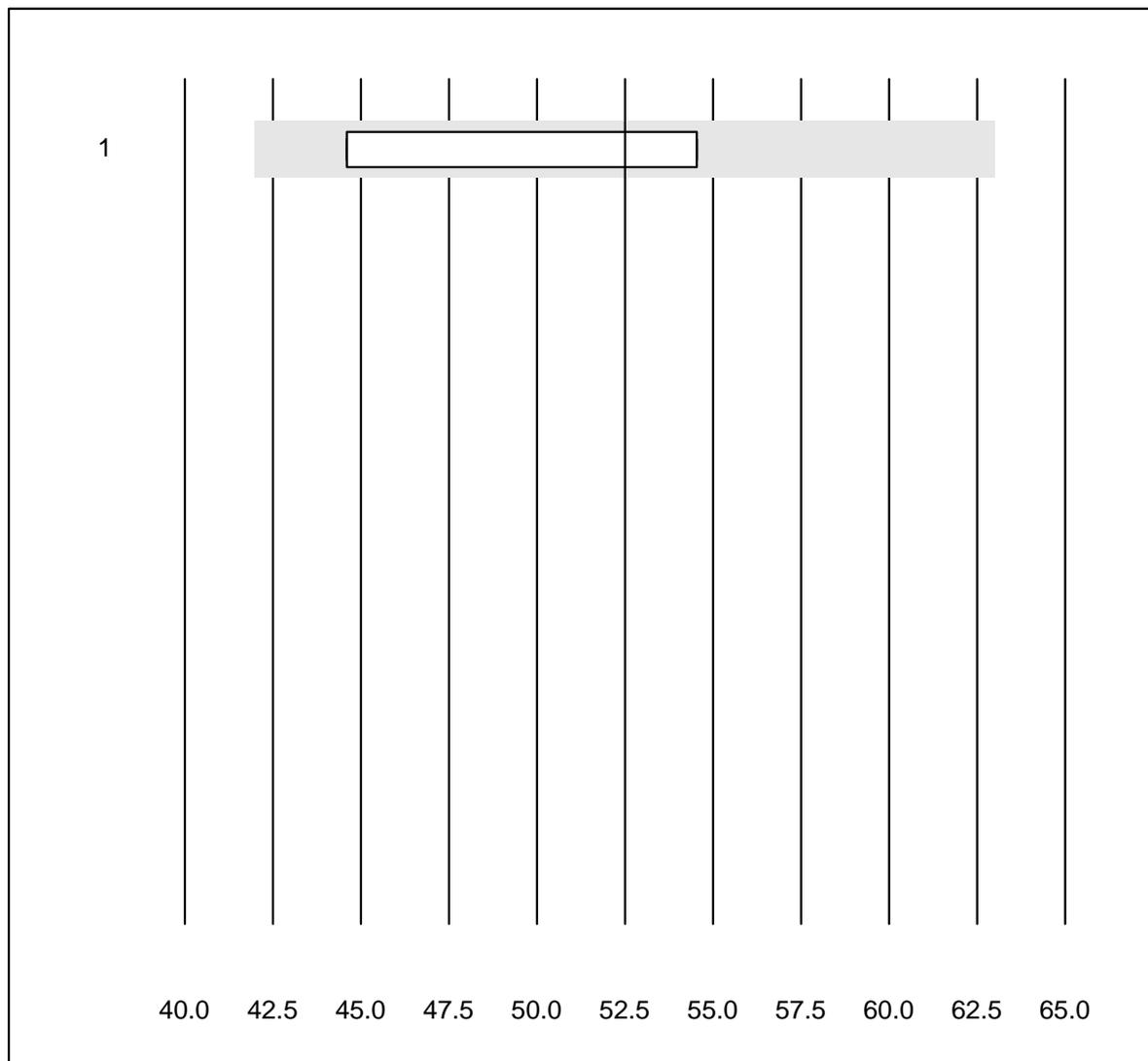
MQ tolerance : 20 %   Anti-FIIa (Dabigatran) (µg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	4	75.0	0.0	25.0	52.50	10.0	e*

Hemoglobin
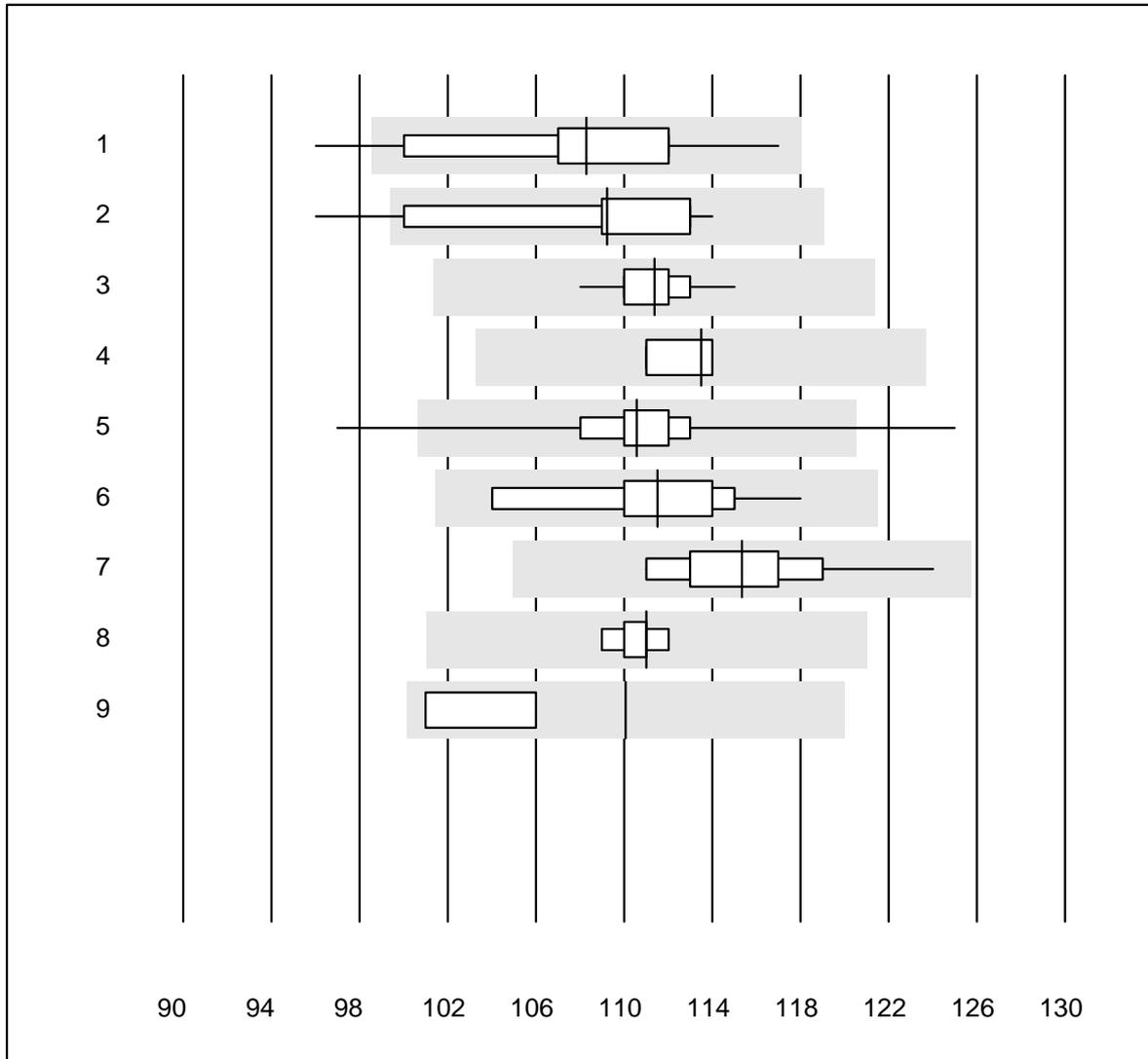
QUALAB tolerance : 9 %

Hemoglobin (g/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Automat	14	92.9	7.1	0.0	108.3	4.8	e*
2	Cyanmethemoglobin	17	94.1	5.9	0.0	109.2	4.6	e*
3	Sysmex X	48	97.9	0.0	2.1	111.4	1.4	e
4	Advia 120	4	100.0	0.0	0.0	113.5	1.3	e
5	Hemocue	418	94.9	1.0	4.1	110.6	2.4	e
6	Hemocontrol	10	100.0	0.0	0.0	111.5	3.4	e
7	DiaSpect	13	92.3	0.0	7.7	115.4	3.2	e
8	Sysmex	9	100.0	0.0	0.0	111.0	0.8	e
9	Other methods	4	50.0	0.0	50.0	110.1	3.4	a

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)
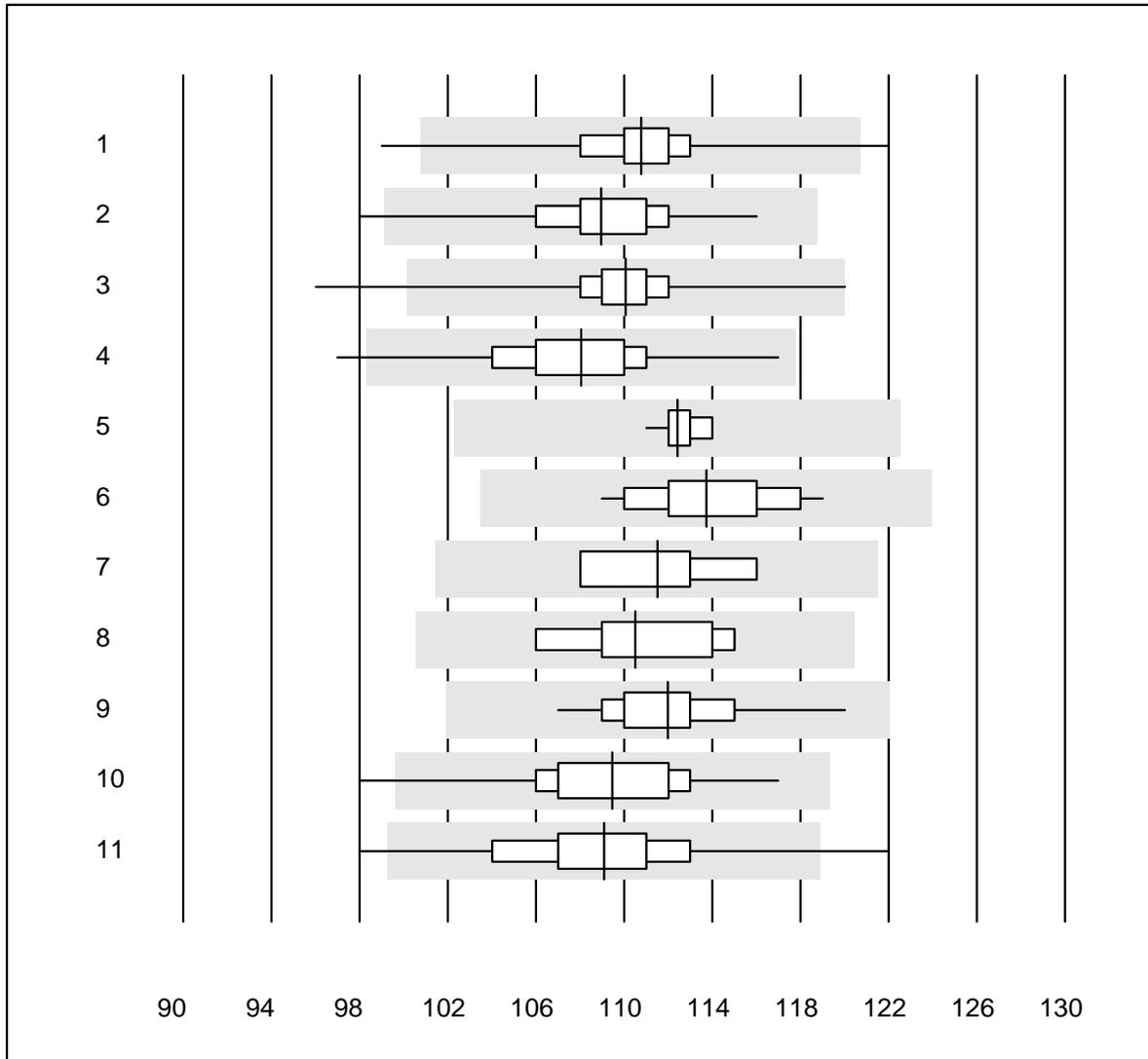
Hemoglobin

QUALAB tolerance : 9 %

Hemoglobin (g/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex KX21	166	95.8	1.8	2.4	110.8	2.1	e
2	Sysmex PocH - 100i	199	94.5	1.5	4.0	109.0	2.5	e
3	Sysmex XP 300	628	97.0	0.8	2.2	110.1	1.8	e
4	Mythic	251	96.4	0.4	3.2	108.0	2.8	e
5	Sysmex QX-320	12	100.0	0.0	0.0	112.4	0.8	e
6	Swelab	29	100.0	0.0	0.0	113.7	2.6	e
7	Abacus Junior	4	100.0	0.0	0.0	111.5	3.1	e*
8	Medonic	6	100.0	0.0	0.0	110.5	3.0	e*
9	Celltac Alpha (Nihon	86	95.3	0.0	4.7	112.0	2.0	e
10	Samsung HC10	20	90.0	5.0	5.0	109.5	3.5	e
11	Micros 60	89	93.3	5.6	1.1	109.1	3.7	e

Hematocrit
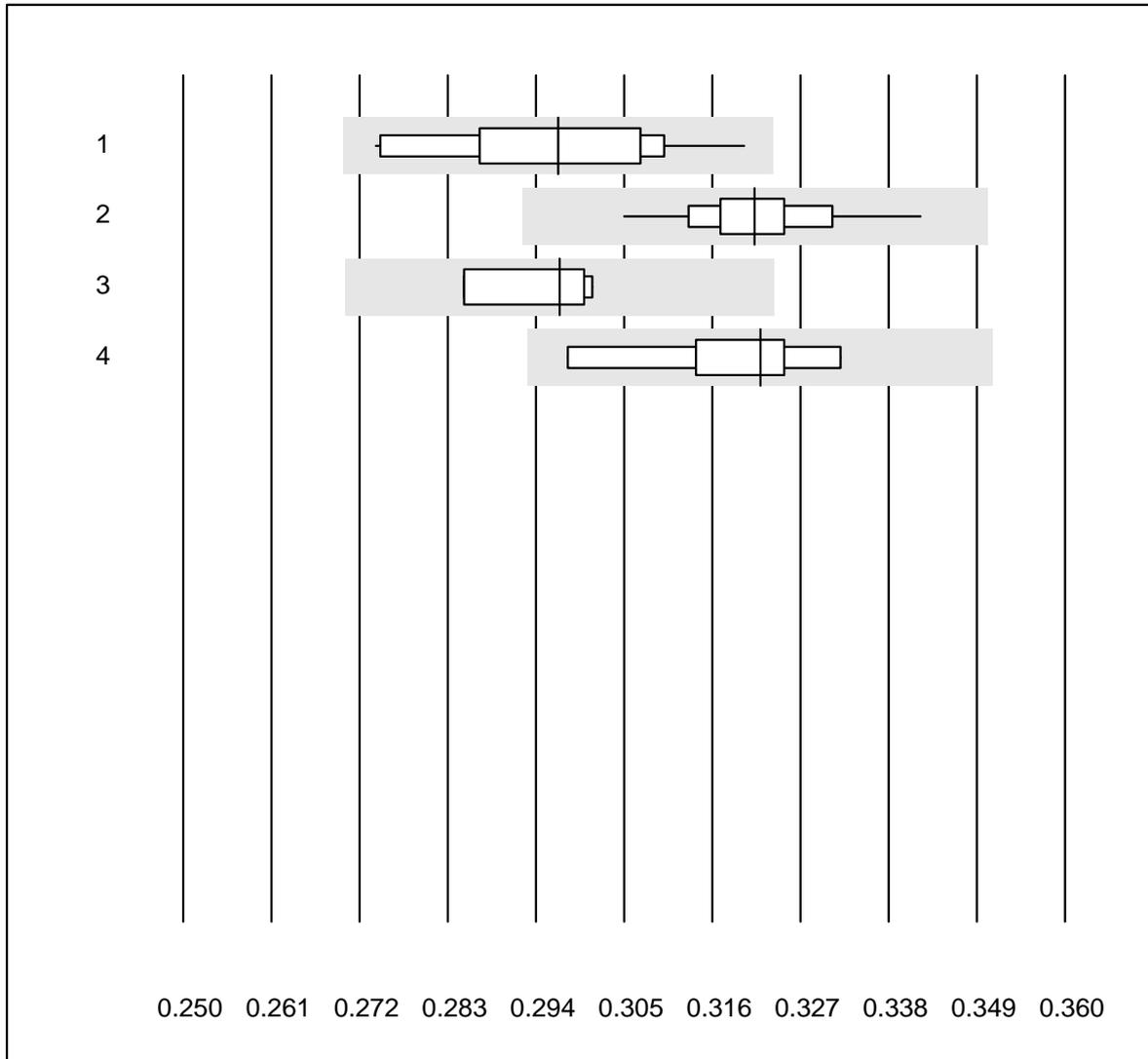
QUALAB tolerance : 9 %   Hematocrit (l/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Automat	15	93.3	0.0	6.7	0.30	4.8	e*
2	Sysmex X	48	97.9	0.0	2.1	0.32	2.3	e
3	Advia 120	4	100.0	0.0	0.0	0.30	2.5	e*
4	Sysmex	9	100.0	0.0	0.0	0.32	3.2	e

6 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Hematocrit



0.240 0.255 0.270 0.285 0.300 0.315 0.330 0.345 0.360 0.375 0.390
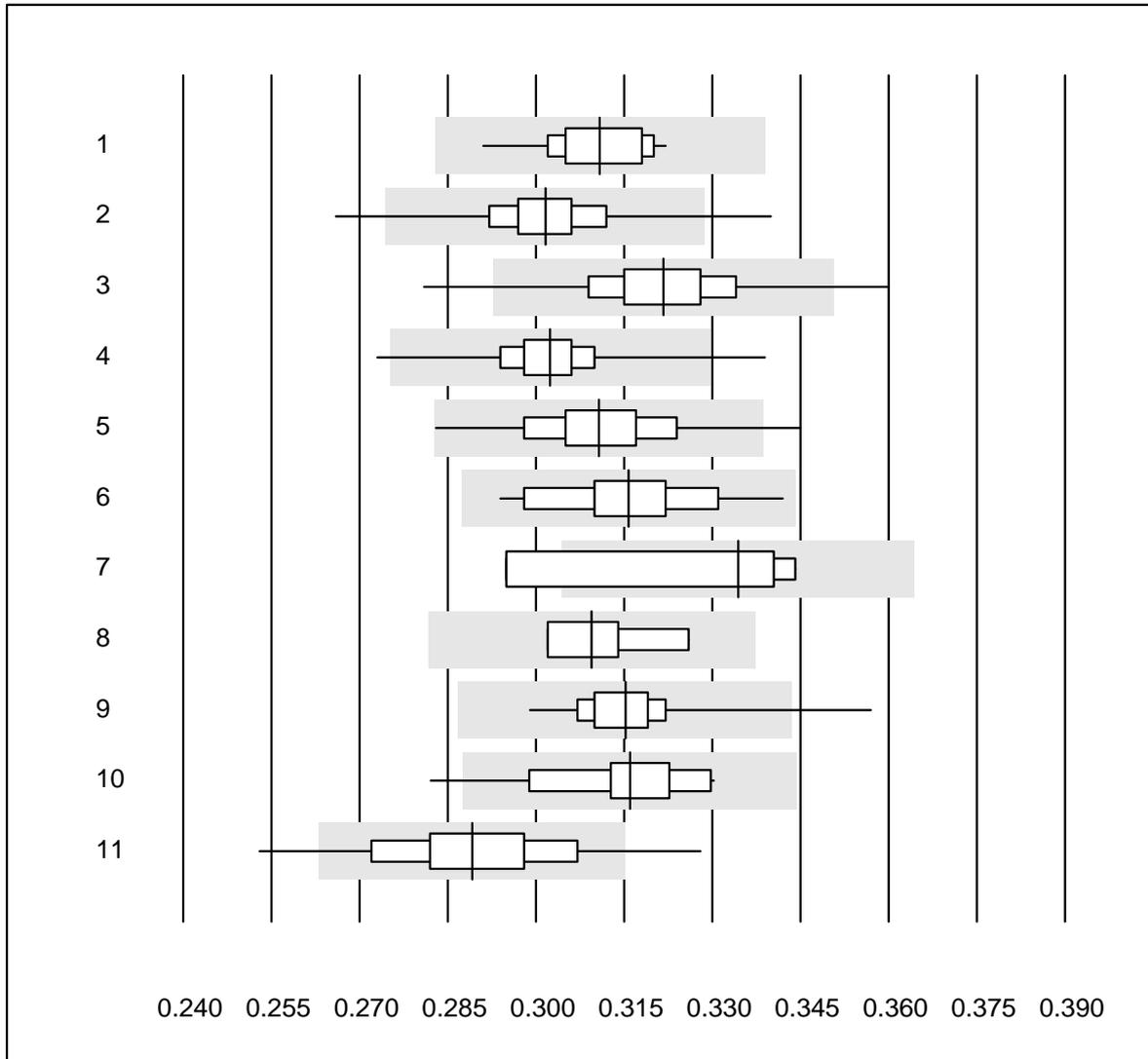
QUALAB tolerance : 9 %   Hematocrit (l/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex QX-320	12	100.0	0.0	0.0	0.31	2.9	e
2	Sysmex KX21	166	95.8	2.4	1.8	0.30	2.9	e
3	Sysmex PocH - 100i	199	95.0	2.0	3.0	0.32	3.4	e
4	Sysmex XP 300	628	97.6	0.3	2.1	0.30	2.2	e
5	Mythic	252	96.0	0.4	3.6	0.31	3.3	e
6	Swelab	29	100.0	0.0	0.0	0.32	3.8	e
7	Abacus Junior	4	75.0	25.0	0.0	0.33	6.9	e*
8	Medonic	6	100.0	0.0	0.0	0.31	2.9	e*
9	Celltac Alpha (Nihon	86	93.0	1.2	5.8	0.32	2.6	e
10	Samsung HC10	20	90.0	5.0	5.0	0.32	3.7	e
11	Micros 60	89	89.9	7.9	2.2	0.29	4.6	e

Erythrocytes
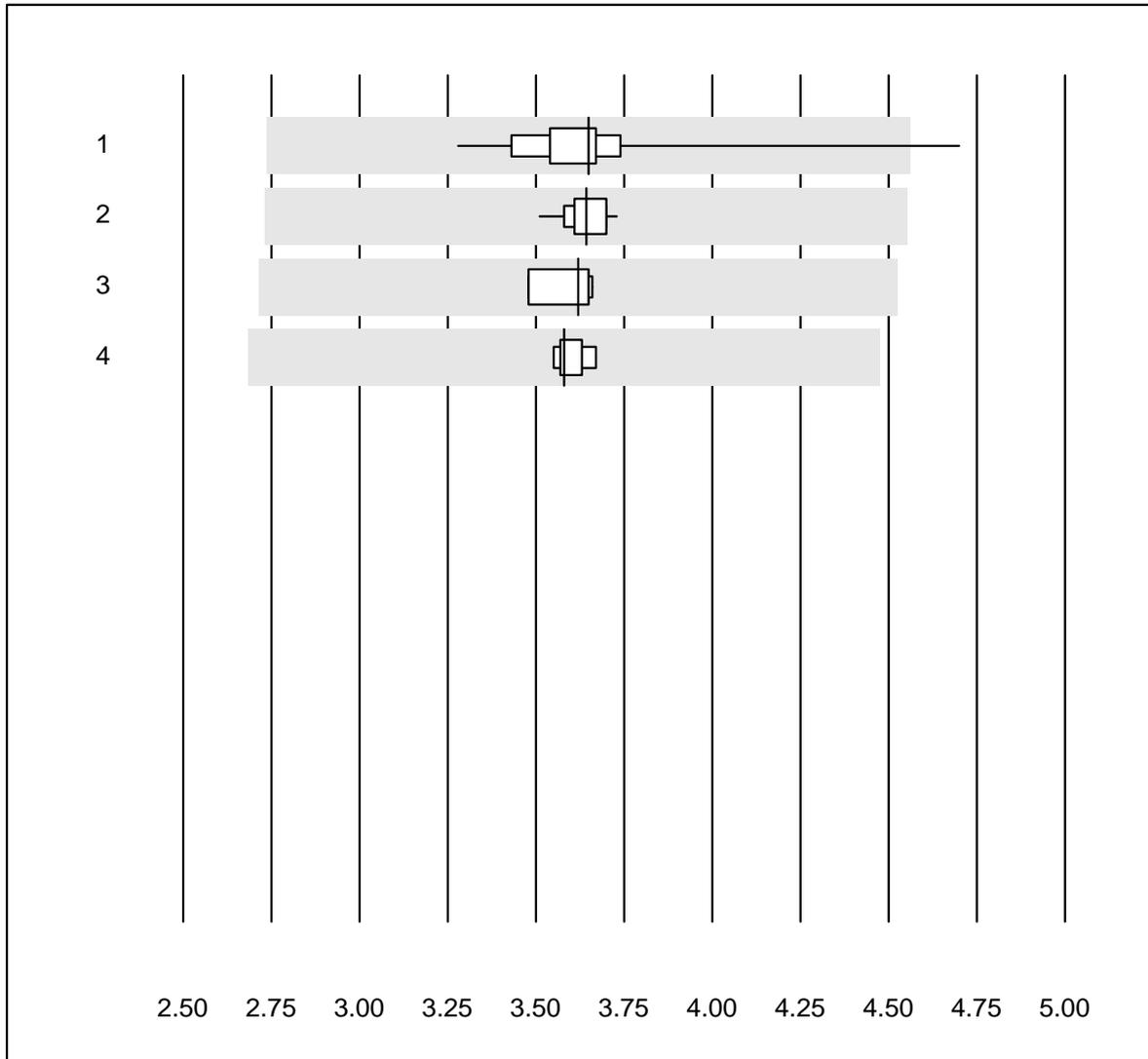
QUALAB tolerance : 25 %   Erythrocytes (T/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Automat	13	92.3	7.7	0.0	3.65	9.3	e
2	Sysmex X	48	97.9	0.0	2.1	3.64	1.5	e
3	Advia 120	4	100.0	0.0	0.0	3.62	2.3	e
4	Sysmex	9	100.0	0.0	0.0	3.58	1.1	e

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)
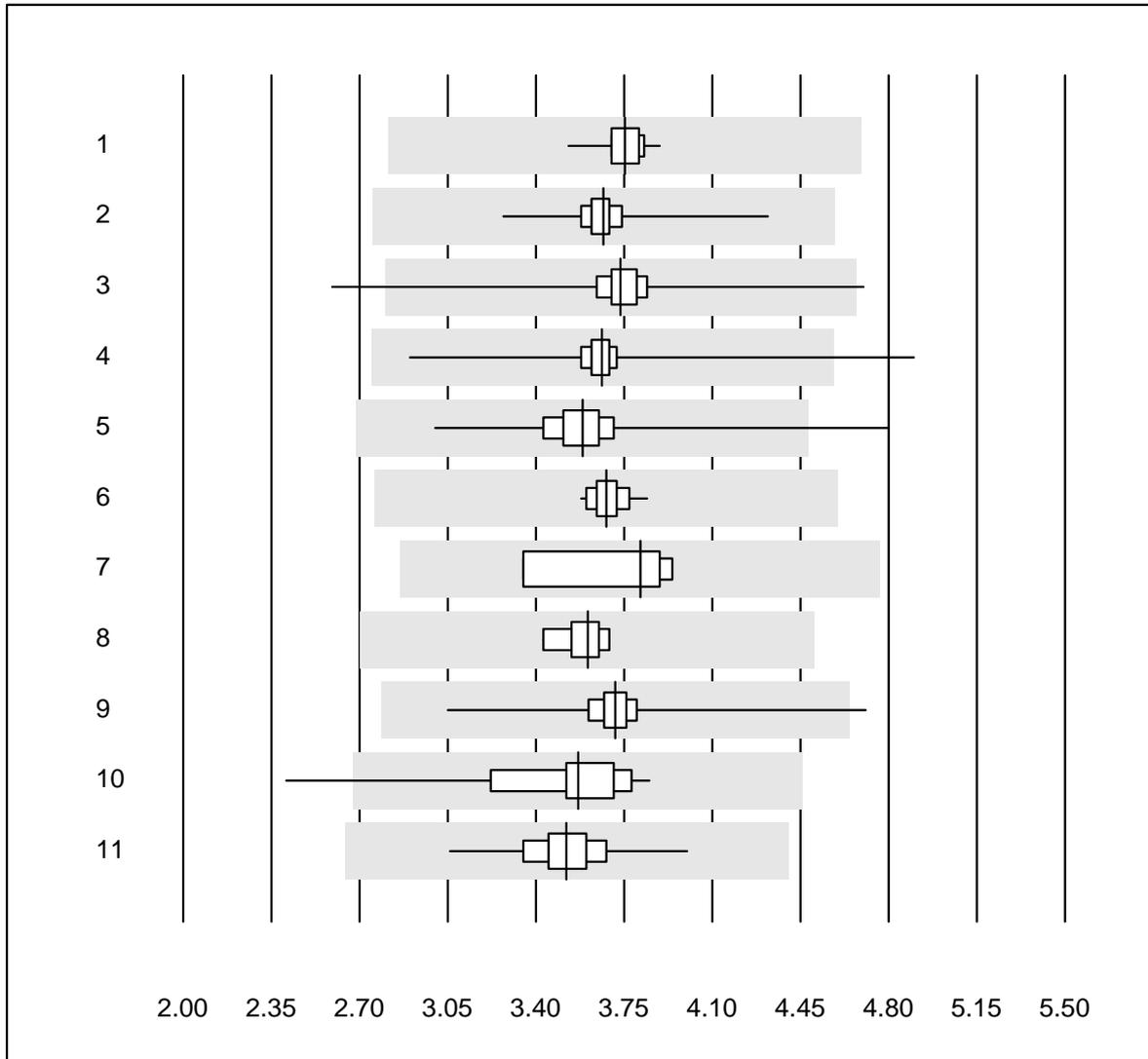
Erythrocytes


QUALAB tolerance : 25 %   Erythrocytes (T/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex QX-320	12	100.0	0.0	0.0	3.75	2.4	e
2	Sysmex KX21	166	98.8	0.0	1.2	3.67	3.1	e
3	Sysmex PocH - 100i	199	97.5	1.5	1.0	3.74	4.9	e
4	Sysmex XP 300	628	98.1	0.6	1.3	3.66	3.5	e
5	Mythic	251	98.4	0.4	1.2	3.59	4.7	e
6	Swelab	29	100.0	0.0	0.0	3.68	1.8	e
7	Abacus Junior	4	100.0	0.0	0.0	3.82	7.2	e*
8	Medonic	6	100.0	0.0	0.0	3.61	2.6	e
9	Celltac Alpha (Nihon	86	95.3	1.2	3.5	3.71	4.1	e
10	Samsung HC10	20	95.0	5.0	0.0	3.57	8.5	e
11	Micros 60	89	100.0	0.0	0.0	3.52	4.7	e

Leucocytes
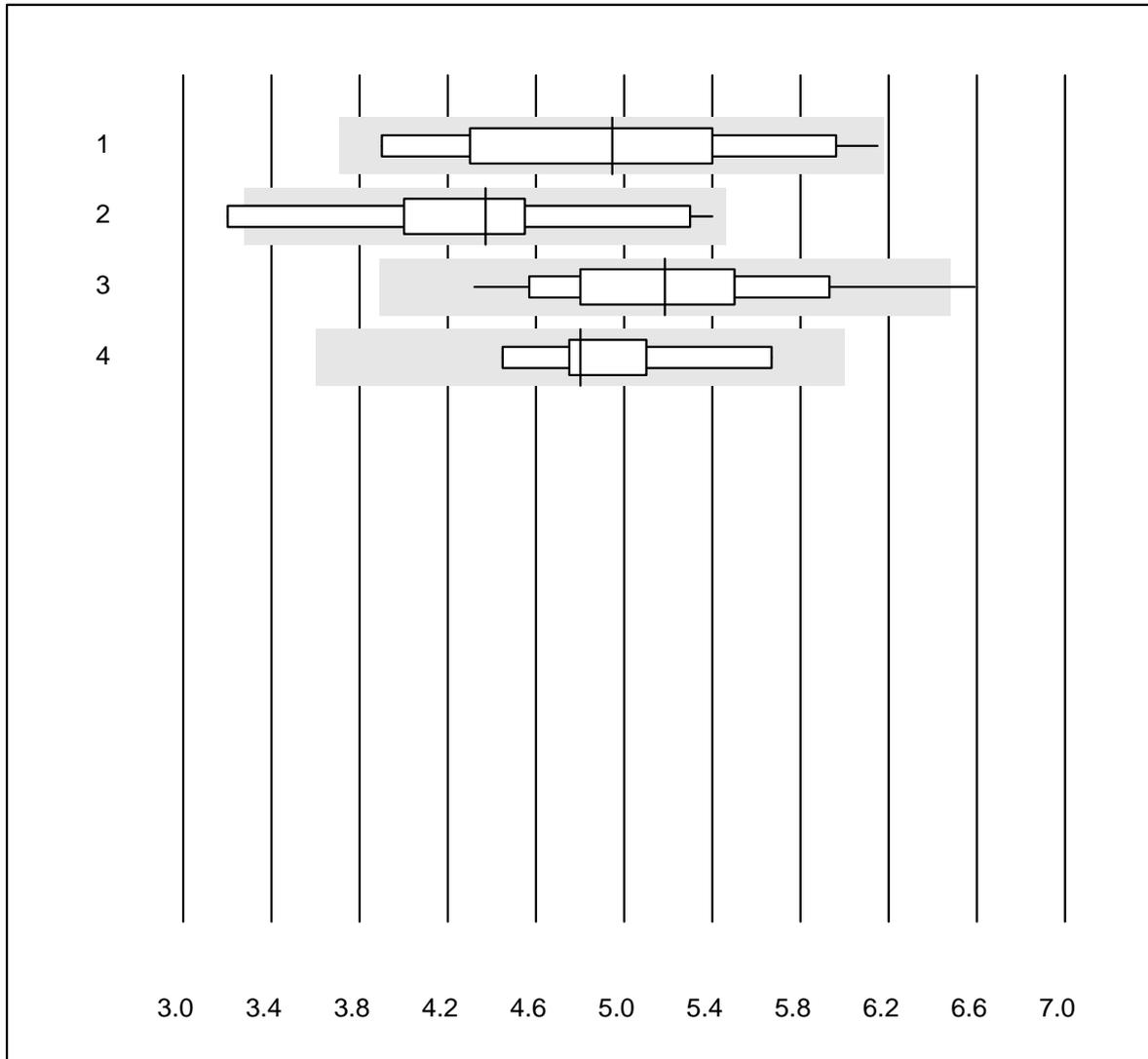
QUALAB tolerance : 25 %

Leucocytes (G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Automat	14	100.0	0.0	0.0	4.95	14.7	e*
2	Microscopic	10	90.0	10.0	0.0	4.37	14.8	e*
3	Sysmex X	48	97.9	2.1	0.0	5.19	9.2	e
4	Sysmex	9	100.0	0.0	0.0	4.80	7.4	e

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)
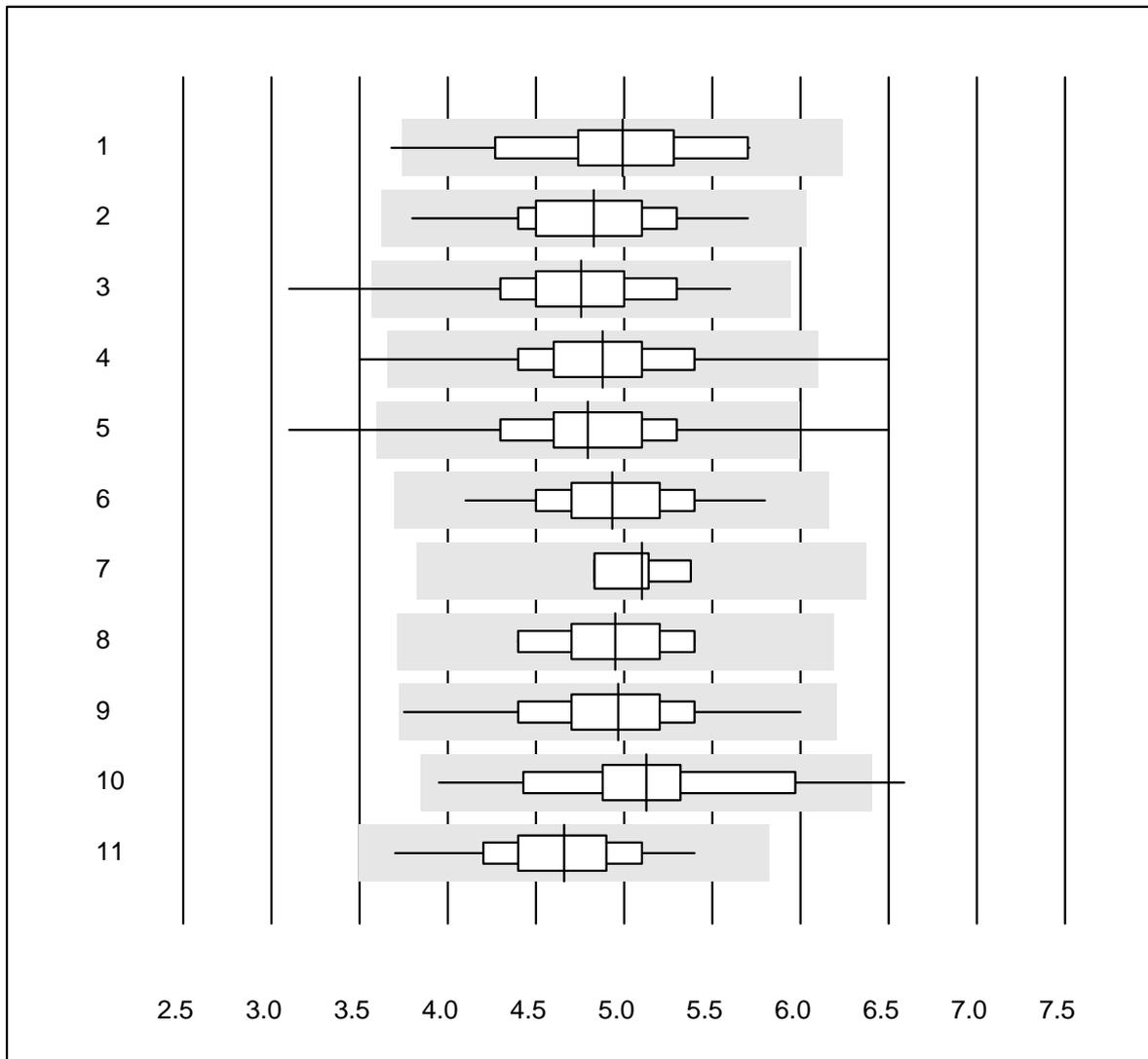
Leucocytes

QUALAB tolerance : 25 %

Leucocytes (G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex QX-320	12	91.7	8.3	0.0	4.99	11.5	e*
2	Sysmex KX21	166	99.4	0.0	0.6	4.83	7.5	e
3	Sysmex PocH - 100i	199	97.0	1.5	1.5	4.76	8.5	e
4	Sysmex XP 300	628	99.1	0.6	0.3	4.88	8.0	e
5	Mythic	249	97.2	2.0	0.8	4.80	8.8	e
6	Swelab	29	100.0	0.0	0.0	4.93	7.3	e
7	Abacus Junior	4	100.0	0.0	0.0	5.10	4.4	e
8	Medonic	6	100.0	0.0	0.0	4.95	7.4	e*
9	Celltac Alpha (Nihon	86	100.0	0.0	0.0	4.97	8.6	e
10	Samsung HC10	20	90.0	5.0	5.0	5.12	11.2	e
11	Micros 60	89	97.8	0.0	2.2	4.66	7.8	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)
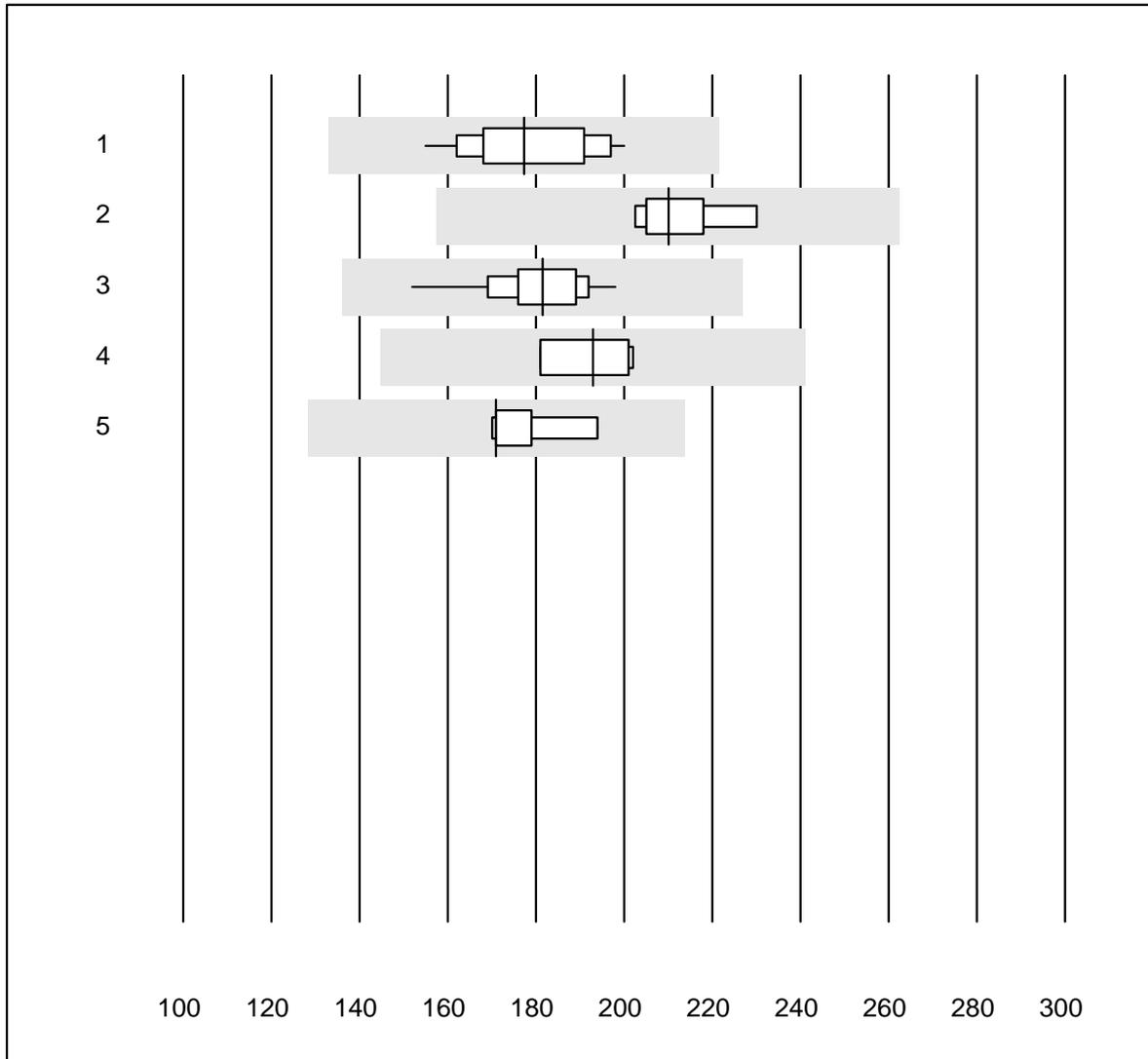
Thrombocytes

QUALAB tolerance : 25 %

Thrombocytes (G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Automat	12	91.7	0.0	8.3	177.3	7.9	e
2	Microscopic	6	83.3	0.0	16.7	210.0	5.1	e
3	Sysmex X	48	100.0	0.0	0.0	181.5	5.1	e
4	Advia 120	4	100.0	0.0	0.0	193.0	5.6	e
5	Sysmex	9	100.0	0.0	0.0	171.0	4.9	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)
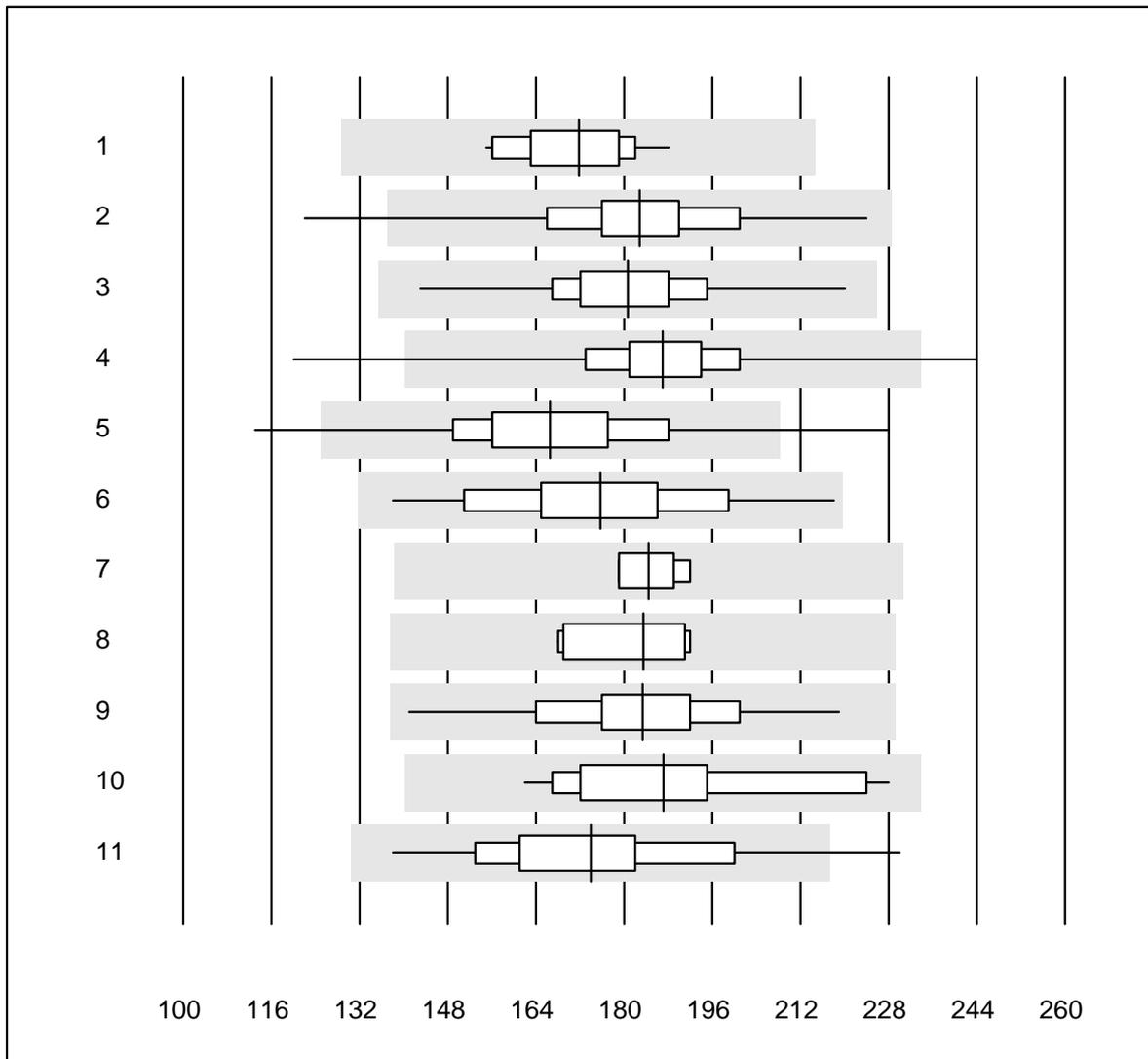
Thrombocytes

QUALAB tolerance : 25 %

Thrombocytes (G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex QX-320	12	100.0	0.0	0.0	171.8	6.2	e
2	Sysmex KX21	166	98.2	0.6	1.2	182.8	7.6	e
3	Sysmex PocH - 100i	199	99.0	0.0	1.0	180.7	6.6	e
4	Sysmex XP 300	628	97.9	1.0	1.1	187.0	6.8	e
5	Mythic	251	95.2	2.8	2.0	166.6	10.0	e
6	Swelab	28	100.0	0.0	0.0	175.7	10.4	e
7	Abacus Junior	4	100.0	0.0	0.0	184.5	3.5	e
8	Medonic	6	100.0	0.0	0.0	183.5	5.8	e
9	Celltac Alpha (Nihon	86	98.8	0.0	1.2	183.3	8.3	e
10	Samsung HC10	20	95.0	0.0	5.0	187.2	10.1	e
11	Micros 60	89	96.7	1.1	2.2	173.9	10.5	e

Hemoglobin H2
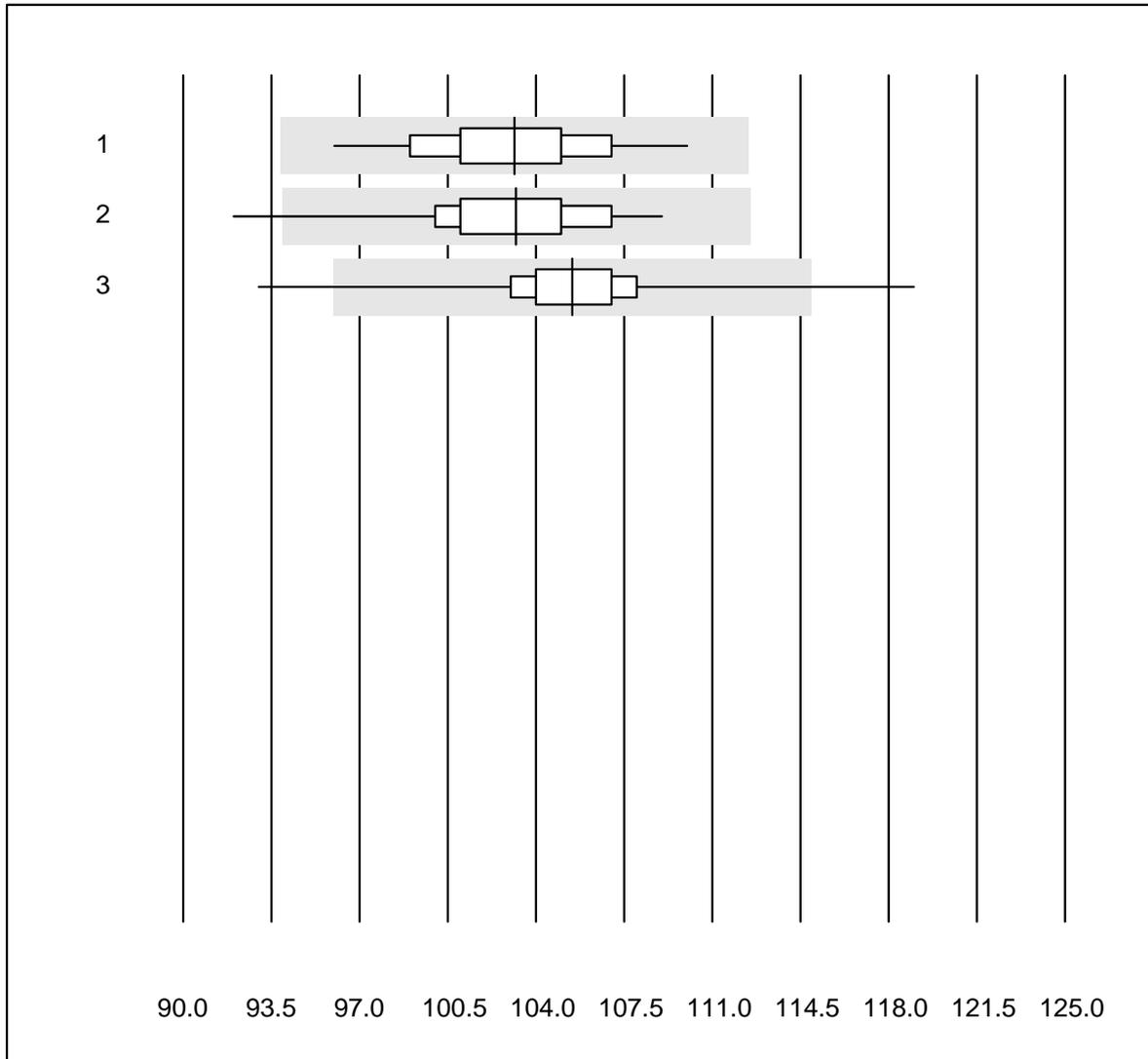
QUALAB tolerance : 9 %

Hemoglobin H2 (g/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Z3	153	93.5	0.0	6.5	103.1	2.7	e
2	Abx Micros	74	91.8	1.4	6.8	103.2	3.0	e
3	Microsemi	857	95.2	0.5	4.3	105.4	2.3	e

Hematocrit H2
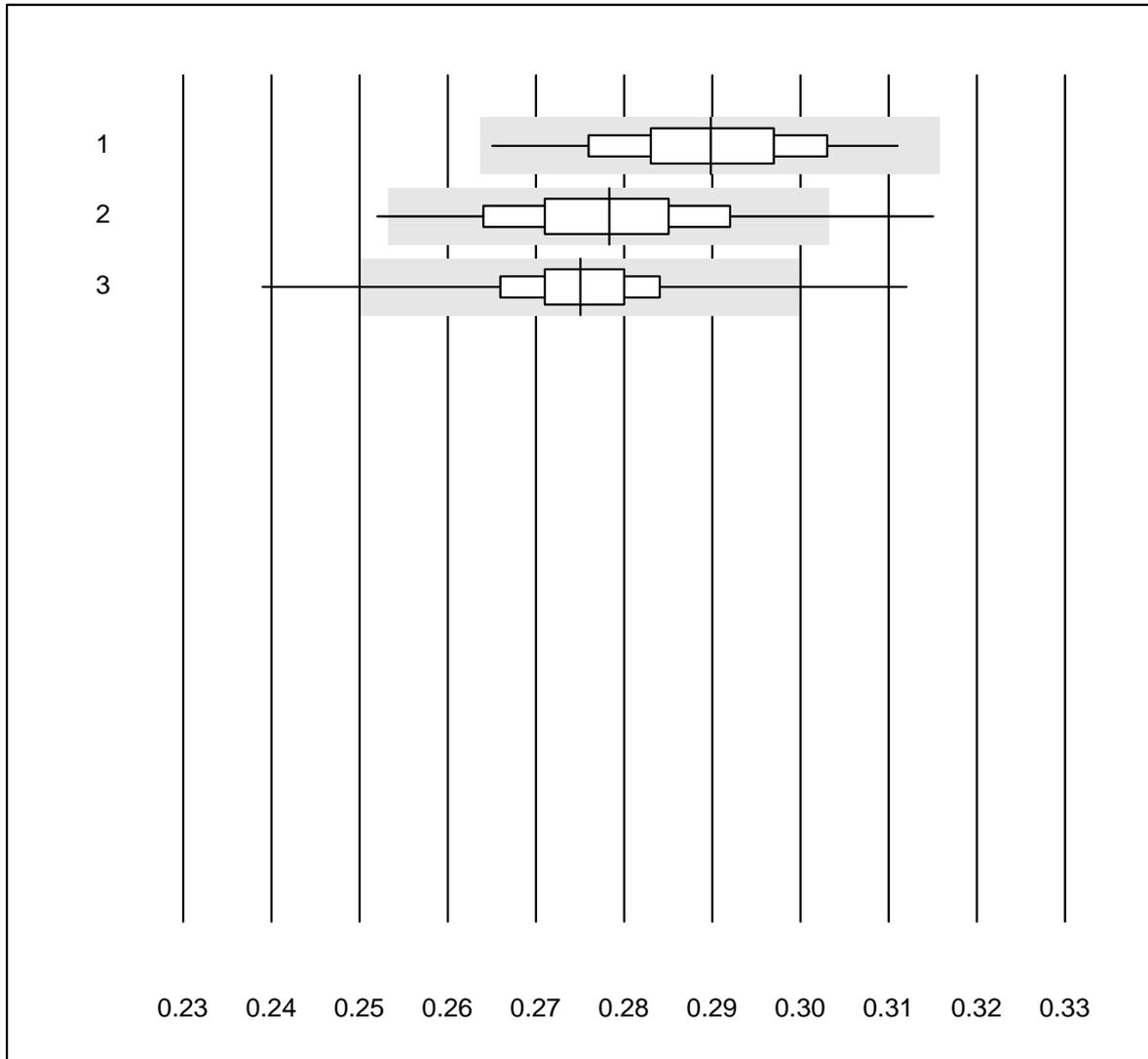
QUALAB tolerance : 9 %

Hematocrit H2 (l/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Z3	153	93.5	0.0	6.5	0.29	3.5	e
2	Abx Micros	74	86.4	6.8	6.8	0.28	4.5	e
3	Microsemi	857	93.1	1.5	5.4	0.28	3.1	e

Leucocytes H2
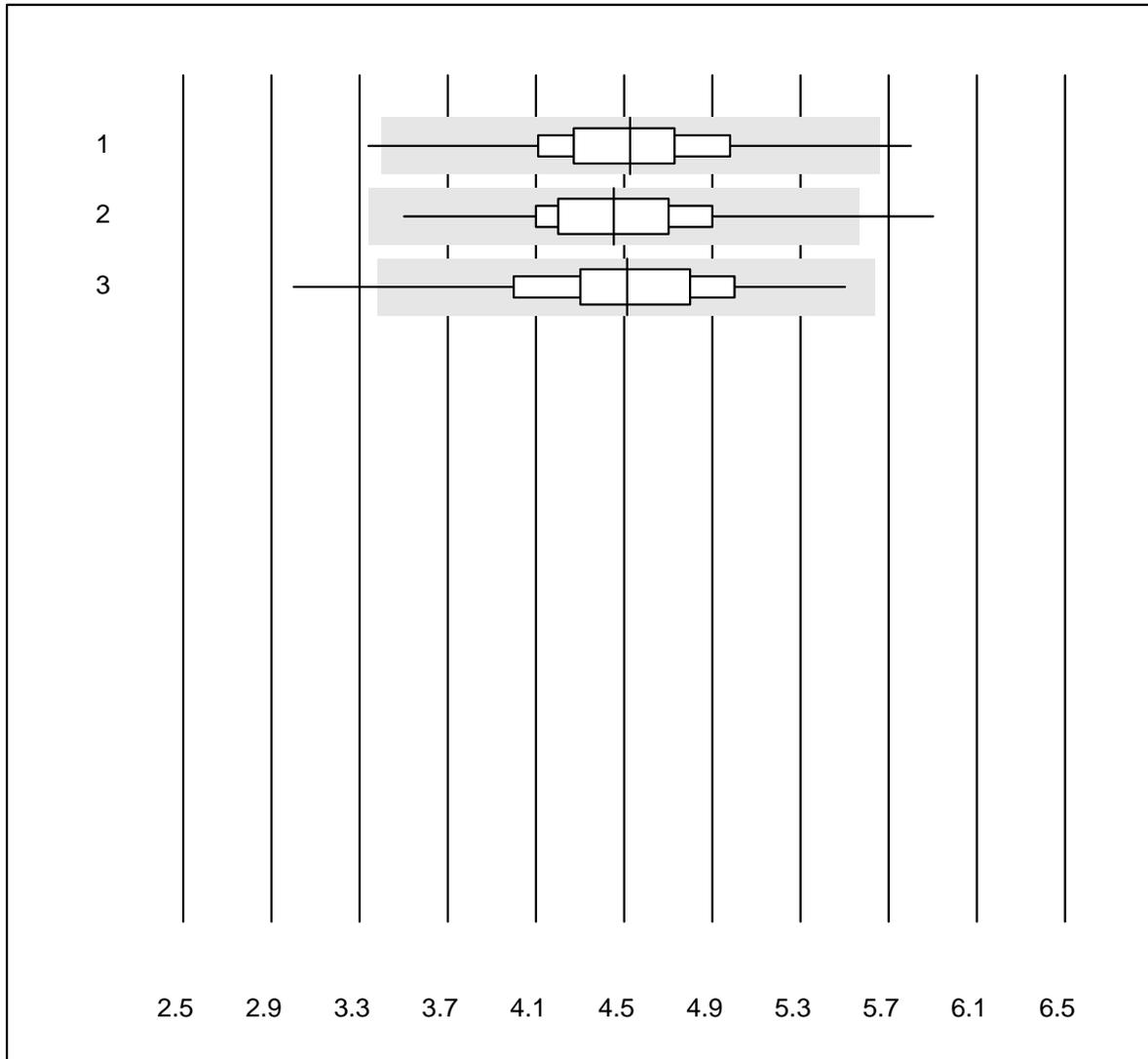
QUALAB tolerance : 25 %
Leucocytes H2 (G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Z3	153	98.0	1.3	0.7	4.53	8.1	e
2	Abx Micros	74	95.9	1.4	2.7	4.45	8.7	e
3	Microsemi	857	98.5	0.9	0.6	4.51	8.4	e

Thrombocytes H2
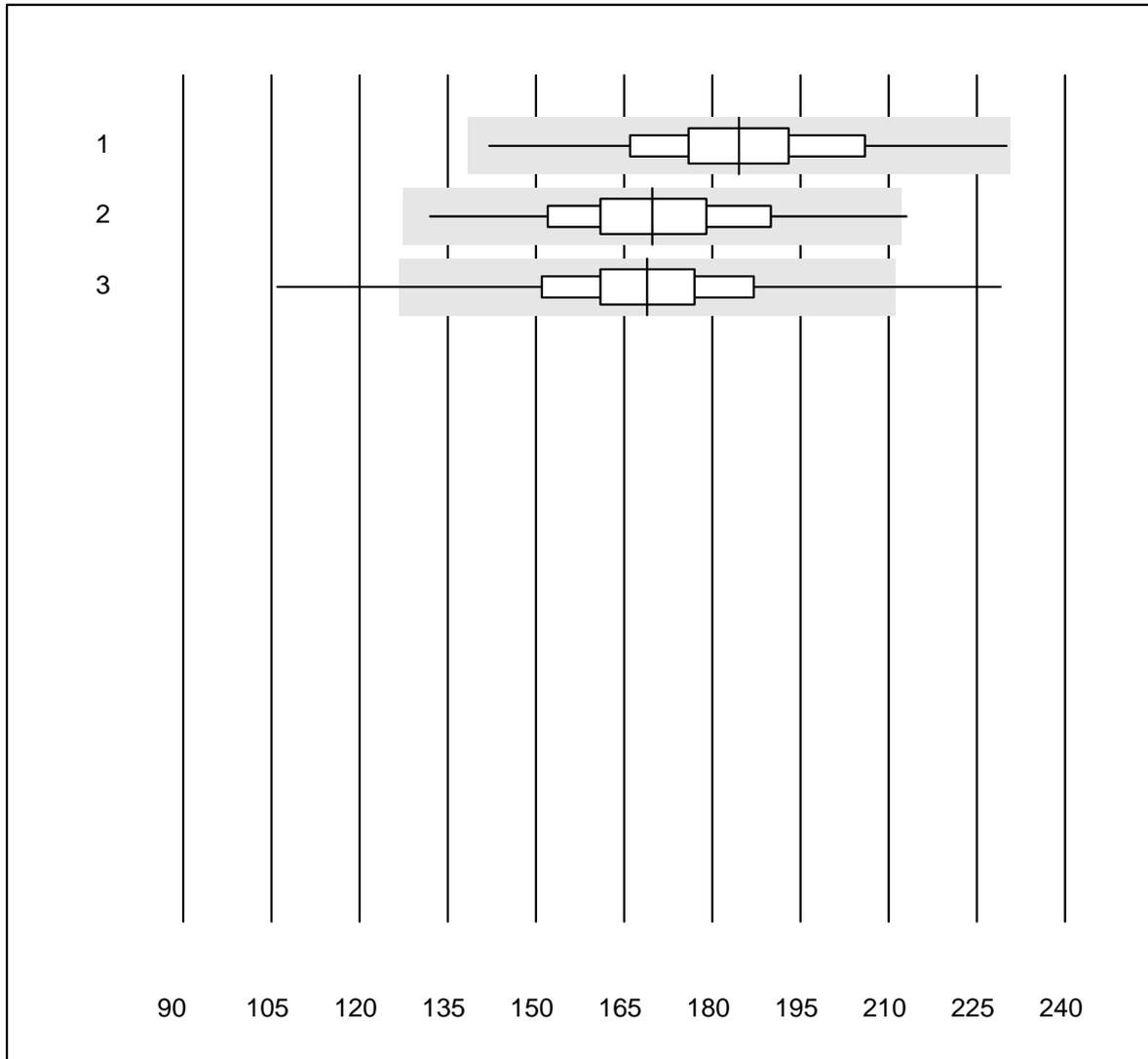
QUALAB tolerance : 25 %　　　　Thrombocytes H2 (G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Z3	153	97.4	0.0	2.6	184.5	8.5	e
2	Abx Micros	74	90.5	1.4	8.1	169.8	8.8	e
3	Microsemi	857	94.7	2.0	3.3	168.9	8.9	e

Erythrocytes H2
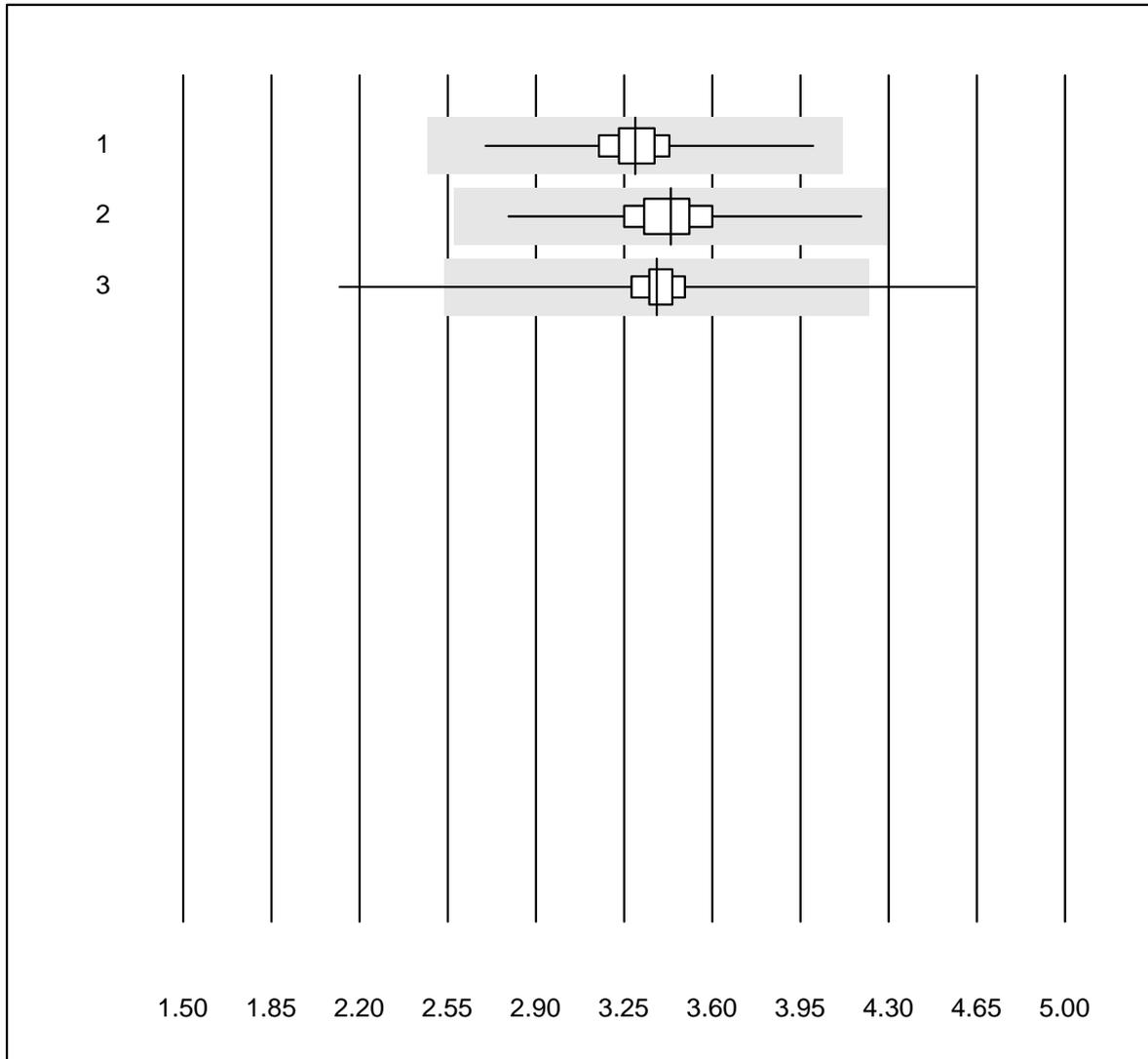
QUALAB tolerance : 25 %   Erythrocytes H2 (T/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Z3	153	95.4	0.0	4.6	3.30	4.1	e
2	Abx Micros	74	97.3	0.0	2.7	3.44	5.5	e
3	Microsemi	857	96.5	1.3	2.2	3.38	5.3	e

CRP H2
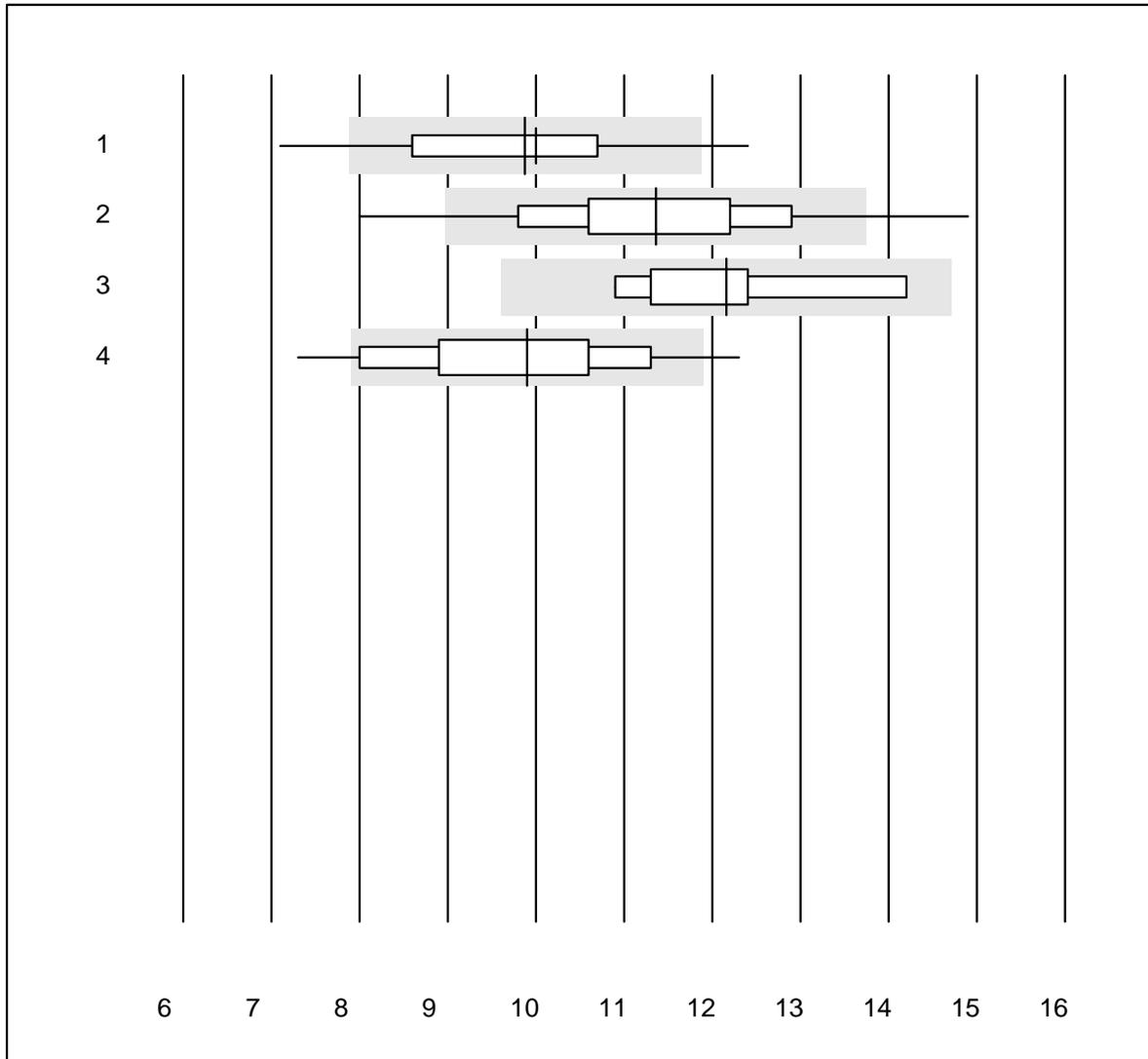
QUALAB tolerance : 21 %
(< 10.0: +/- 2.0 mg/l)

CRP H2 (mg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Z3	141	87.2	6.4	6.4	9.9	9.0	e
2	Microsemi	841	89.4	5.8	4.8	11.4	10.6	e
3	Abx Micros	10	80.0	0.0	20.0	12.2	8.7	e*
4	ABX Micros CRP200	64	82.8	12.5	4.7	9.9	12.2	e

Hemoglobin BG

1

105   108   111   114   117   120   123   126   129   132   135

QUALAB tolerance : 9 %   Hemoglobin BG (g/l)
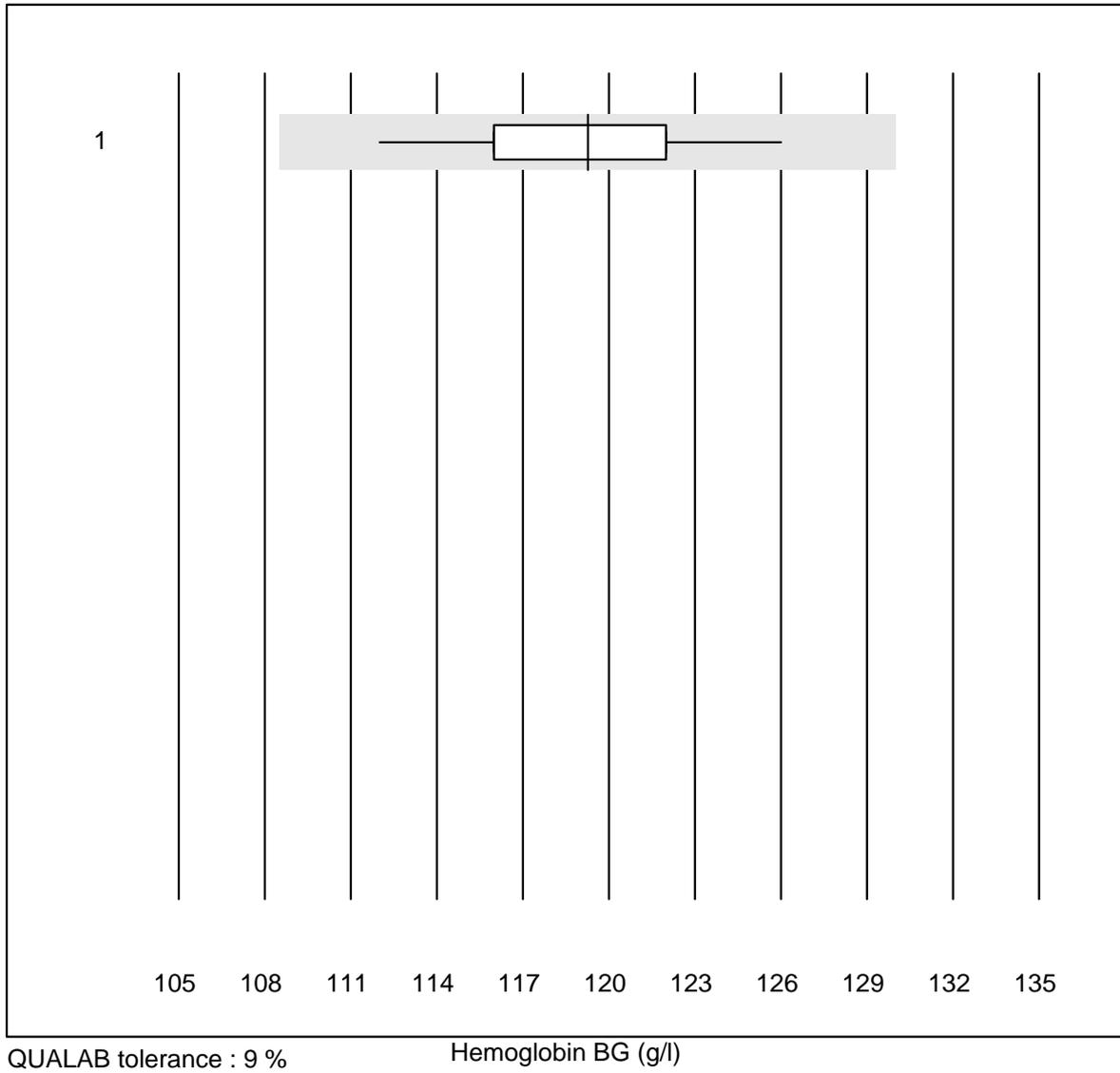
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	iStat	11	100.0	0.0	0.0	119.3	3.2	e

Hematocrit
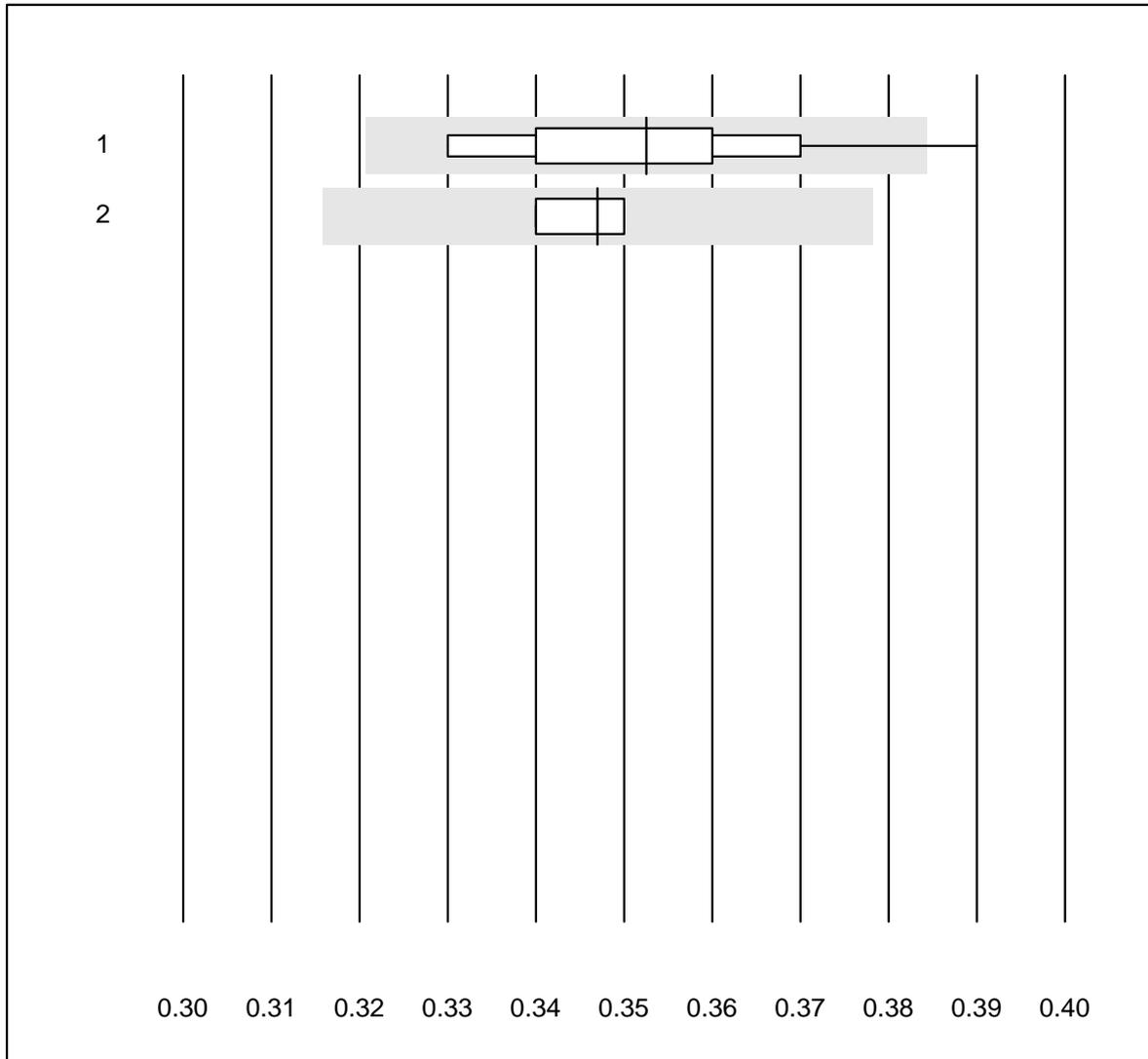
QUALAB tolerance : 9 %

Hematocrit (l/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	iStat	16	93.7	6.3	0.0	0.35	4.2	e
2	EPOC	11	90.9	0.0	9.1	0.35	1.4	e

Hemoglobin
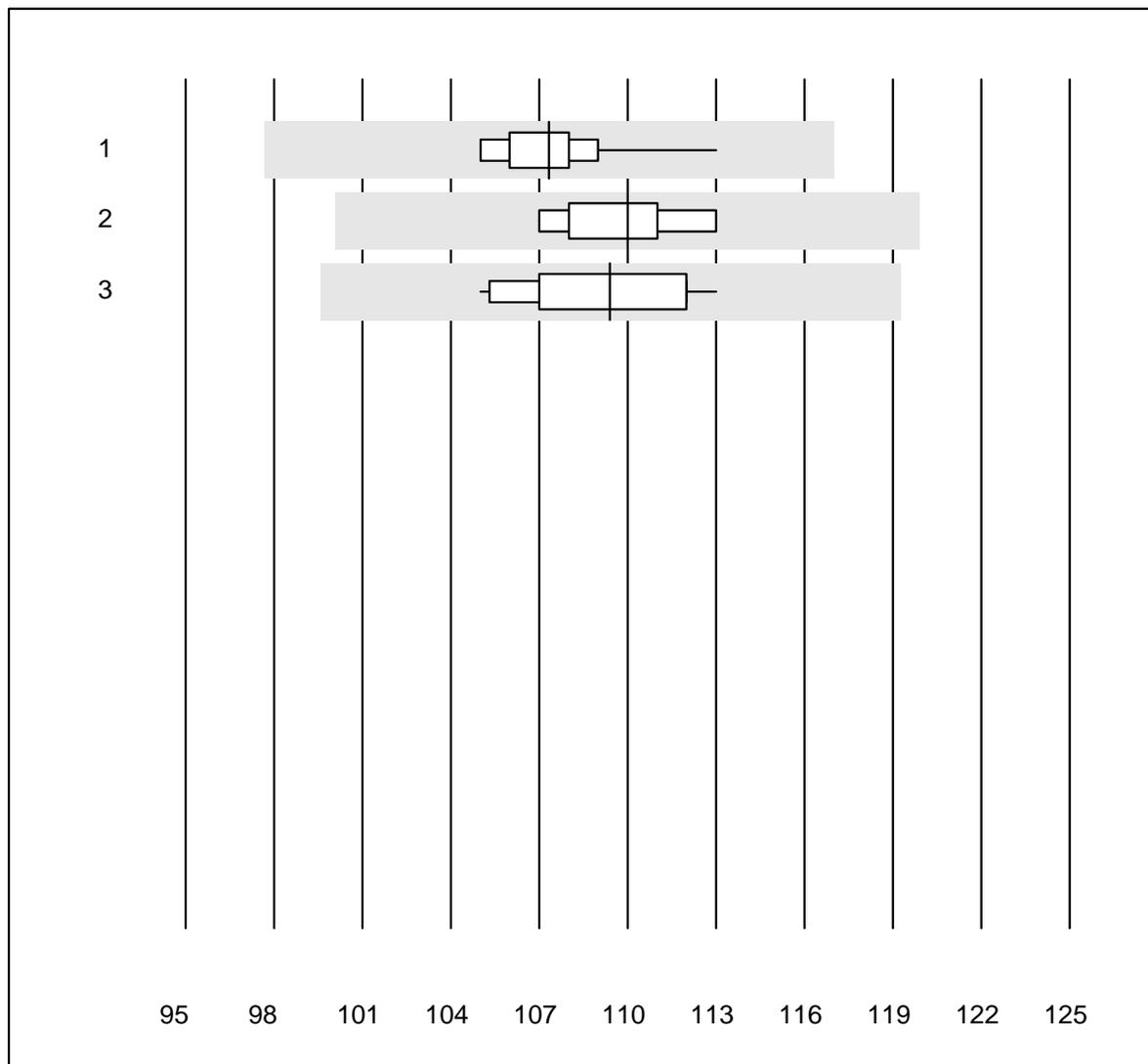
95 98 101 104 107 110 113 116 119 122 125

QUALAB tolerance : 9 %

Hemoglobin (g/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex	91	98.9	0.0	1.1	107.3	1.5	e
2	Advia	6	100.0	0.0	0.0	110.0	2.0	e
3	Yumizen/Pentra	15	100.0	0.0	0.0	109.4	2.4	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)
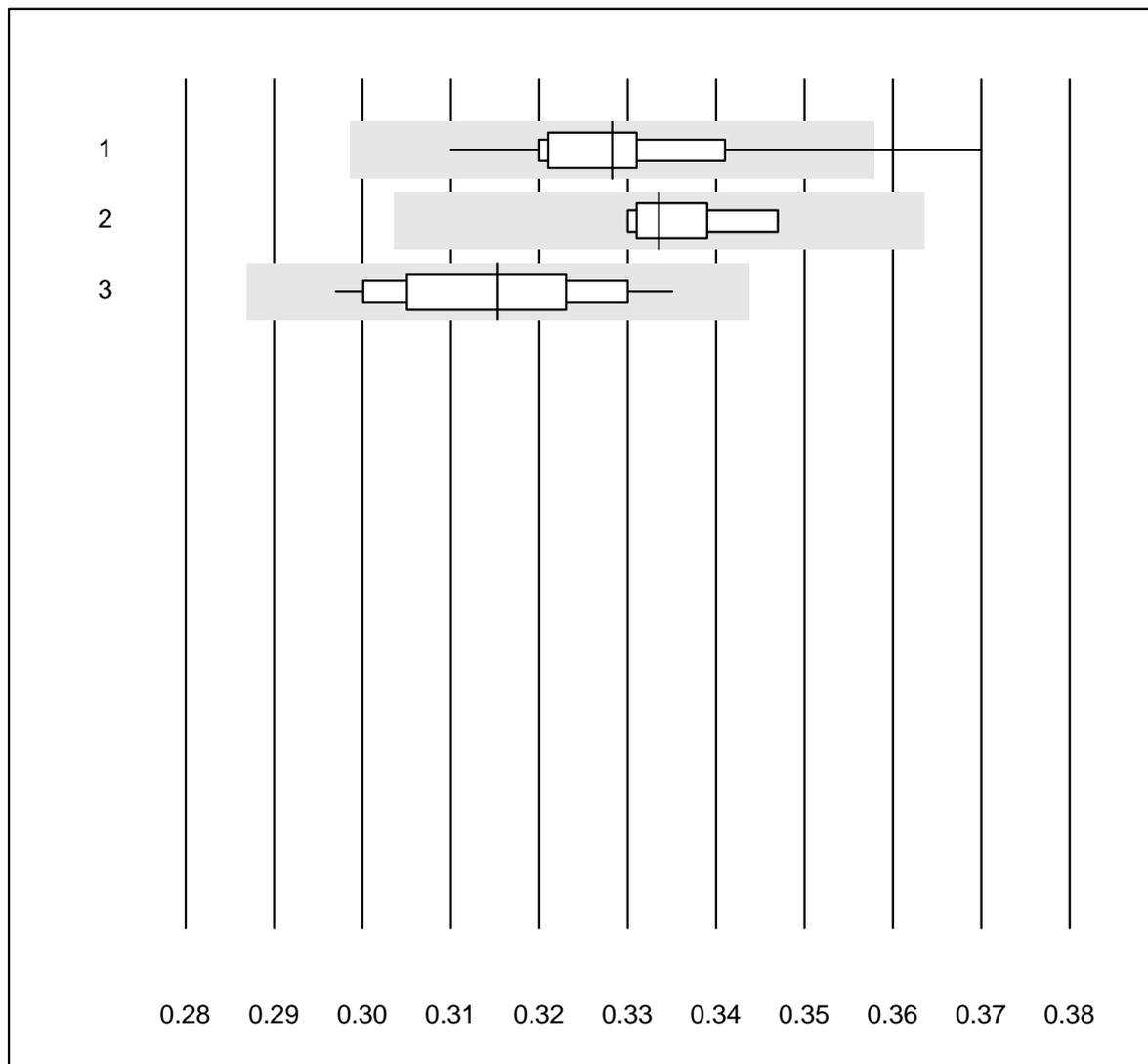
Hematocrit

QUALAB tolerance : 9 %   Hematocrit (l/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex	93	97.8	1.1	1.1	0.33	2.9	e
2	Advia	6	100.0	0.0	0.0	0.33	1.9	e
3	Yumizen/Pentra	15	100.0	0.0	0.0	0.32	3.6	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)
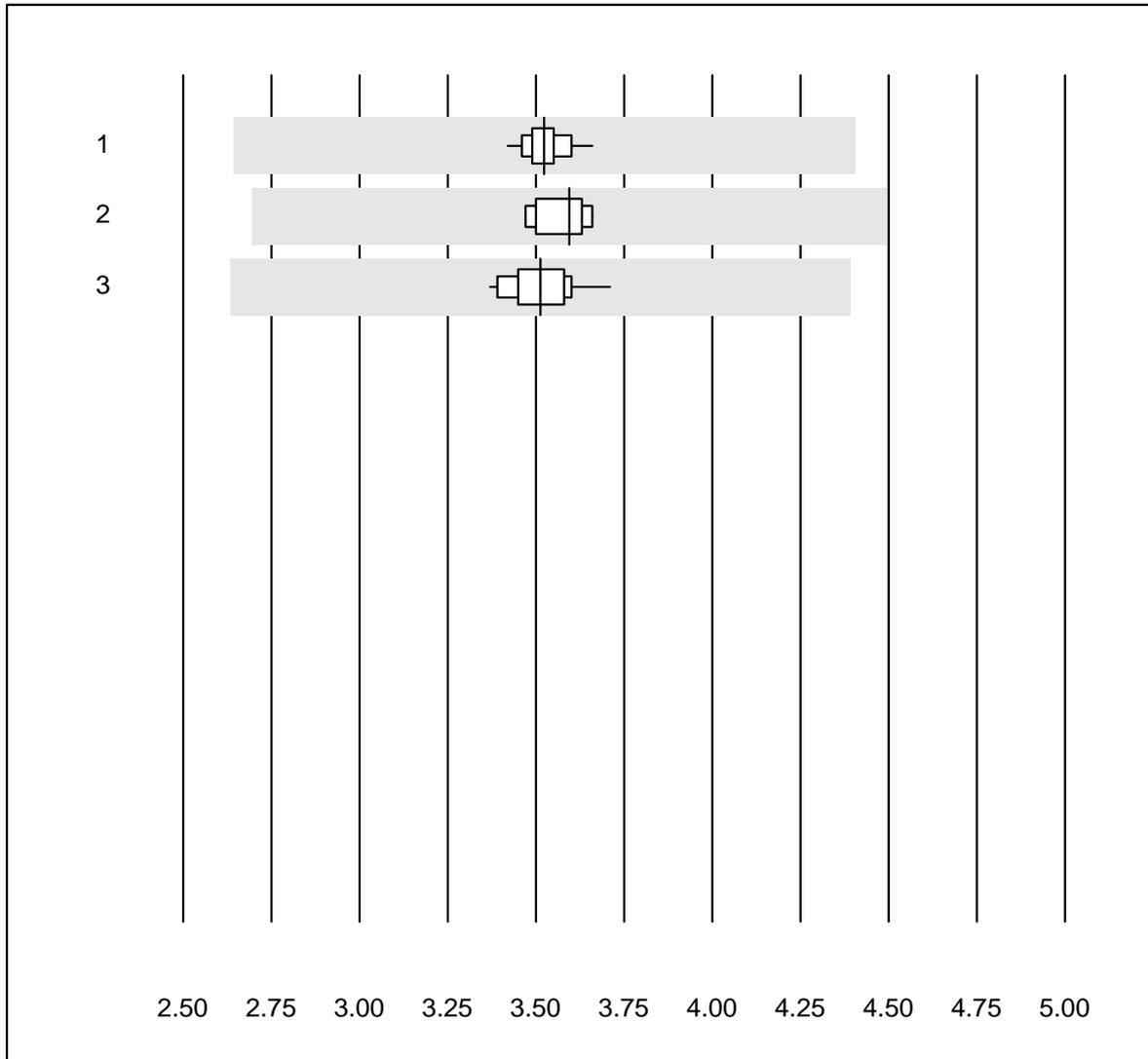
Erythrocytes

QUALAB tolerance : 25 %   Erythrocytes (T/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex	93	98.9	0.0	1.1	3.52	1.5	e
2	Advia	6	100.0	0.0	0.0	3.60	2.1	e
3	Yumizen/Pentra	15	100.0	0.0	0.0	3.51	2.6	e

One result was submitted but not published because the method group was too small. (<4 results per group)
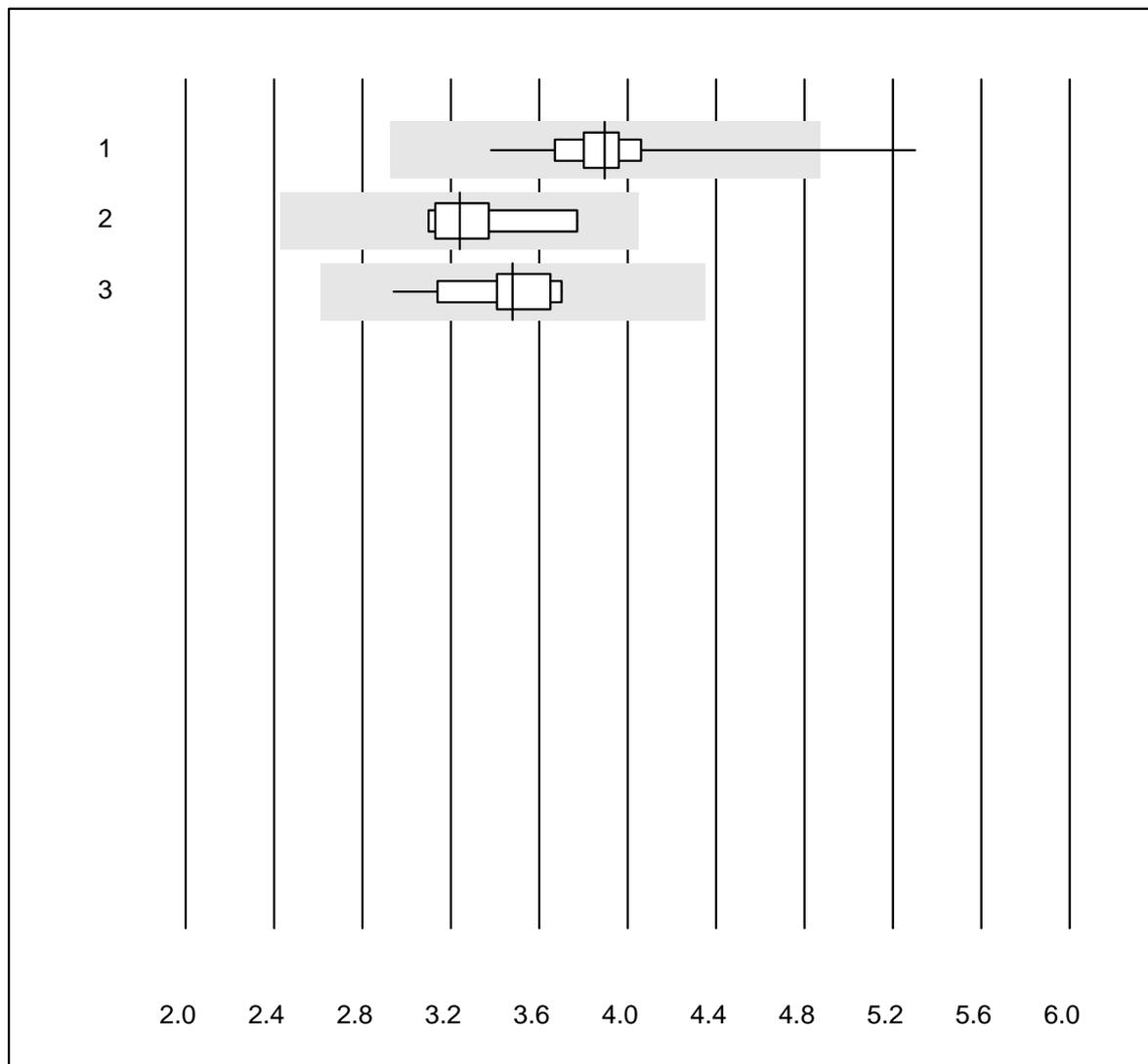
Leucocytes

QUALAB tolerance : 25 %

Leucocytes (G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex	92	98.9	1.1	0.0	3.90	6.1	e
2	Advia	6	100.0	0.0	0.0	3.24	7.5	e*
3	Yumizen/Pentra	15	93.3	0.0	6.7	3.48	6.6	e

One result was submitted but not published because the method group was too small. (<4 results per group)
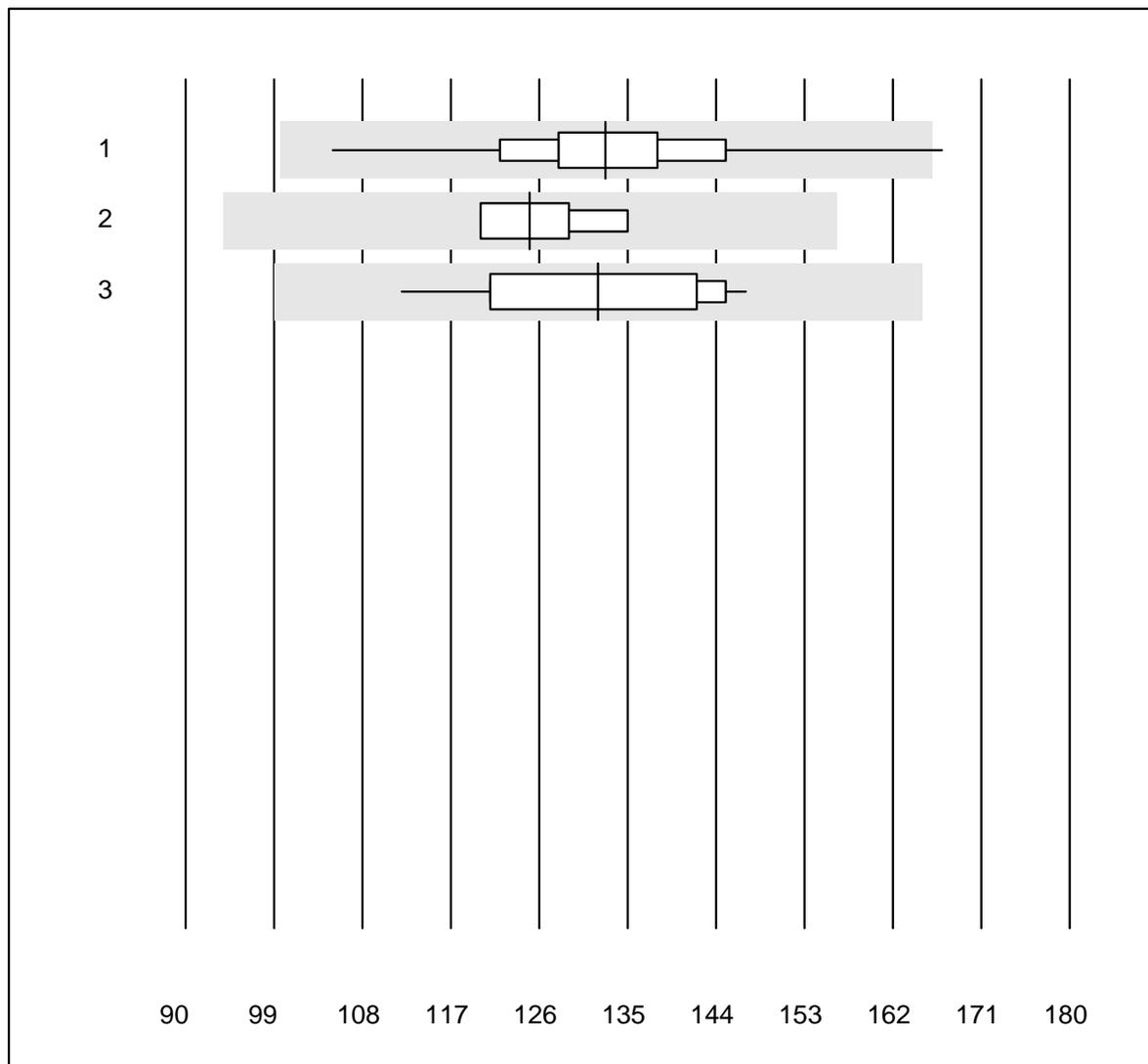
Thrombocytes

QUALAB tolerance : 25 %

Thrombocytes (G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex	91	96.7	1.1	2.2	132.8	7.4	e
2	Advia	6	100.0	0.0	0.0	125.0	4.7	e
3	Yumizen/Pentra	15	100.0	0.0	0.0	132.0	8.2	e

One result was submitted but not published because the method group was too small. (<4 results per group)

Neutrophils
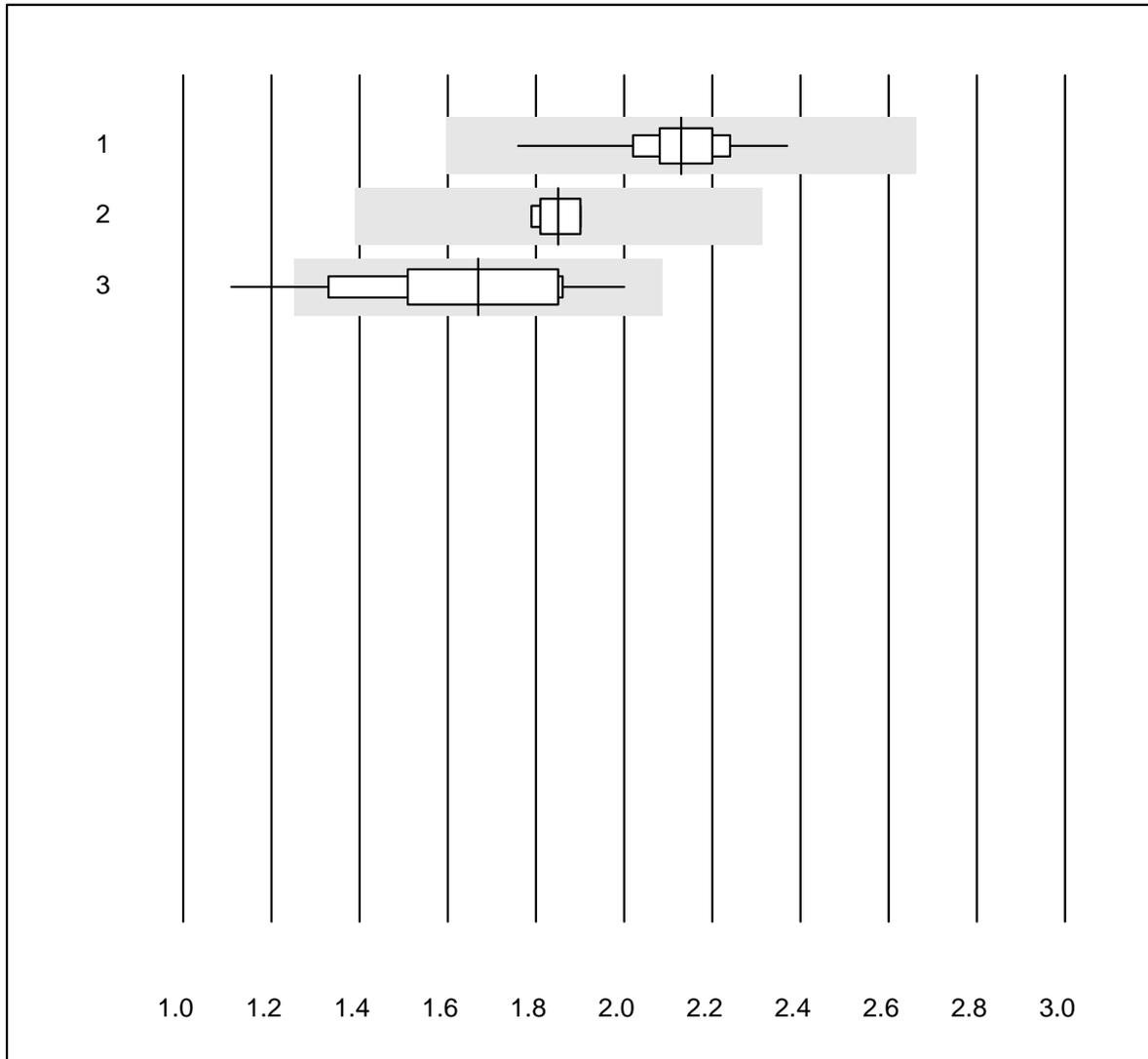
MQ tolerance : 25 %

Neutrophils (G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex	92	100.0	0.0	0.0	2.13	5.1	e
2	Advia	6	100.0	0.0	0.0	1.85	2.6	e
3	Yumizen/Pentra	14	85.8	7.1	7.1	1.67	15.8	e*

One result was submitted but not published because the method group was too small. (<4 results per group)

Lymphocytes
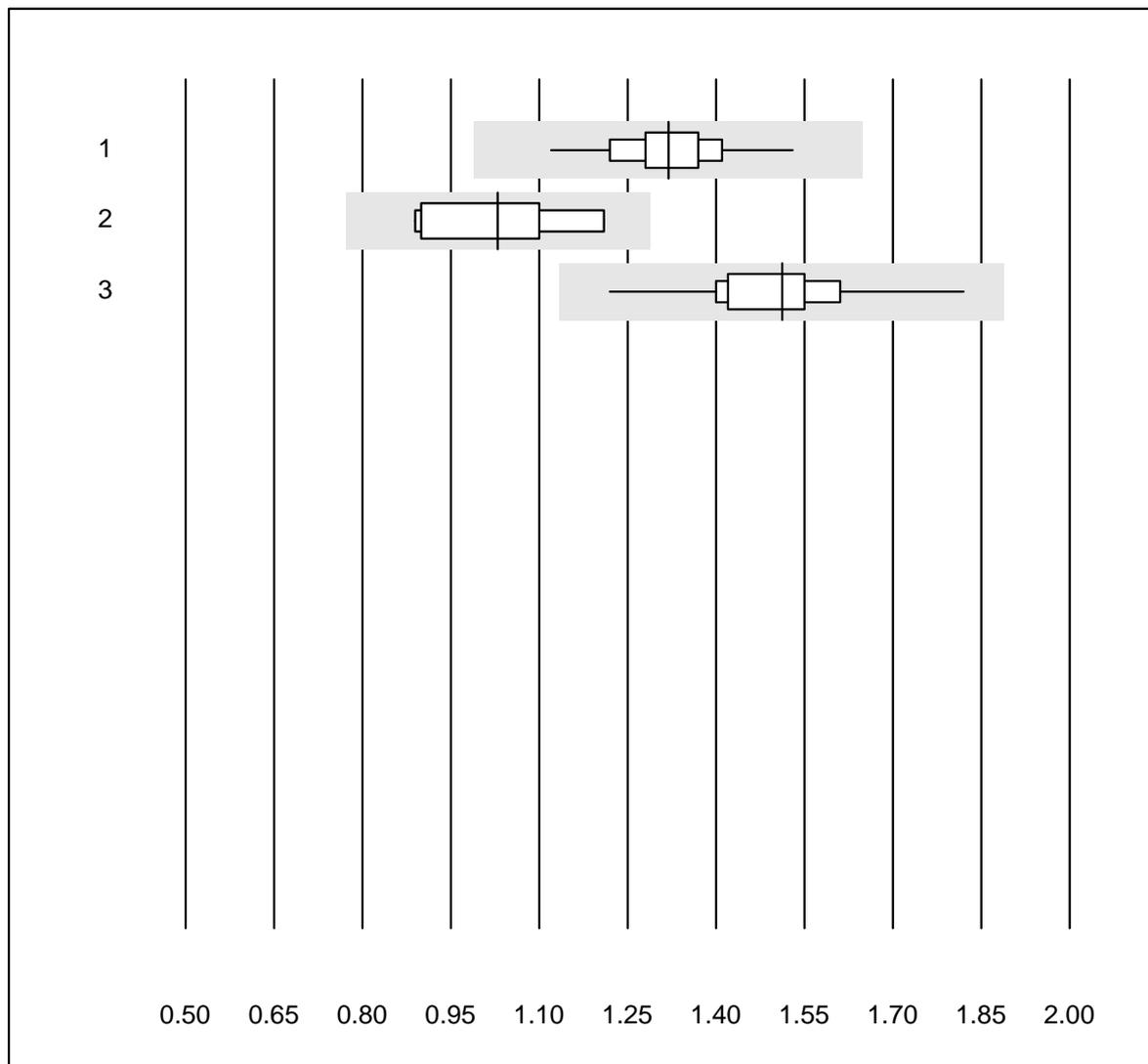
MQ tolerance : 25 %

Lymphocytes (G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex	92	100.0	0.0	0.0	1.32	6.1	e
2	Advia	6	100.0	0.0	0.0	1.03	12.1	e*
3	Yumizen/Pentra	14	85.7	0.0	14.3	1.51	9.3	e

One result was submitted but not published because the method group was too small. (<4 results per group)

Monocytes
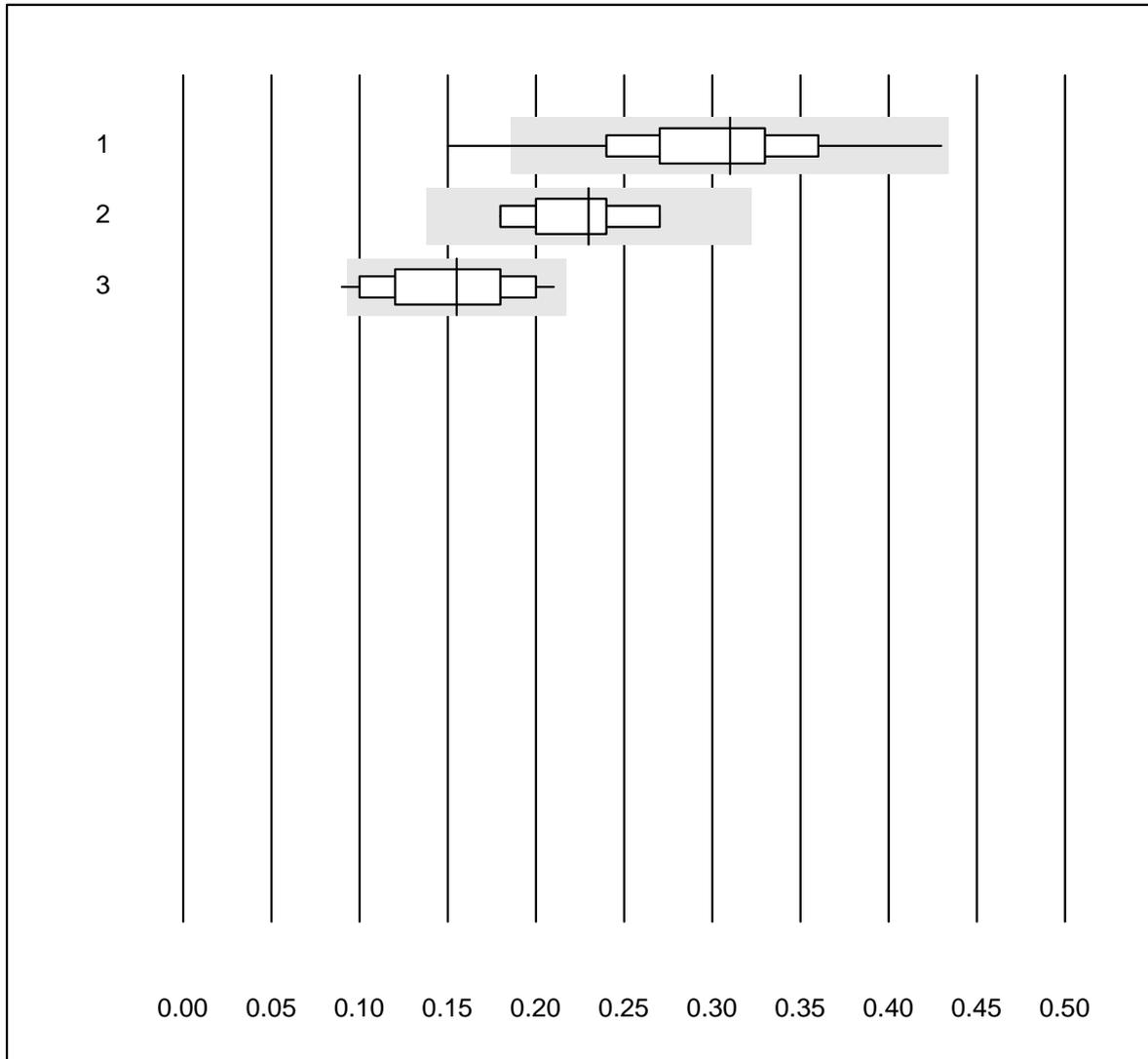
MQ tolerance : 40 %

Monocytes (G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex	92	98.9	1.1	0.0	0.31	17.2	e
2	Advia	5	100.0	0.0	0.0	0.23	15.7	e*
3	Yumizen/Pentra	14	78.6	7.1	14.3	0.16	25.4	e*

One result was submitted but not published because the method group was too small. (<4 results per group)

Eosinophils
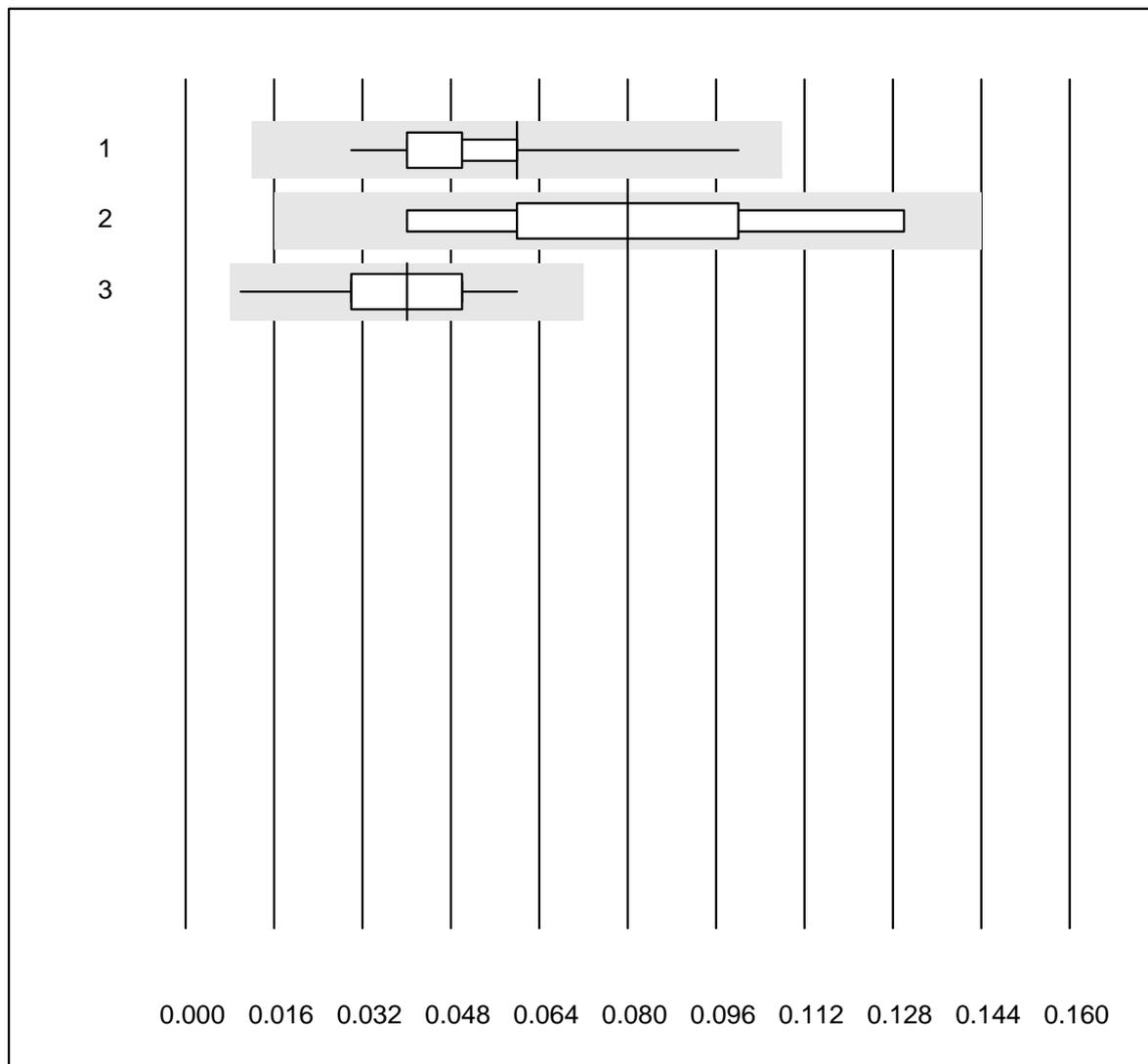
MQ tolerance : 80 %
Eosinophils (G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex	90	100.0	0.0	0.0	0.06	25.7	a
2	Advia	6	100.0	0.0	0.0	0.08	38.3	e*
3	Yumizen/Pentra	14	100.0	0.0	0.0	0.04	31.0	e

One result was submitted but not published because the method group was too small. (<4 results per group)

Basophiles

Basophiles (G/l)

0.00 0.02 0.04 0.06 0.08 0.10 0.12 0.14 0.16 0.18 0.20
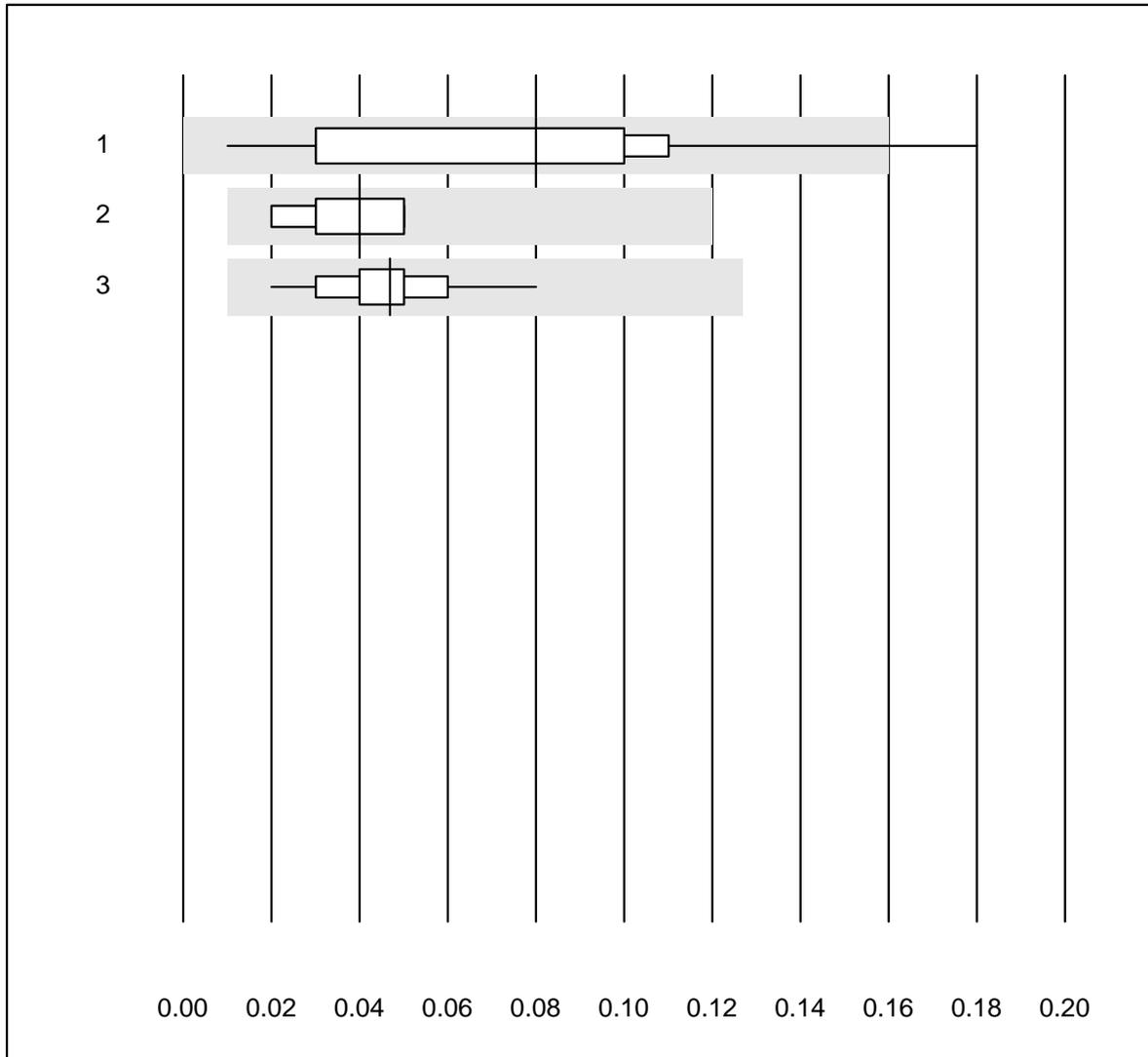
MQ tolerance : 80 %
(< 0.10: +/- 0.08 G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex	90	95.6	3.3	1.1	0.08	59.8	a
2	Advia	5	100.0	0.0	0.0	0.04	34.3	e*
3	Yumizen/Pentra	14	92.9	0.0	7.1	0.05	31.8	e

One result was submitted but not published because the method group was too small. (<4 results per group)

MCV
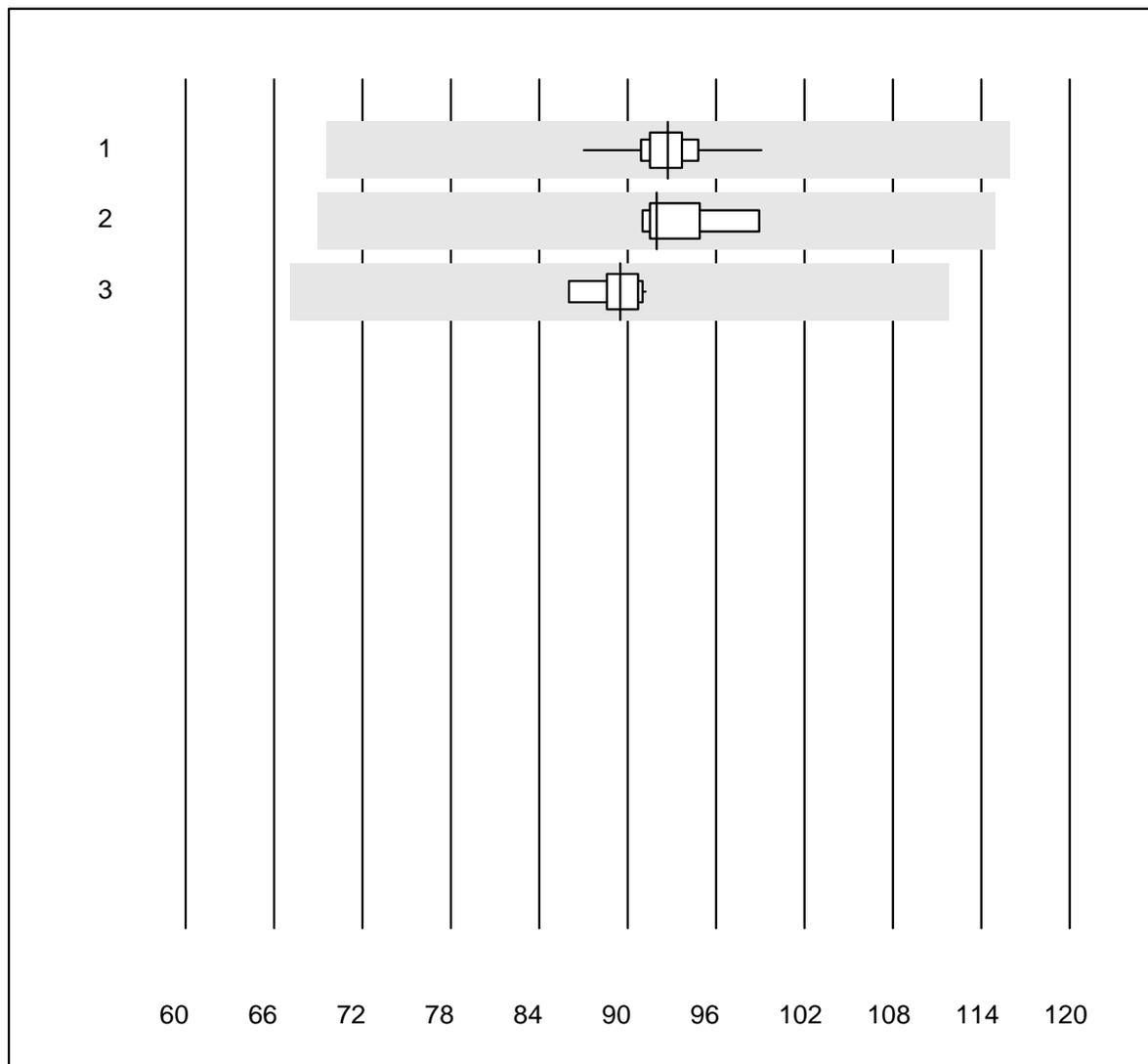
MCV (fl)

MQ tolerance : 25 %

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex	82	100.0	0.0	0.0	92.7	2.1	e
2	Advia	6	100.0	0.0	0.0	92.0	3.3	e
3	Yumizen/Pentra	10	100.0	0.0	0.0	89.5	1.8	e

One result was submitted but not published because the method group was too small. (<4 results per group)

MCH
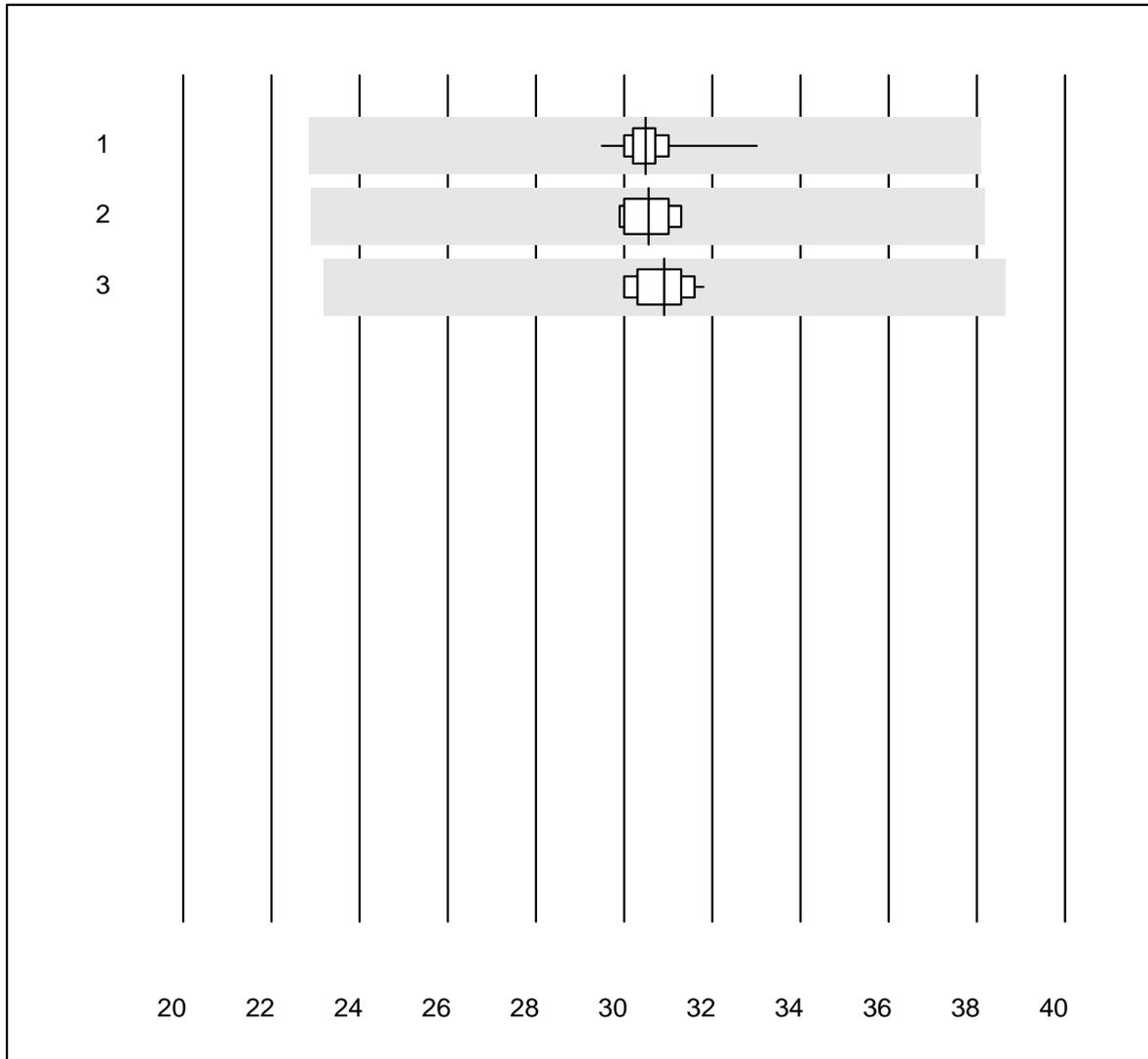
MQ tolerance : 25 %

MCH (pg)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex	83	100.0	0.0	0.0	30.5	1.5	e
2	Advia	6	100.0	0.0	0.0	30.6	1.8	e
3	Yumizen/Pentra	10	100.0	0.0	0.0	30.9	2.0	e

One result was submitted but not published because the method group was too small. (<4 results per group)

MCHC
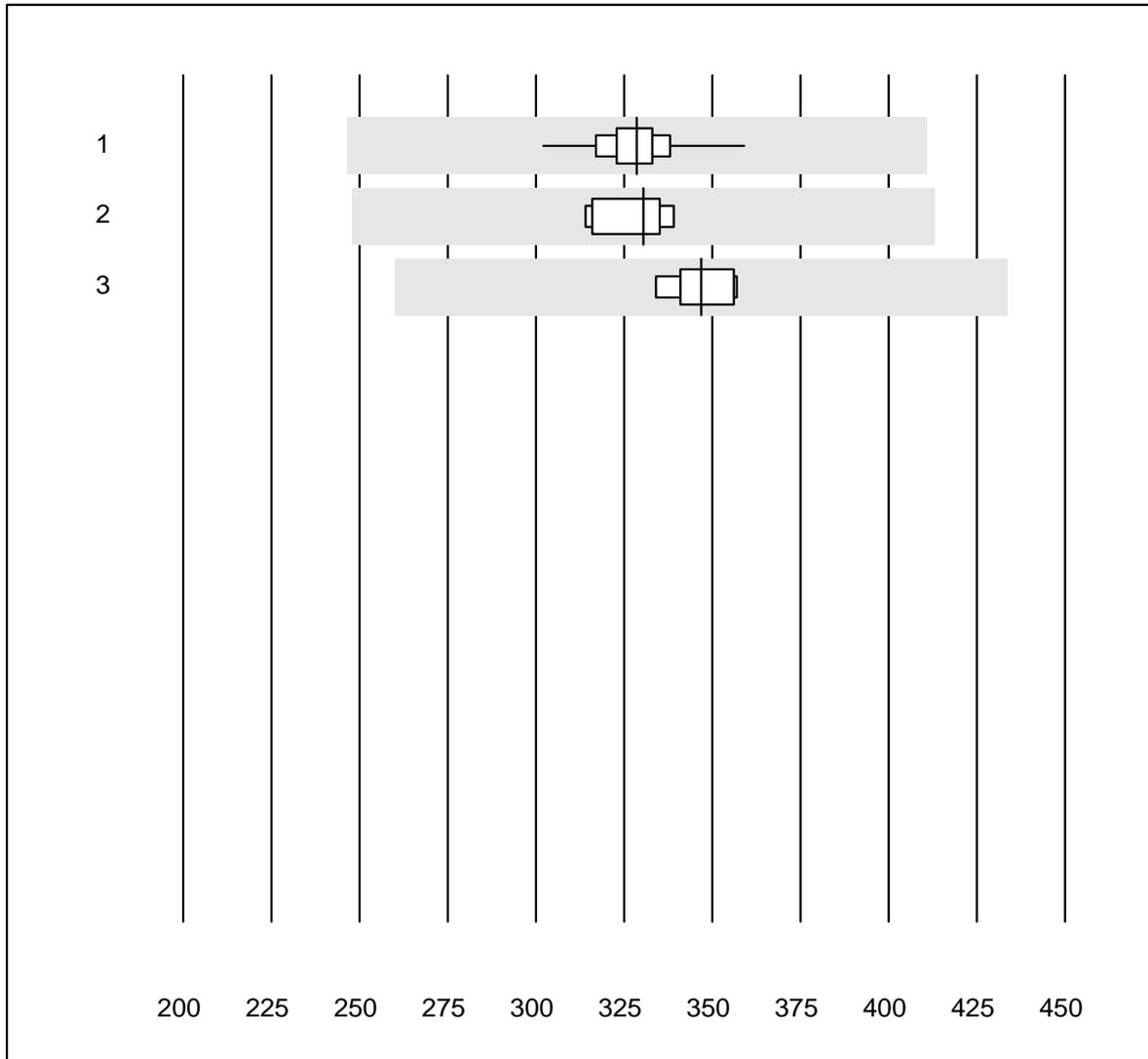
MQ tolerance : 25 %

MCHC (g/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex	84	100.0	0.0	0.0	329	2.9	e
2	Advia	6	100.0	0.0	0.0	331	3.2	e
3	Yumizen/Pentra	10	100.0	0.0	0.0	347	2.4	e

One result was submitted but not published because the method group was too small. (<4 results per group)

RDW
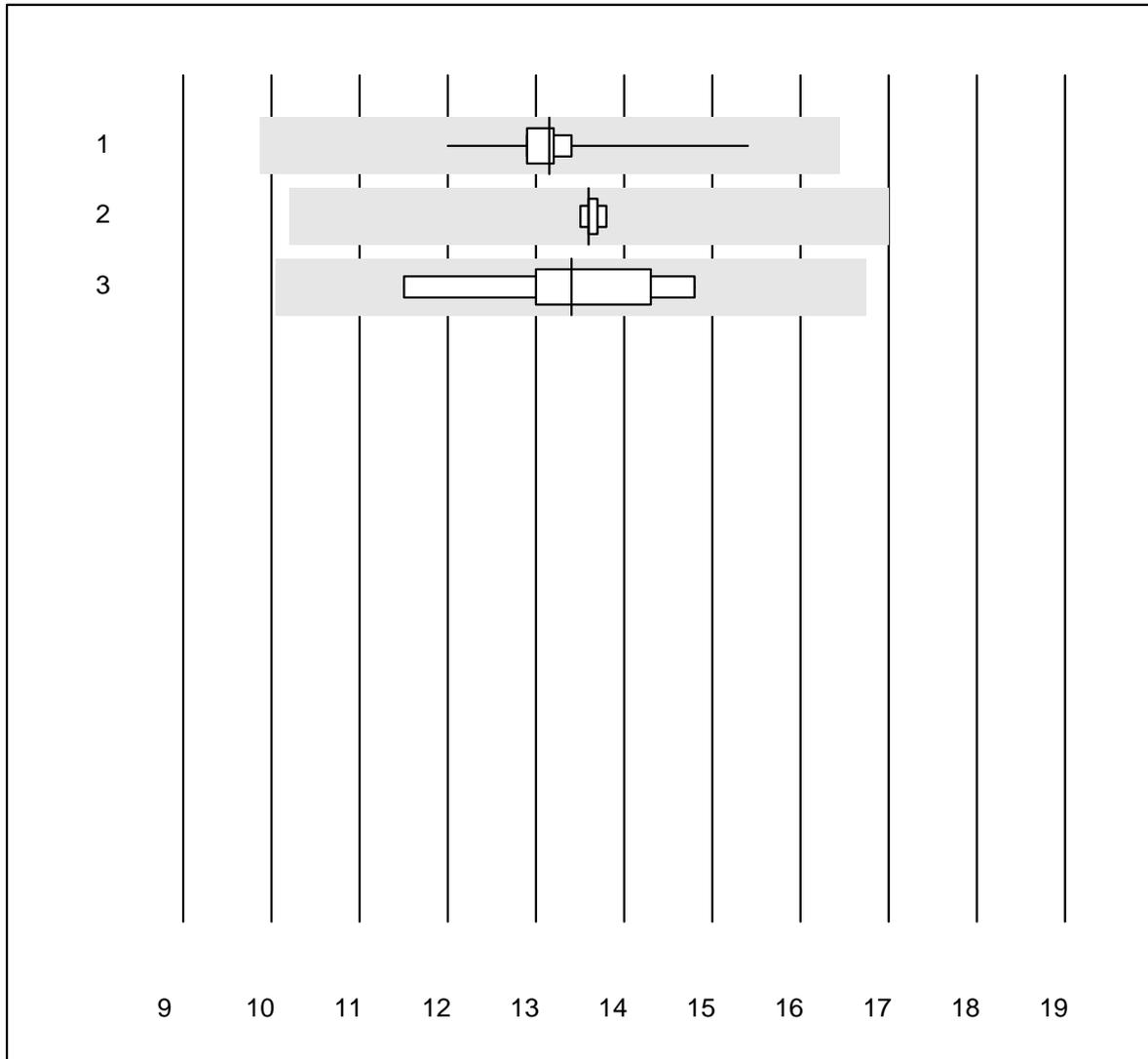
MQ tolerance : 25 %

RDW (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex	80	100.0	0.0	0.0	13.2	3.5	e
2	Advia	5	100.0	0.0	0.0	13.6	0.8	e
3	Yumizen/Pentra	9	100.0	0.0	0.0	13.4	8.3	e

One result was submitted but not published because the method group was too small. (<4 results per group)

# Immature Granulocytes

0.000 0.015 0.030 0.045 0.060 0.075 0.090 0.105 0.120 0.135 0.150

Immature Granulocytes (G/l)
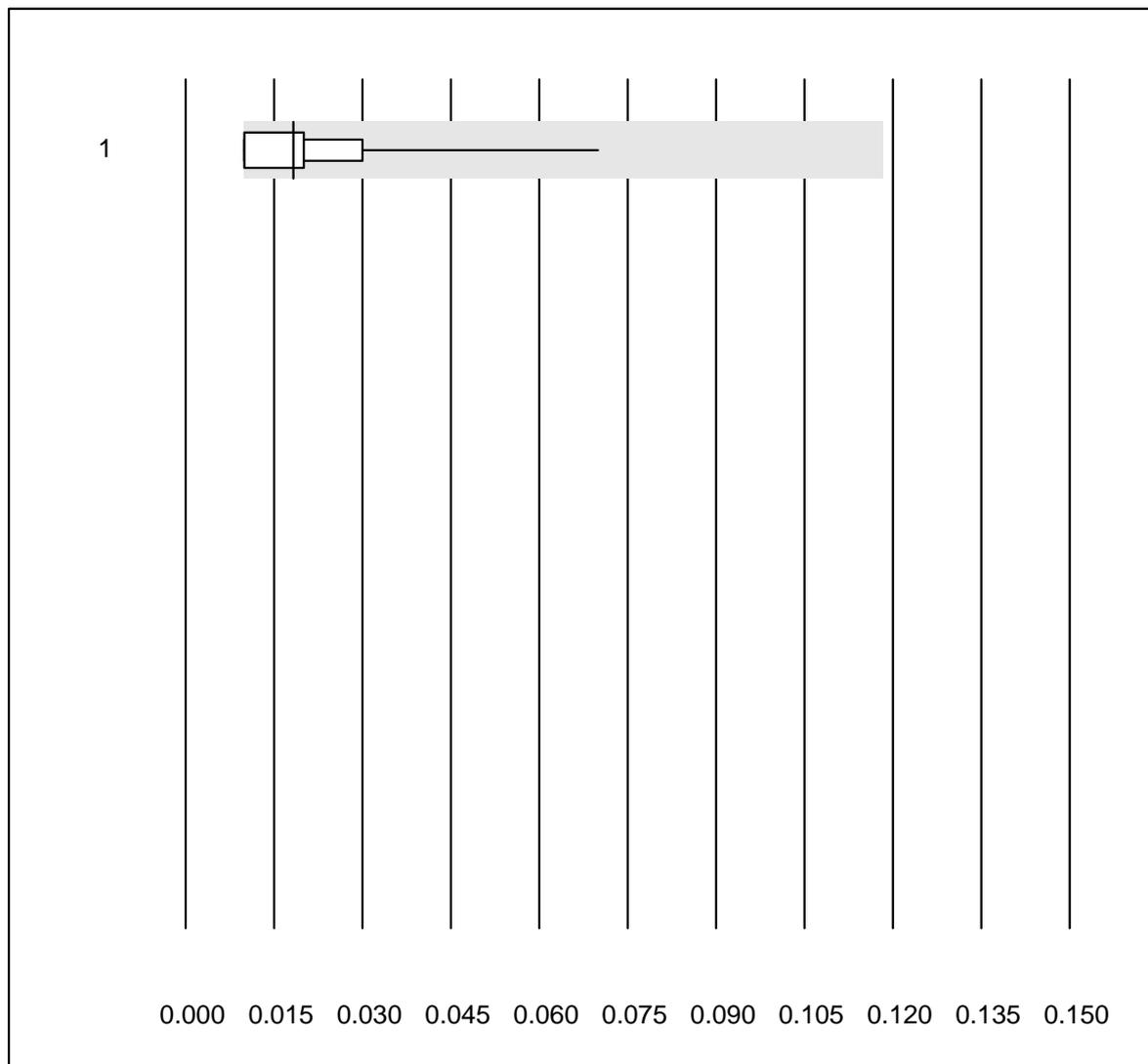
MQ tolerance : 25 %
(< 0.10: +/- 0.10 G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex	71	100.0	0.0	0.0	0.02	56.9	e*

Reticulocytes
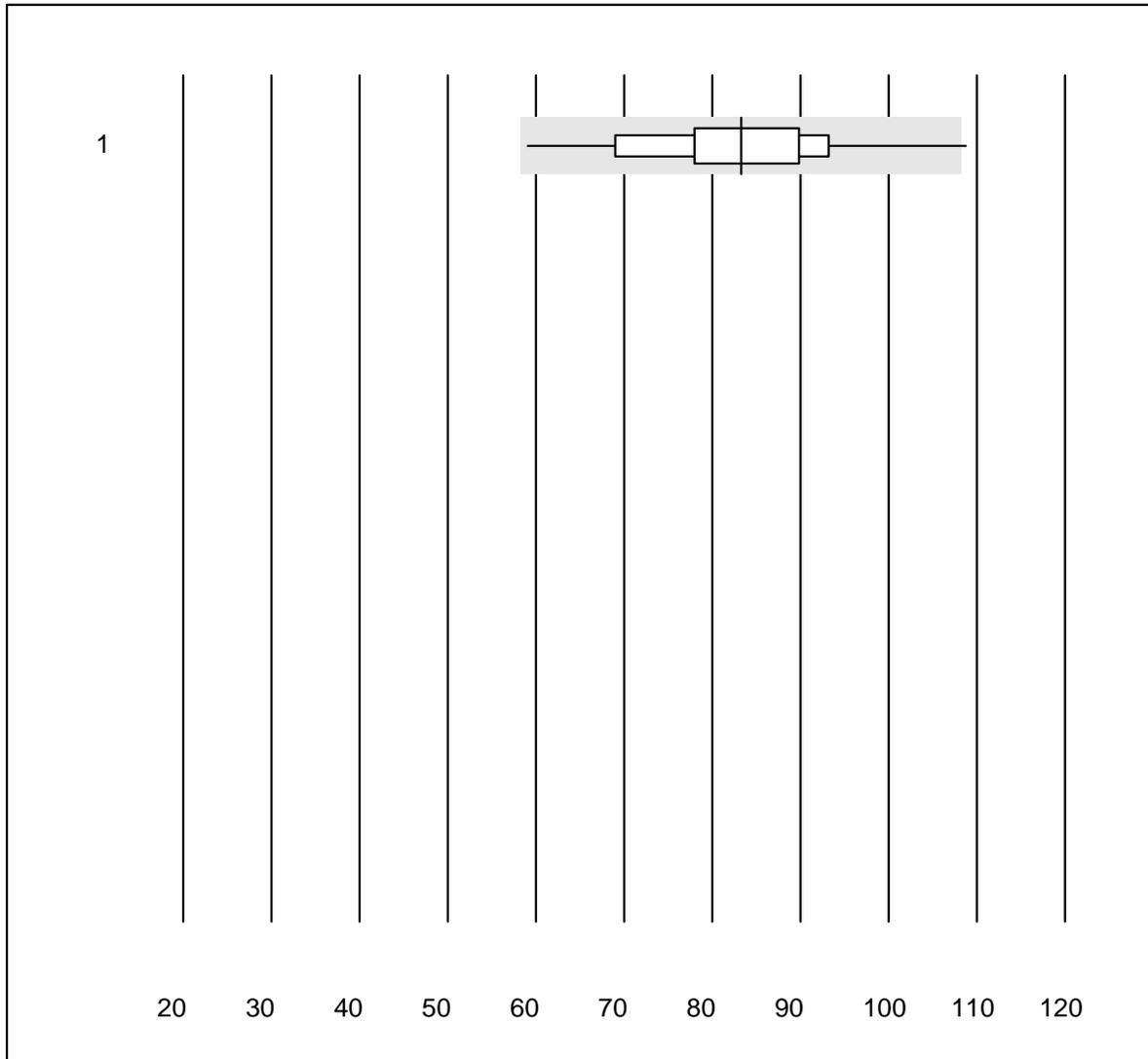
MQ tolerance : 30 %

Reticulocytes (G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sysmex	48	95.8	2.1	2.1	83.2	11.7	e

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Hämolyseindex Probe A
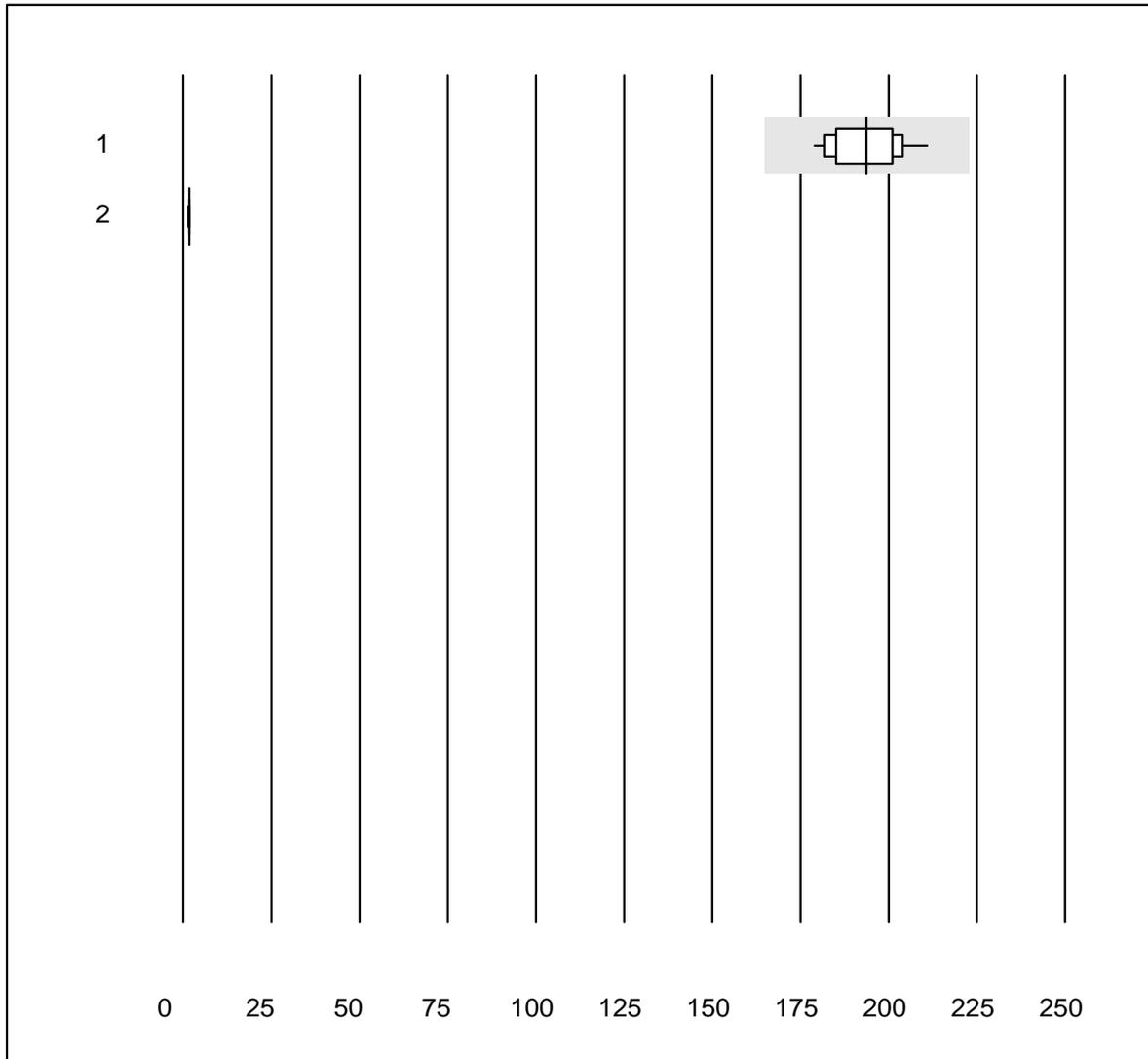
MQ tolerance : 15 %   Hämolyseindex Probe A ()

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	21	100.0	0.0	0.0	193.71	4.9	e
2	Architect	6	100.0	0.0	0.0	1.62	4.3	e

One result was submitted but not published because the method group was too small. (<4 results per group)

Hämolyseindex Probe B

| | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
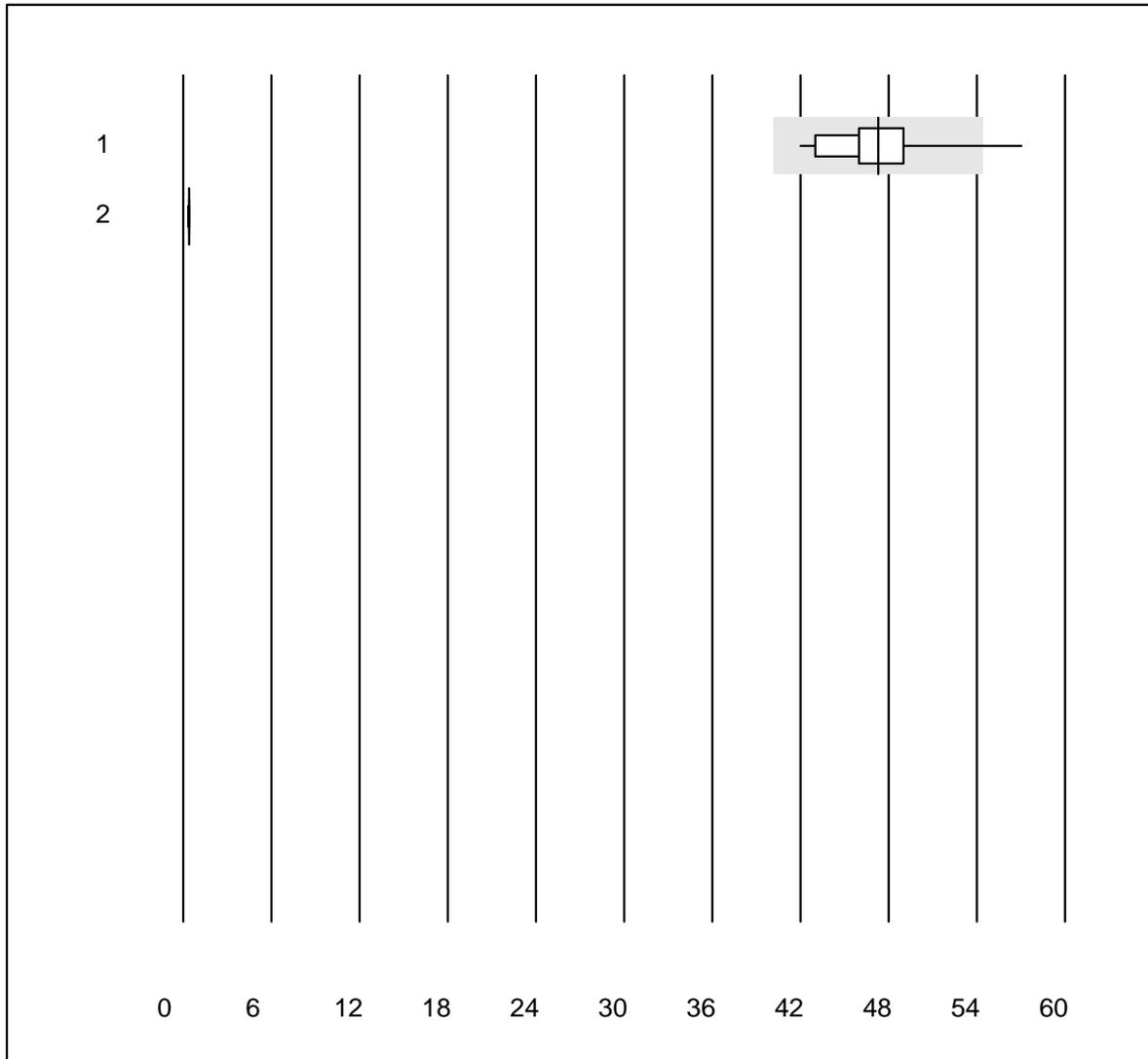
MQ tolerance : 15 % Hämolyseindex Probe B ()

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	21	95.2	4.8	0.0	47.29	7.1	e
2	Architect	6	100.0	0.0	0.0	0.38	4.6	e*

One result was submitted but not published because the method group was too small. (<4 results per group)

Erythrocyte sedimentation rate 1h
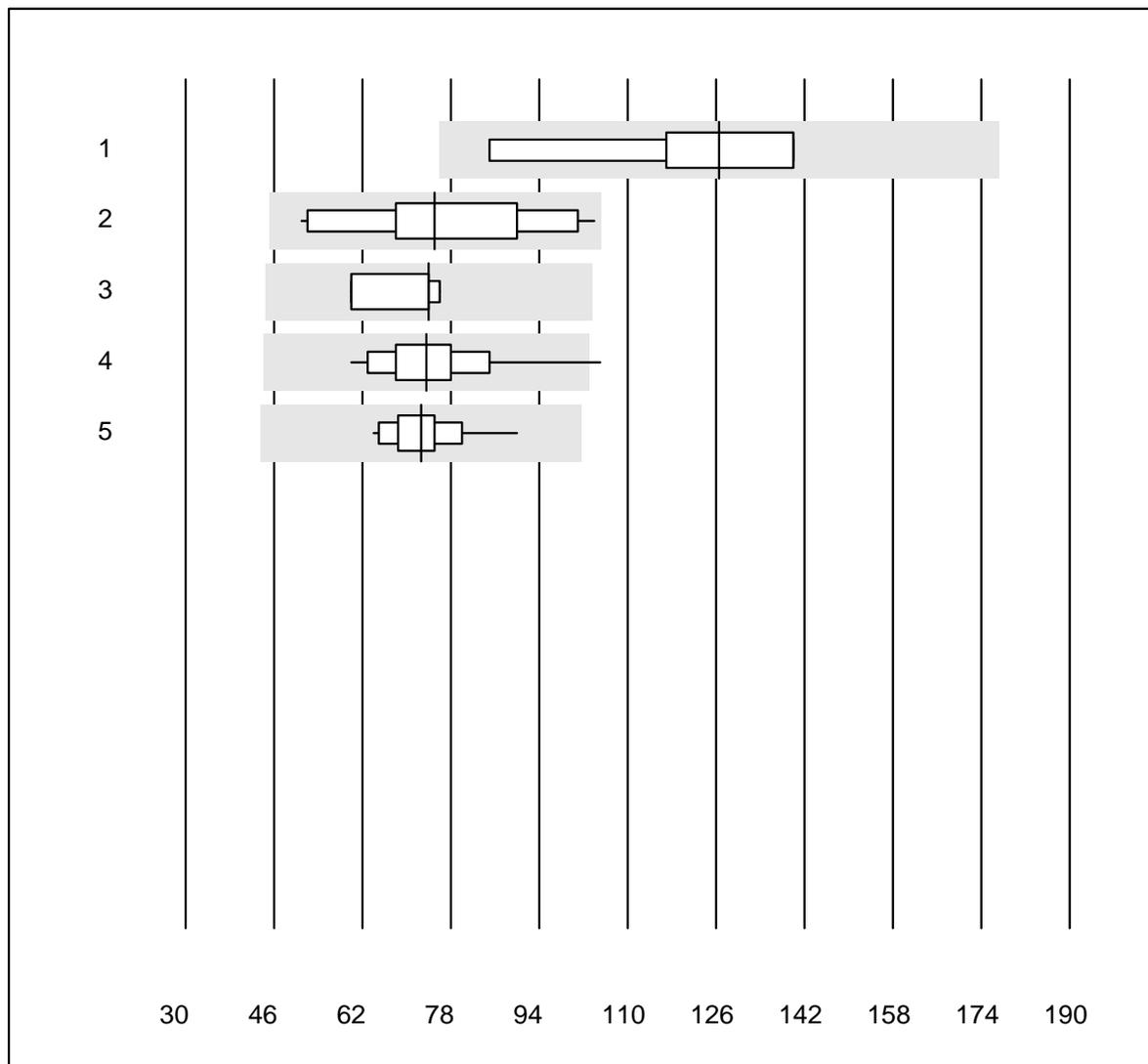
MQ tolerance : 40 %   Erythrocyte sedimentation rate 1h (mm/h)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	MINI-CUBE	15	93.3	0.0	6.7	127	17.1	e
2	Sarstedt Sedivette	16	93.7	0.0	6.3	75	21.8	e*
3	Sarstedt Microvette	4	100.0	0.0	0.0	74	10.4	e*
4	BD Seditainer	43	95.4	2.3	2.3	74	12.5	e
5	Other methods	17	76.5	0.0	23.5	73	9.6	e

Erythrocyte sedimentation rate 2h
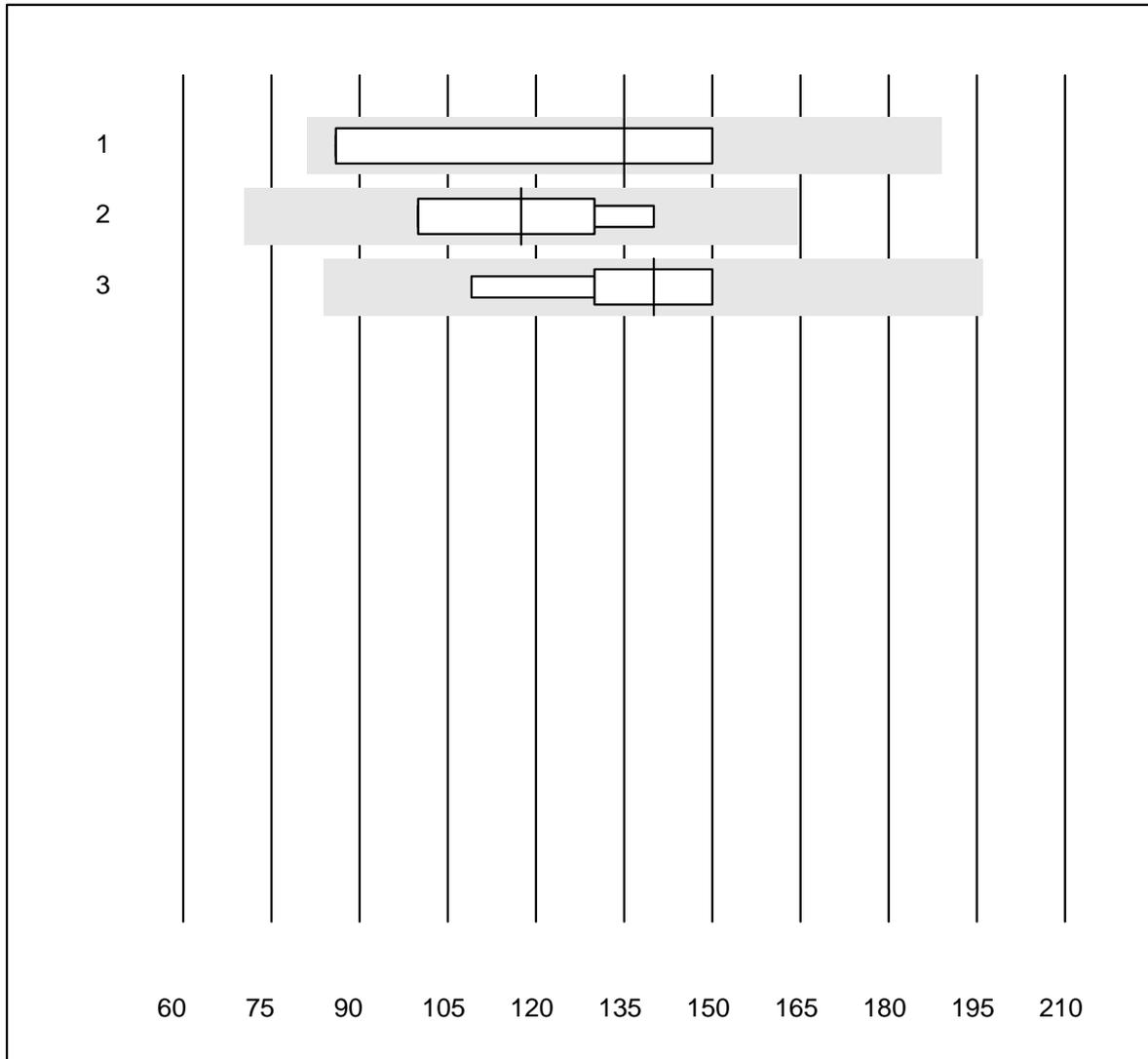
MQ tolerance : 40 %   Erythrocyte sedimentation rate 2h (mm/2h)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Sarstedt Sedivette	4	100.0	0.0	0.0	135	24.1	e*
2	BD Seditainer	4	100.0	0.0	0.0	118	16.3	e*
3	Other methods	6	100.0	0.0	0.0	140	11.3	e

Hemoglobin HS
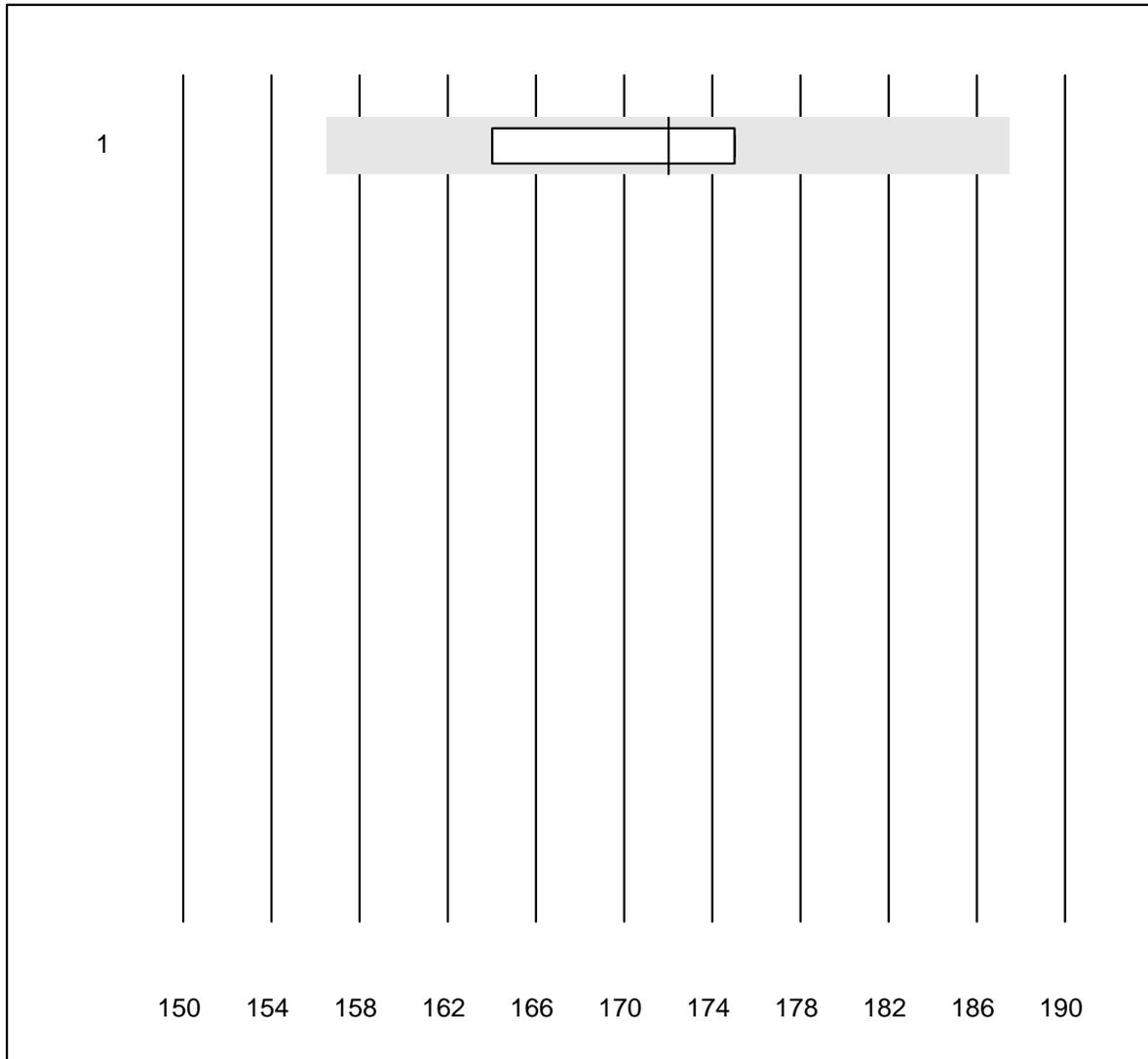
MQ tolerance : 9 %

Hemoglobin HS (g/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	PixCell HemoScreen	6	50.0	0.0	50.0	172.0	3.3	a

Hematocrit HS
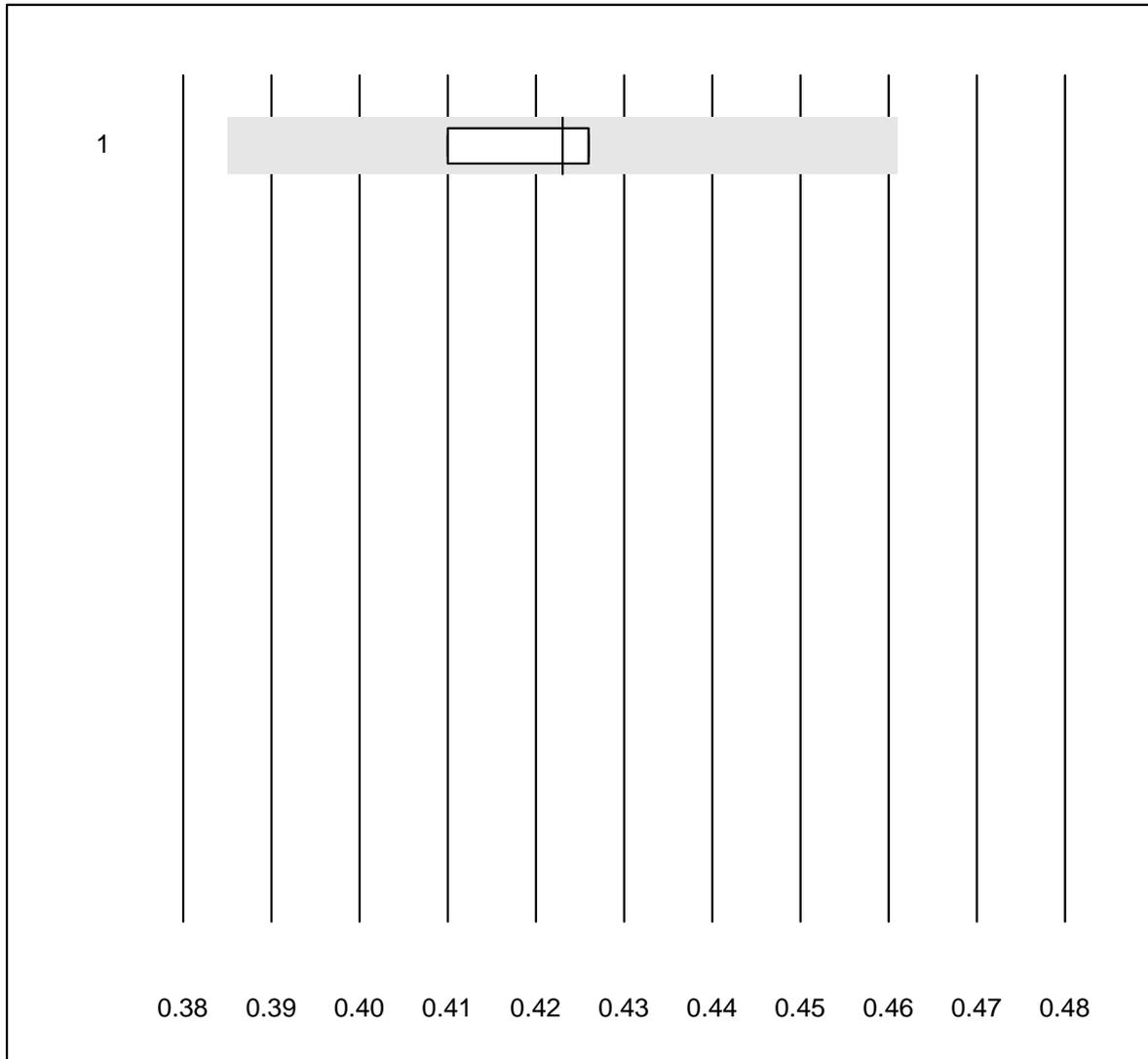
MQ tolerance : 9 %

Hematocrit HS (l/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	PixCell HemoScreen	6	50.0	0.0	50.0	0.4	1.9	a

Erythrocytes HS

| | 3.00 | 3.35 | 3.70 | 4.05 | 4.40 | 4.75 | 5.10 | 5.45 | 5.80 | 6.15 | 6.50 |
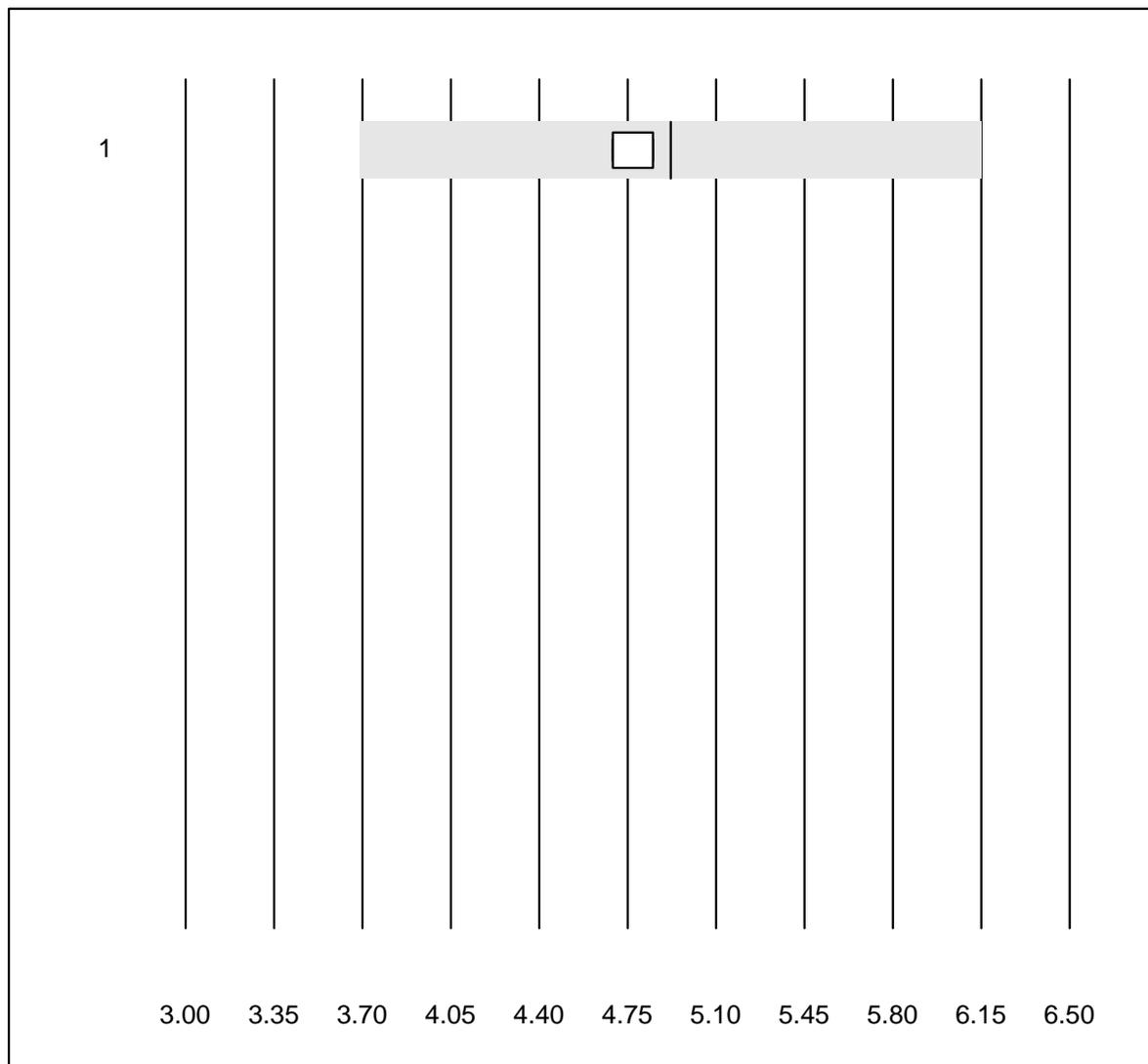
MQ tolerance : 25 %   Erythrocytes HS (T/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	PixCell HemoScreen	6	50.0	0.0	50.0	4.92	1.8	a

Leucocytes HS
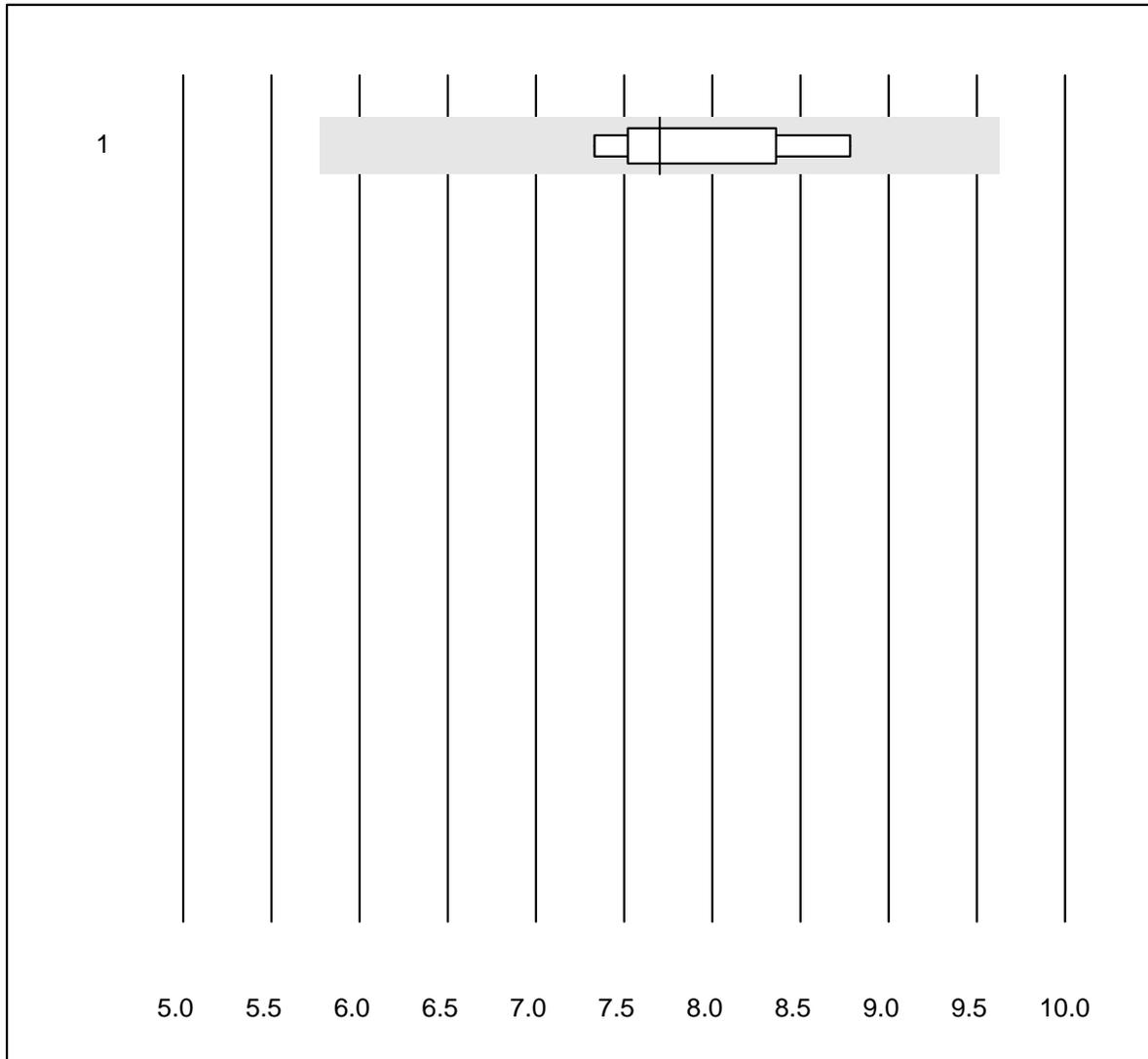
MQ tolerance : 25 %   Leucocytes HS (G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	PixCell HemoScreen	6	100.0	0.0	0.0	7.70	7.1	a

Trombocytes HS
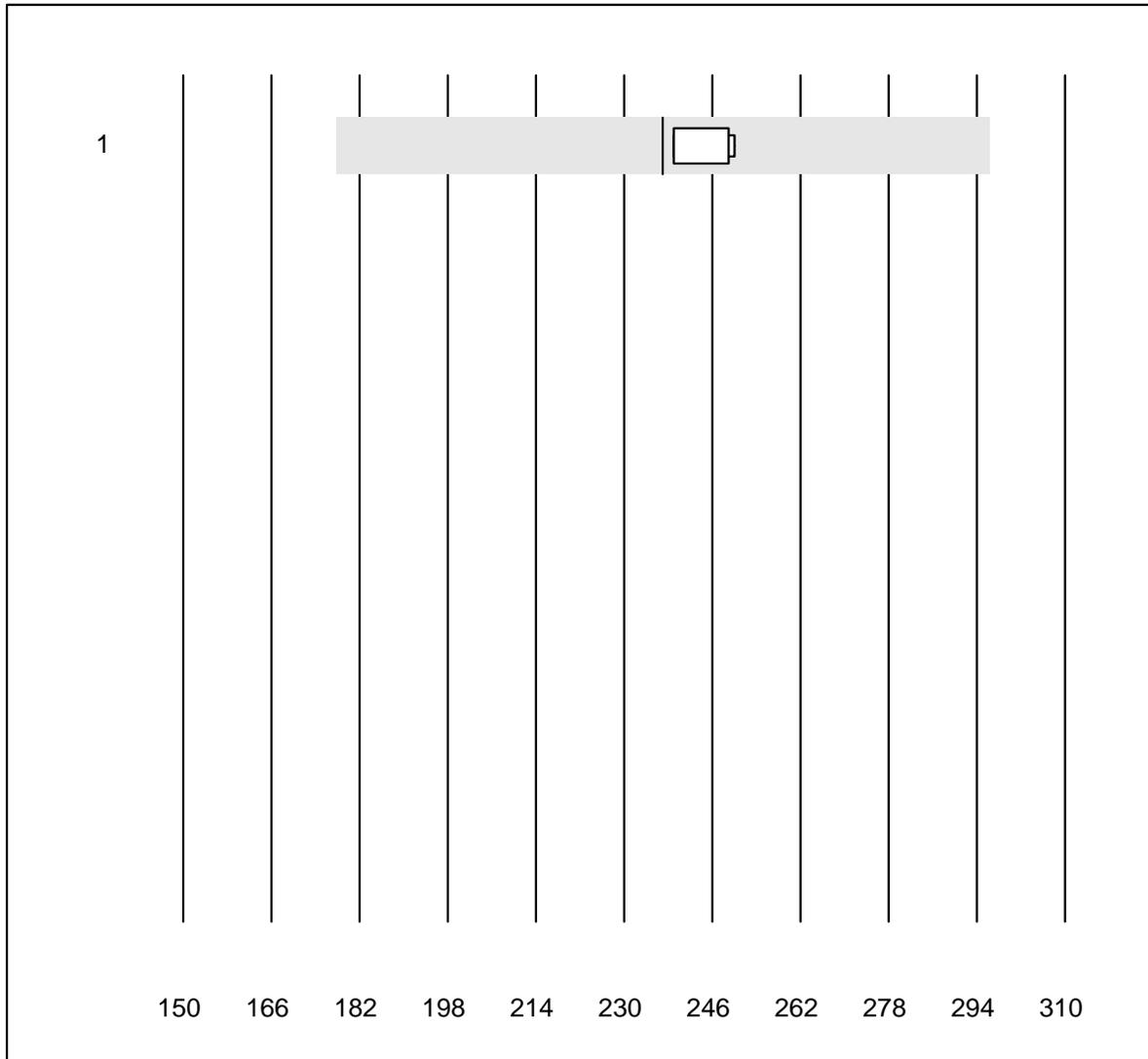
MQ tolerance : 25 %   Trombocytes HS (G/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	PixCell HemoScreen	6	100.0	0.0	0.0	237.0	2.0	a

CRP

QUALAB tolerance : 21 %

CRP (mg/l)
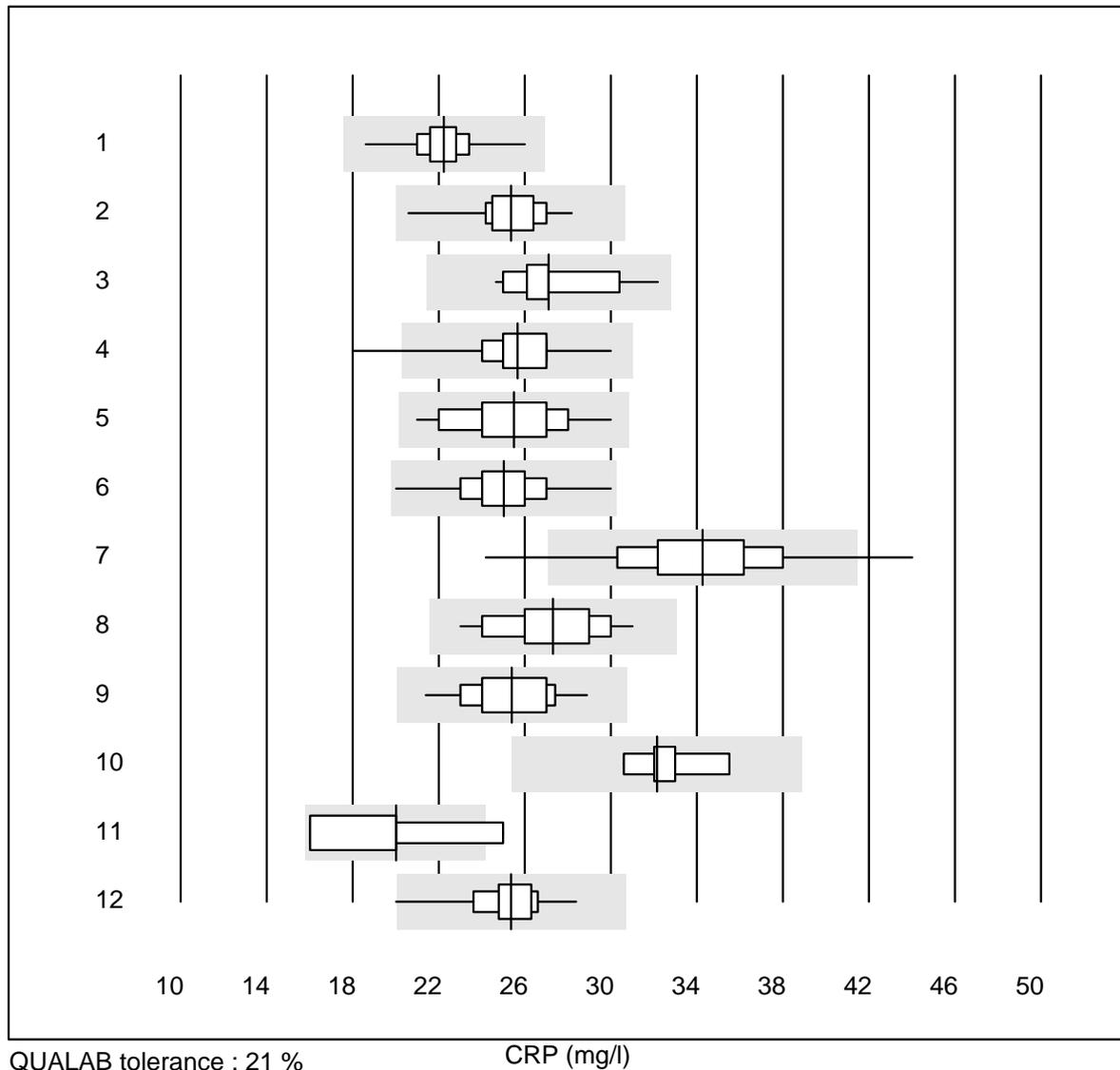
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas b101	322	99.4	0.0	0.6	22.2	4.5	e
2	Cobas	32	100.0	0.0	0.0	25.4	6.4	e
3	Turbidimetry	16	87.5	0.0	12.5	27.1	8.0	e
4	Afinion	1171	97.8	2.0	0.2	25.7	6.2	e
5	NycoCard SingleTest-	83	90.4	0.0	9.6	25.5	8.6	e
6	Quick Read go	93	95.7	0.0	4.3	25.0	7.2	e
7	Eurolyser	88	79.5	8.0	12.5	34.3	10.7	e
8	Fuji Dri-Chem	15	86.7	0.0	13.3	27.3	8.5	e
9	Autolyser/DiaSys	12	100.0	0.0	0.0	25.4	8.1	e
10	Piccolo	6	100.0	0.0	0.0	32.2	5.0	e
11	Nephelometry	4	75.0	25.0	0.0	20.0	18.2	e*
12	Celltac chemi	45	97.8	2.2	0.0	25.4	5.7	e

One result was submitted but not published because the method group was too small. (<4 results per group)

CRP

| | | 30.0 | 32.5 | 35.0 | 37.5 | 40.0 | 42.5 | 45.0 | 47.5 | 50.0 | 52.5 | 55.0 |
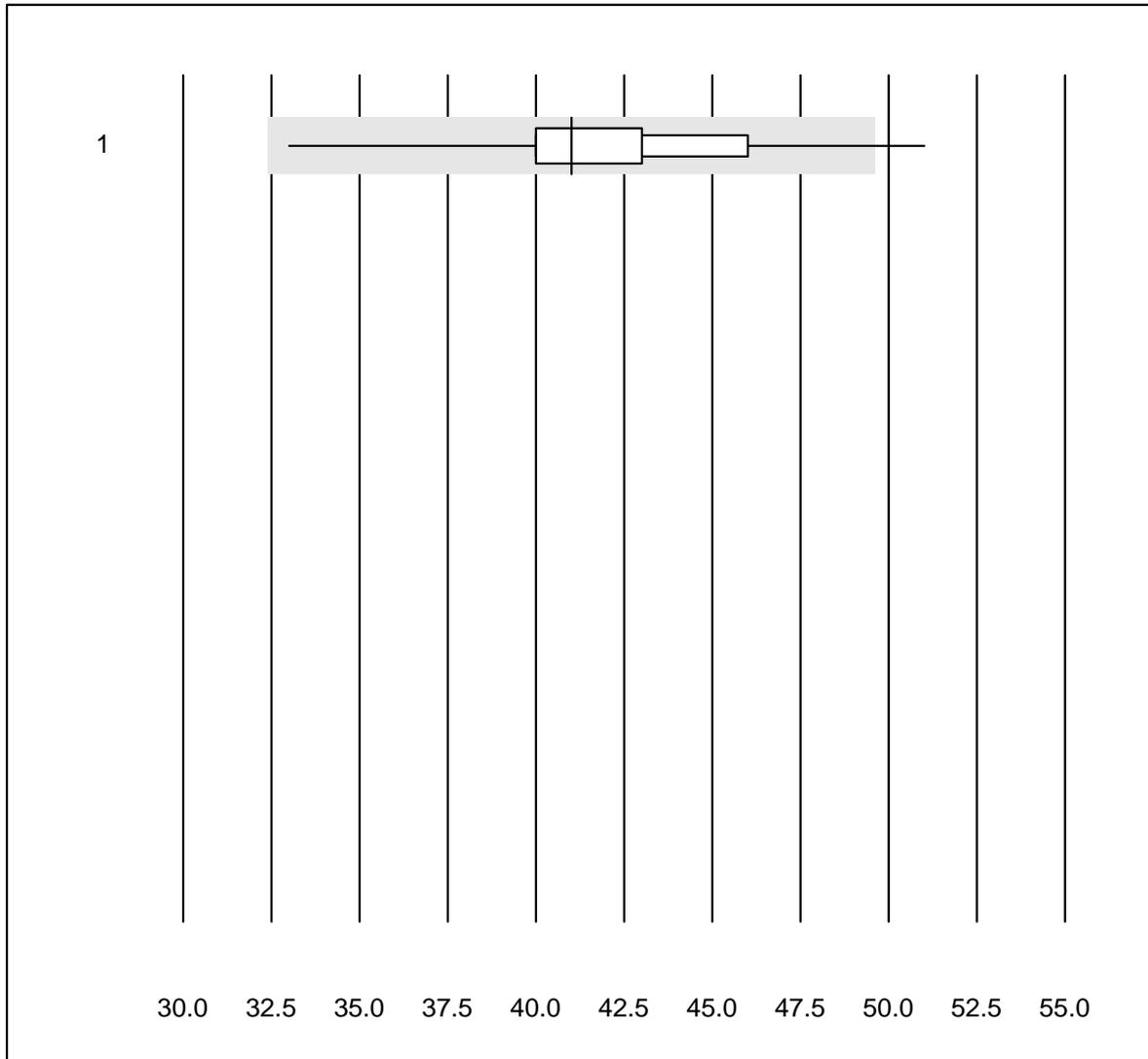
QUALAB tolerance : 21 %

CRP (mg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	QuikRead (Vollblut)	25	84.0	4.0	12.0	41.0	8.3	e

CRP
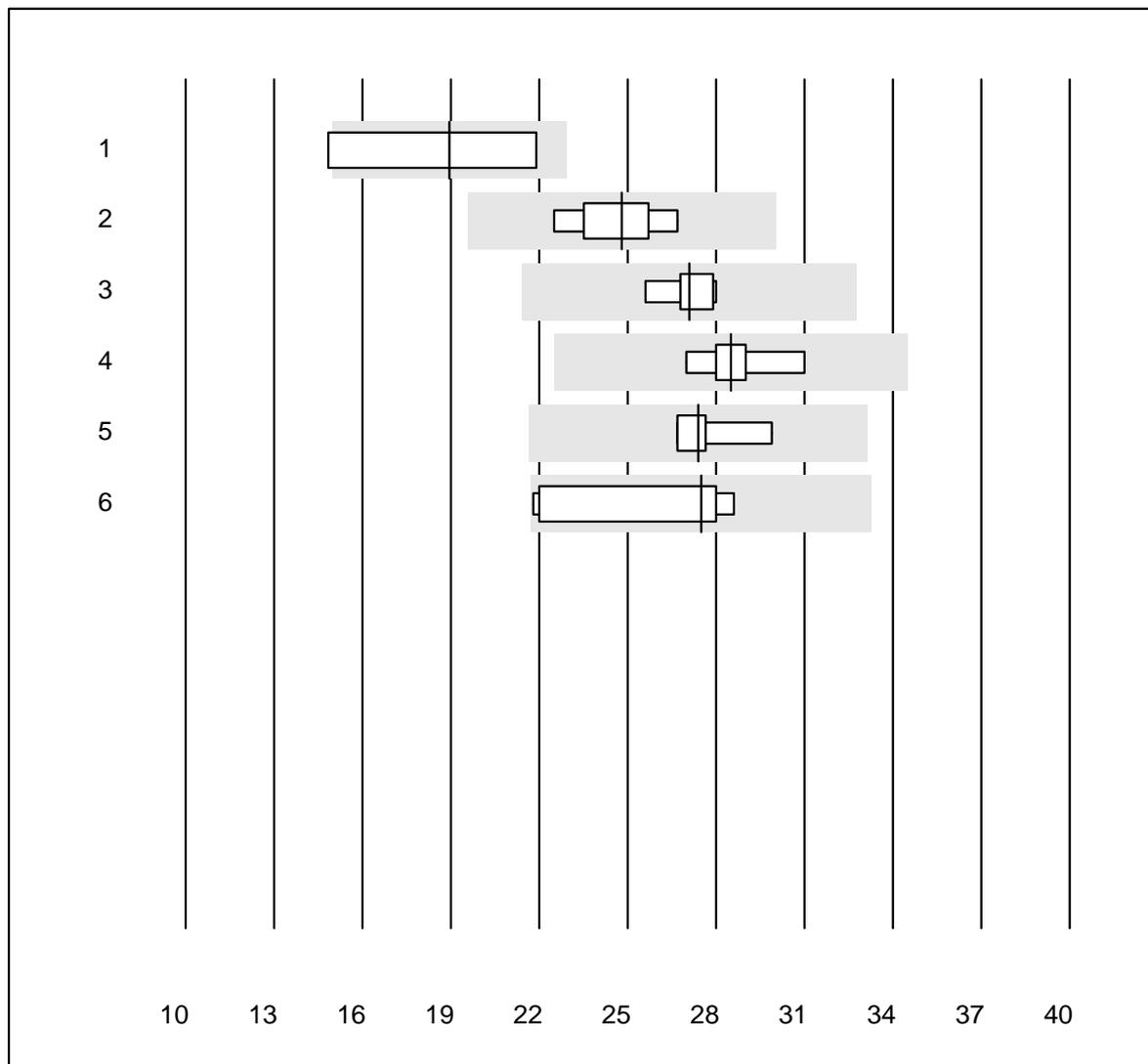
QUALAB tolerance : 21 %

CRP (mg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Lumira Dx	6	33.3	16.7	50.0	19.0	21.5	e*
2	Spinit	9	100.0	0.0	0.0	24.8	5.4	e
3	Architect	10	100.0	0.0	0.0	27.1	3.1	e
4	AQT 90 FLEX	6	100.0	0.0	0.0	28.5	4.8	e
5	Spotchem D-Concept	5	100.0	0.0	0.0	27.4	4.7	e
6	Other methods	6	100.0	0.0	0.0	27.5	11.9	e*

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

IgG

QUALAB tolerance : 15 %

IgG (g/l)
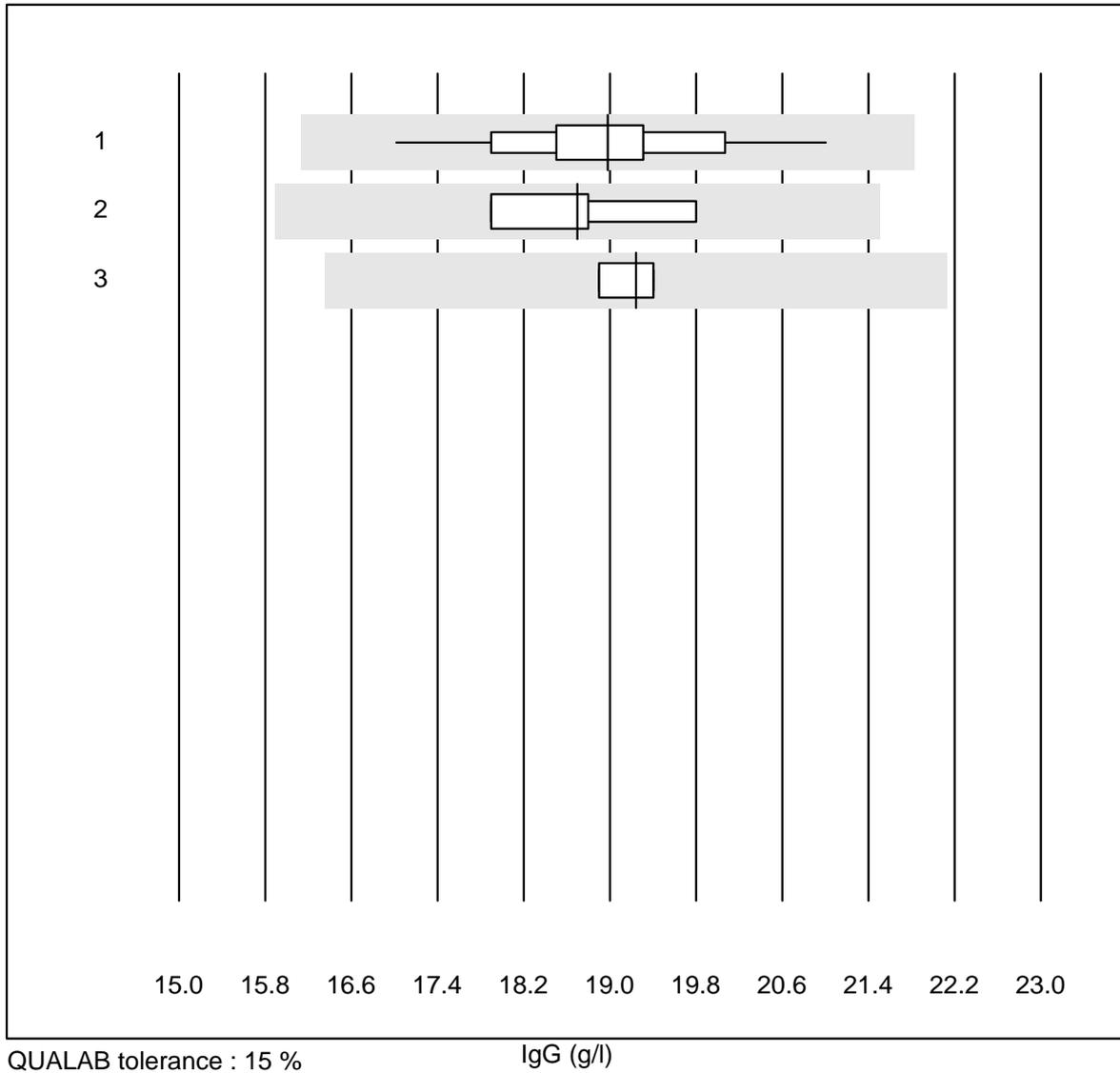
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Turbidimetry	19	100.0	0.0	0.0	18.98	4.5	e
2	Nephelometry	4	100.0	0.0	0.0	18.70	4.2	e*
3	Other methods	4	100.0	0.0	0.0	19.25	1.3	e

IgA
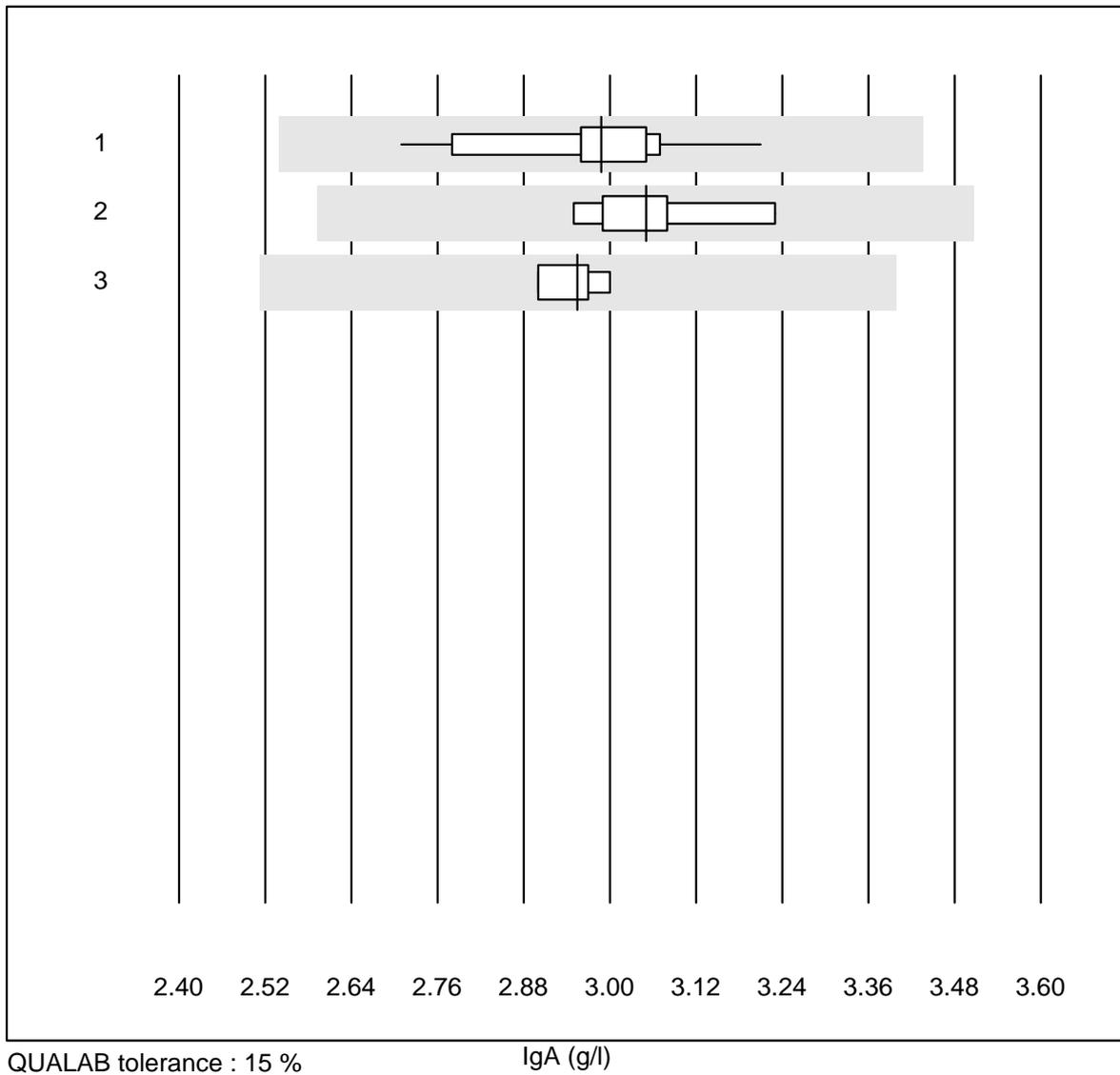
QUALAB tolerance : 15 %

IgA (g/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Turbidimetry	17	100.0	0.0	0.0	2.99	3.8	e
2	Nephelometry	5	100.0	0.0	0.0	3.05	3.5	e
3	Other methods	4	100.0	0.0	0.0	2.96	1.4	e

IgM
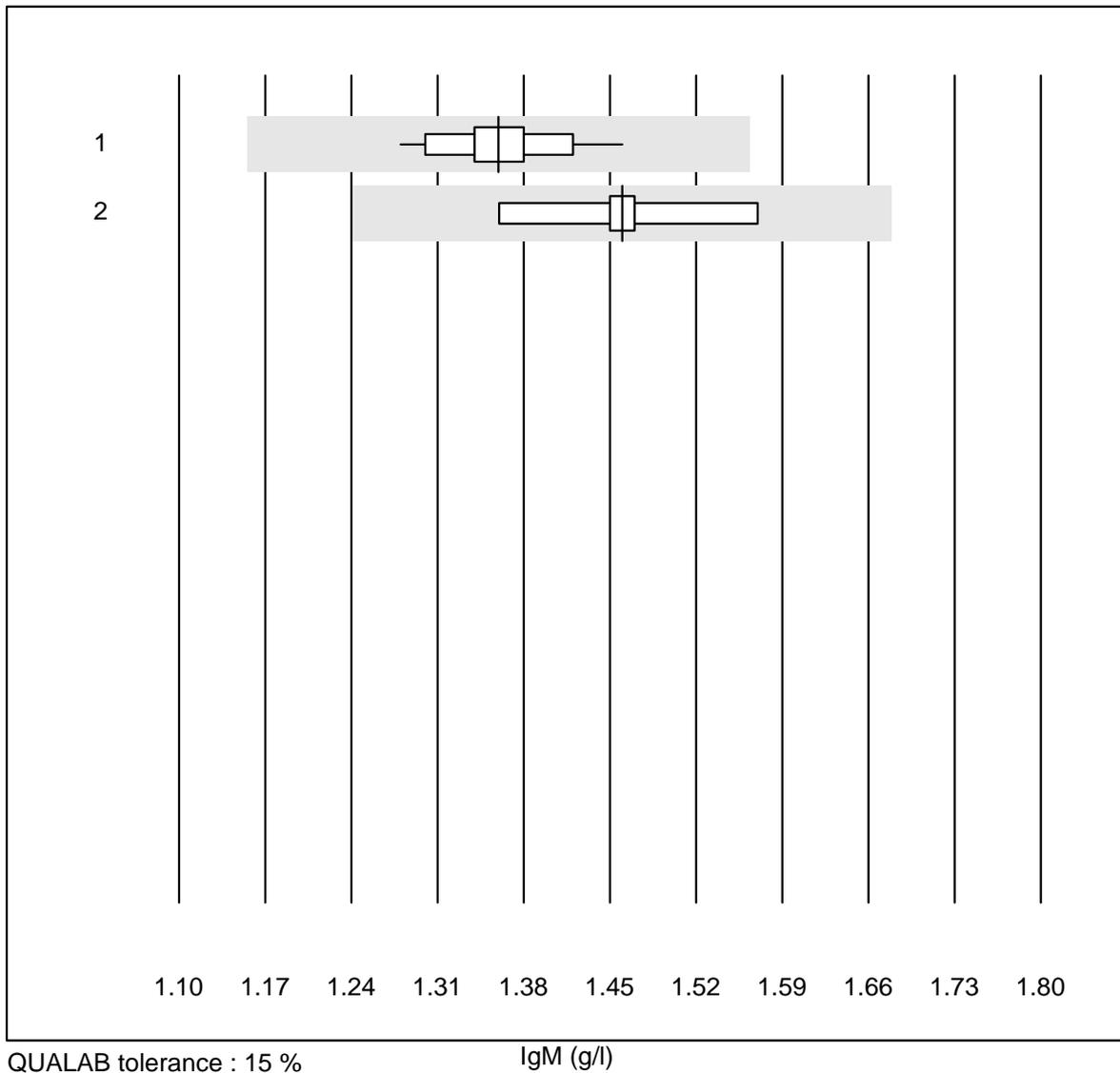
QUALAB tolerance : 15 %

IgM (g/l)

Scale values: 1.10 1.17 1.24 1.31 1.38 1.45 1.52 1.59 1.66 1.73 1.80

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Turbidimetry	18	100.0	0.0	0.0	1.36	3.3	e
2	Nephelometry	5	100.0	0.0	0.0	1.46	5.1	e*

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

IgE

QUALAB tolerance : 30 %　　　　　　　　IgE (kU/L)
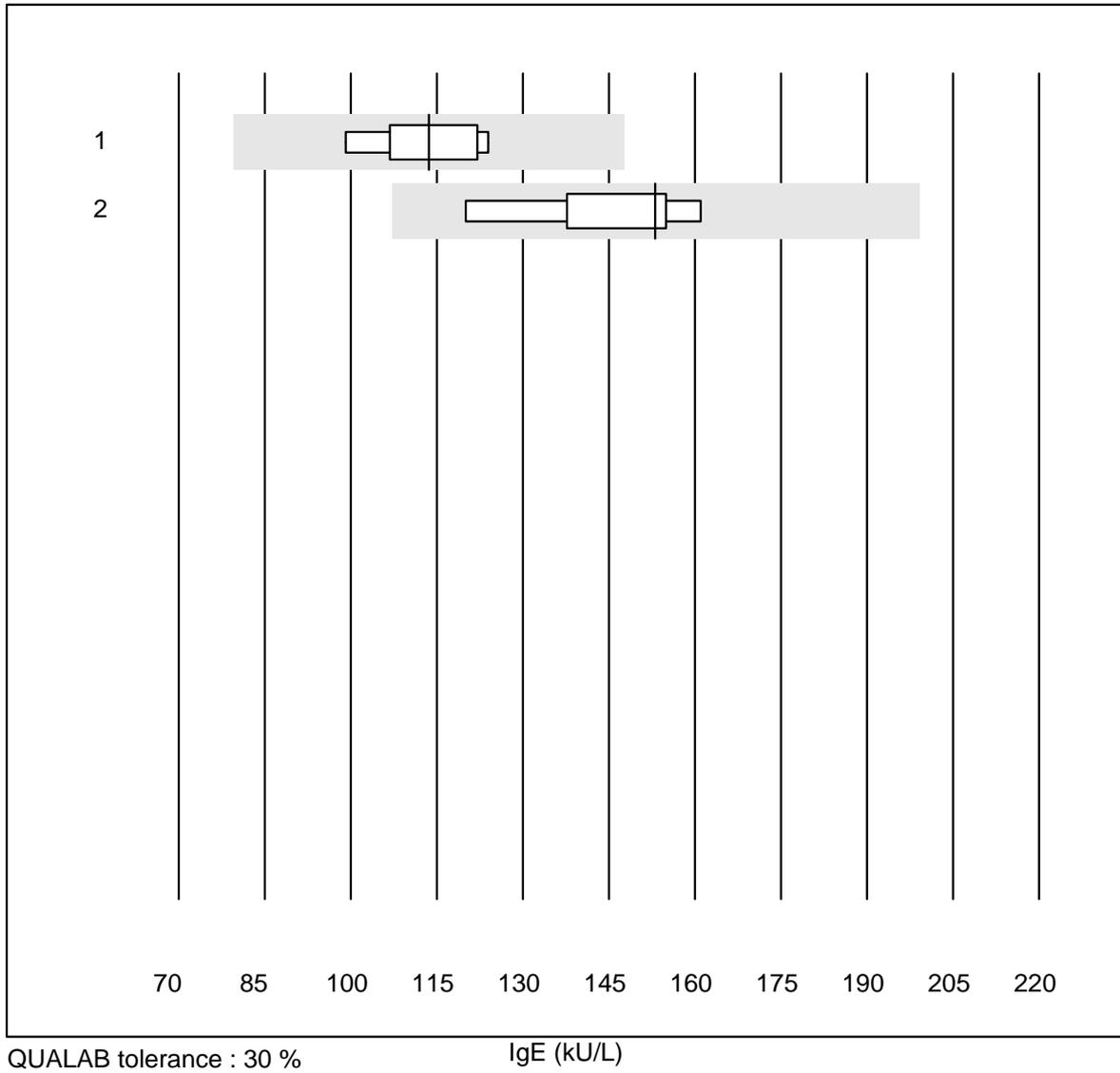
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	5	100.0	0.0	0.0	114	9.2	e*
2	Cobas	6	100.0	0.0	0.0	153	10.3	e*

Alpha-1-Antitrypsin
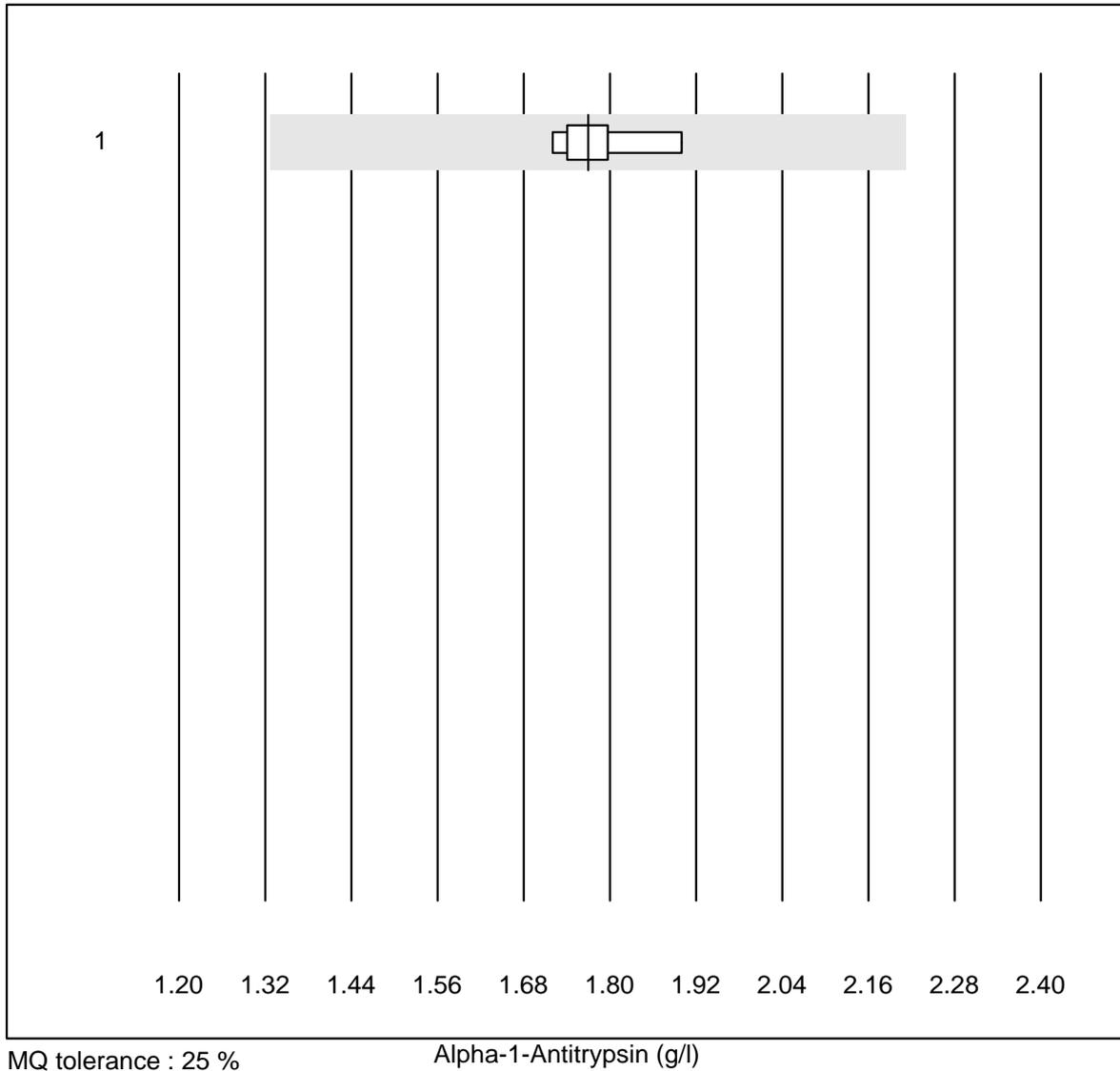
1

| | 1.20 | 1.32 | 1.44 | 1.56 | 1.68 | 1.80 | 1.92 | 2.04 | 2.16 | 2.28 | 2.40 |

MQ tolerance : 25 %

Alpha-1-Antitrypsin (g/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	8	100.0	0.0	0.0	1.77	3.2	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Anti-Streptolysin-Antibodies
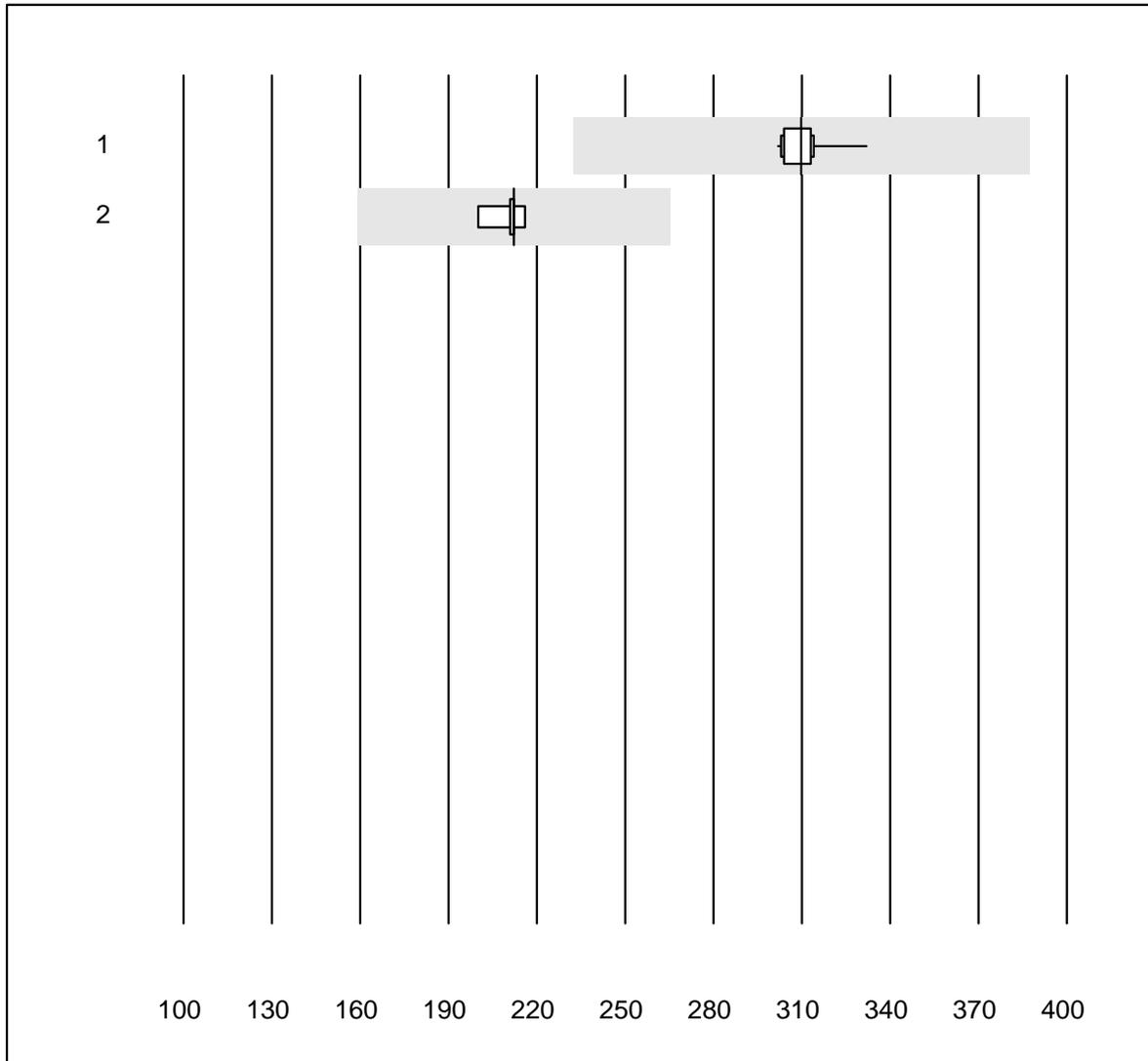
MQ tolerance : 25 %

Anti-Streptolysin-Antibodies (kIU/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	11	100.0	0.0	0.0	310	2.7	e
2	Other methods	5	100.0	0.0	0.0	212	2.9	e

Complement C3

1.80   1.88   1.96   2.04   2.12   2.20   2.28   2.36   2.44   2.52   2.60

QUALAB tolerance : 15 %   Complement C3 (g/l)
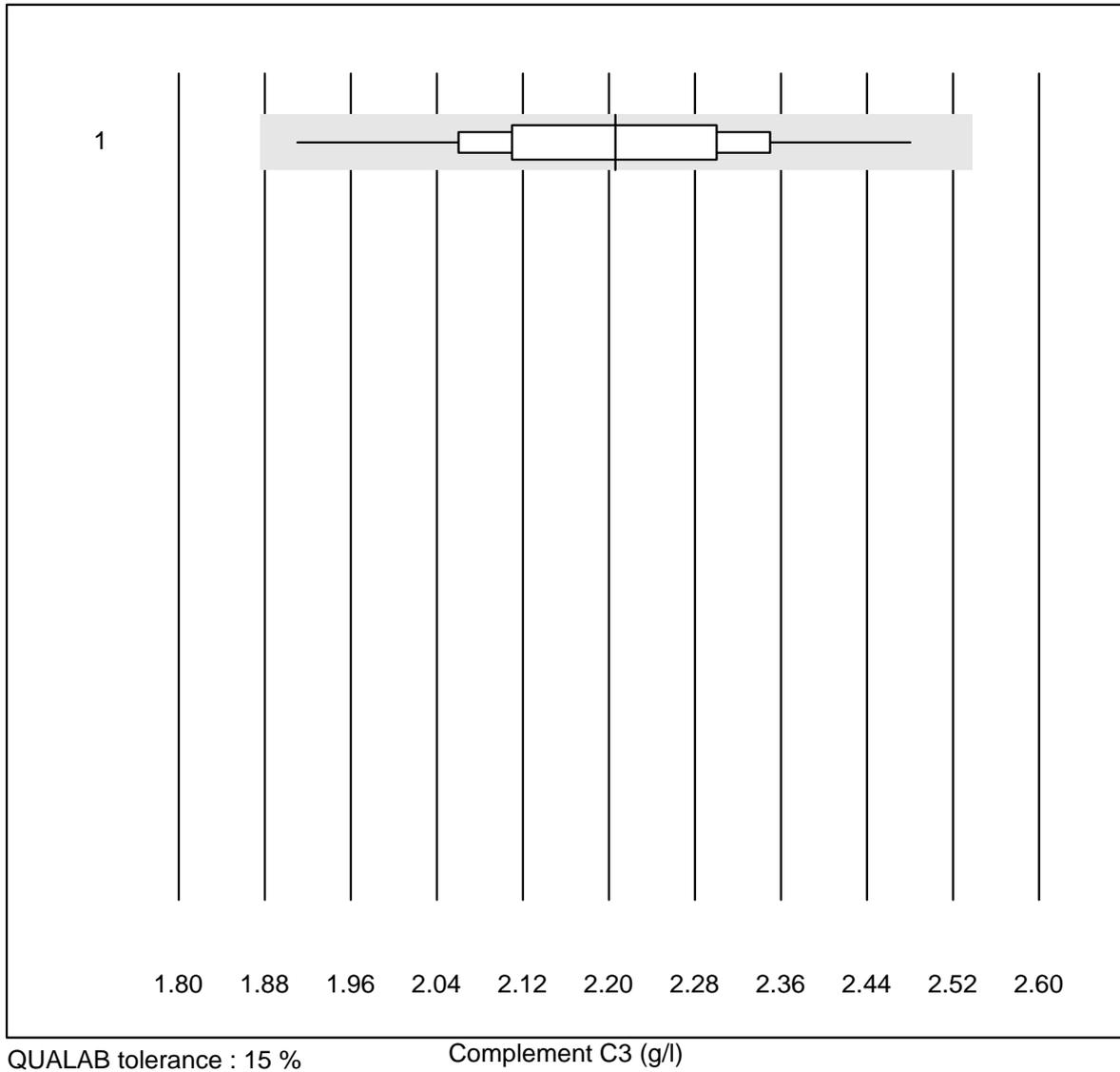
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	19	100.0	0.0	0.0	2.21	5.9	e

Complement C4

QUALAB tolerance : 15 %   Complement C4 (g/l)
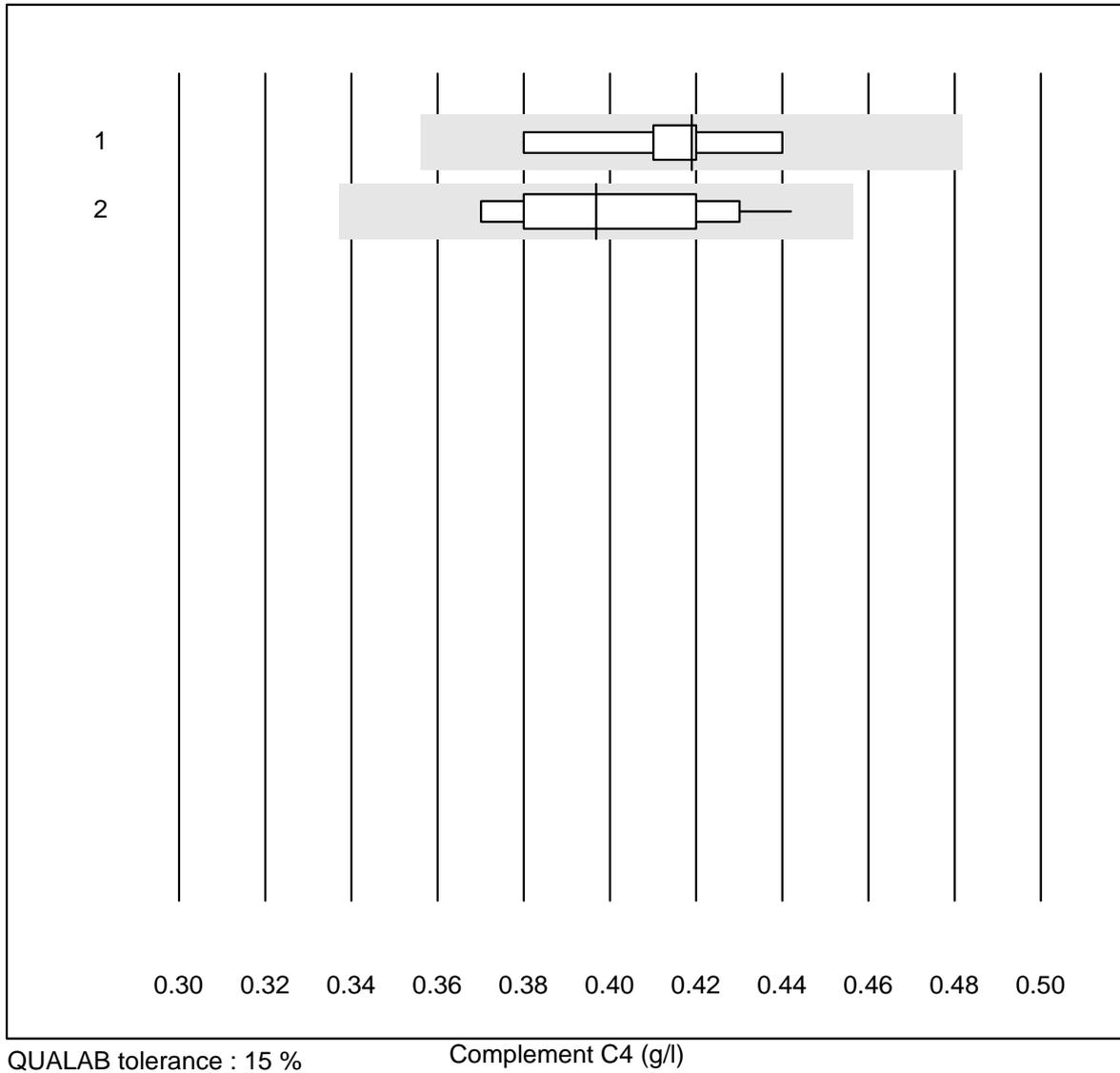
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Alinity	5	100.0	0.0	0.0	0.42	5.3	e*
2	Other methods	13	100.0	0.0	0.0	0.40	6.1	e

Haptoglobin

1

1.30   1.41   1.52   1.63   1.74   1.85   1.96   2.07   2.18   2.29   2.40
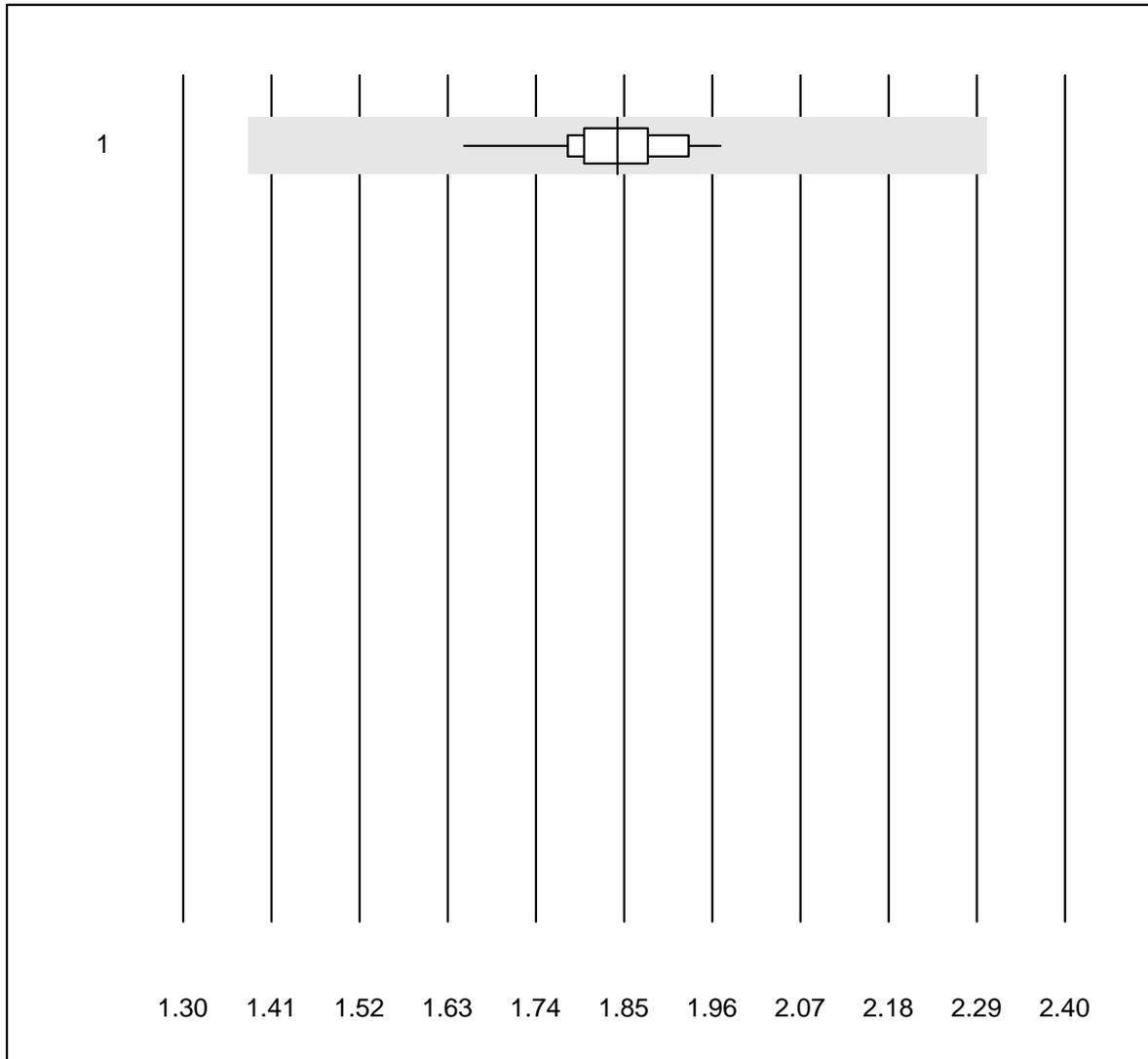
MQ tolerance : 25 %   Haptoglobin (g/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	24	100.0	0.0	0.0	1.84	3.8	e

Transferrin

MQ tolerance : 25 %   Transferrin (g/l)
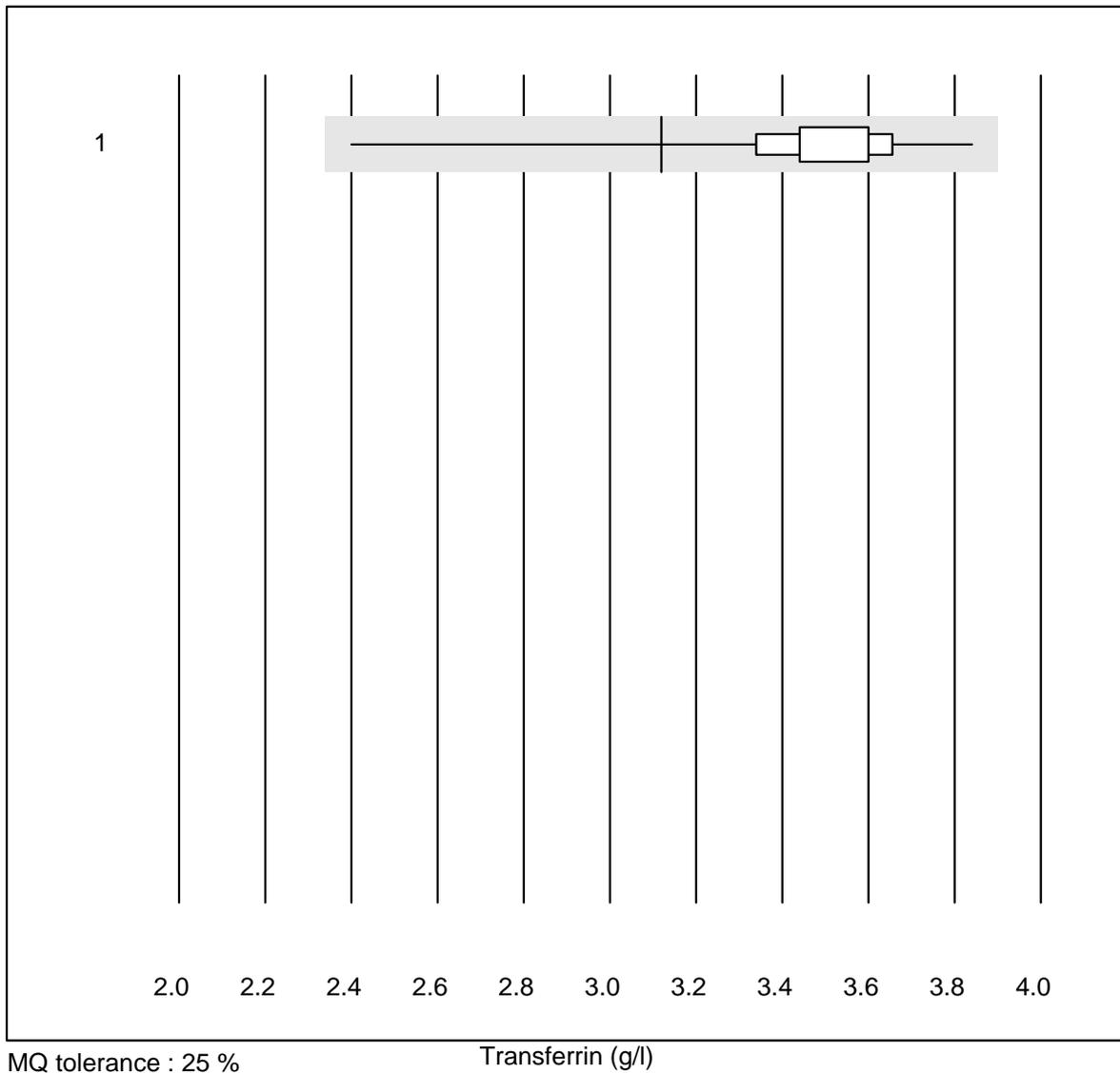
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	28	100.0	0.0	0.0	3.12	8.8	a

Beta-2 microglobuline

MQ tolerance : 25 %

Beta-2 microglobuline (mg/l)
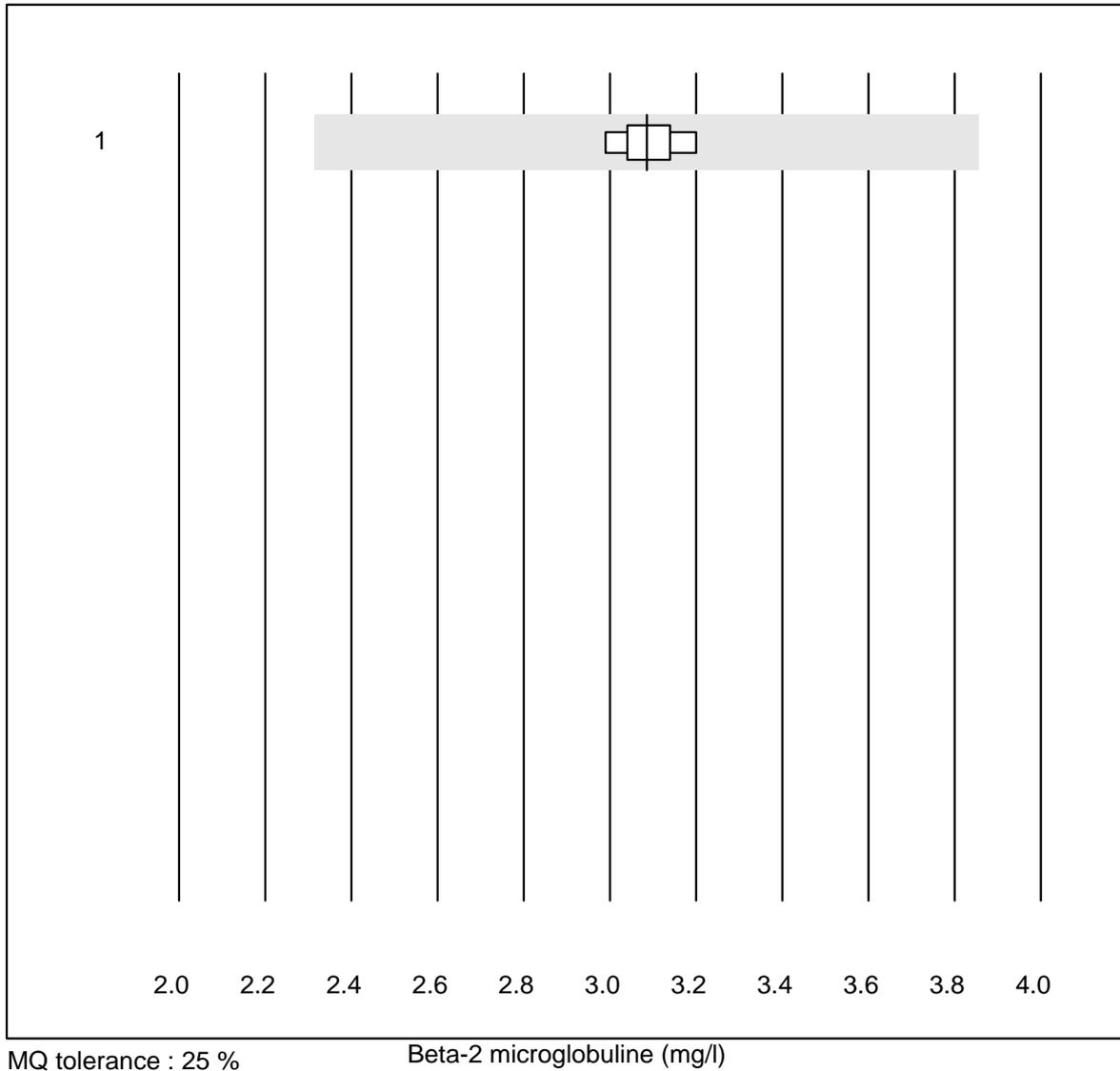
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	8	100.0	0.0	0.0	3.09	2.4	e

One result was submitted but not published because the method group was too small. (<4 results per group)

Rheumatoid factor

1

20 24 28 32 36 40 44 48 52 56 60

MQ tolerance : 25 %   Rheumatoid factor (U/ml)
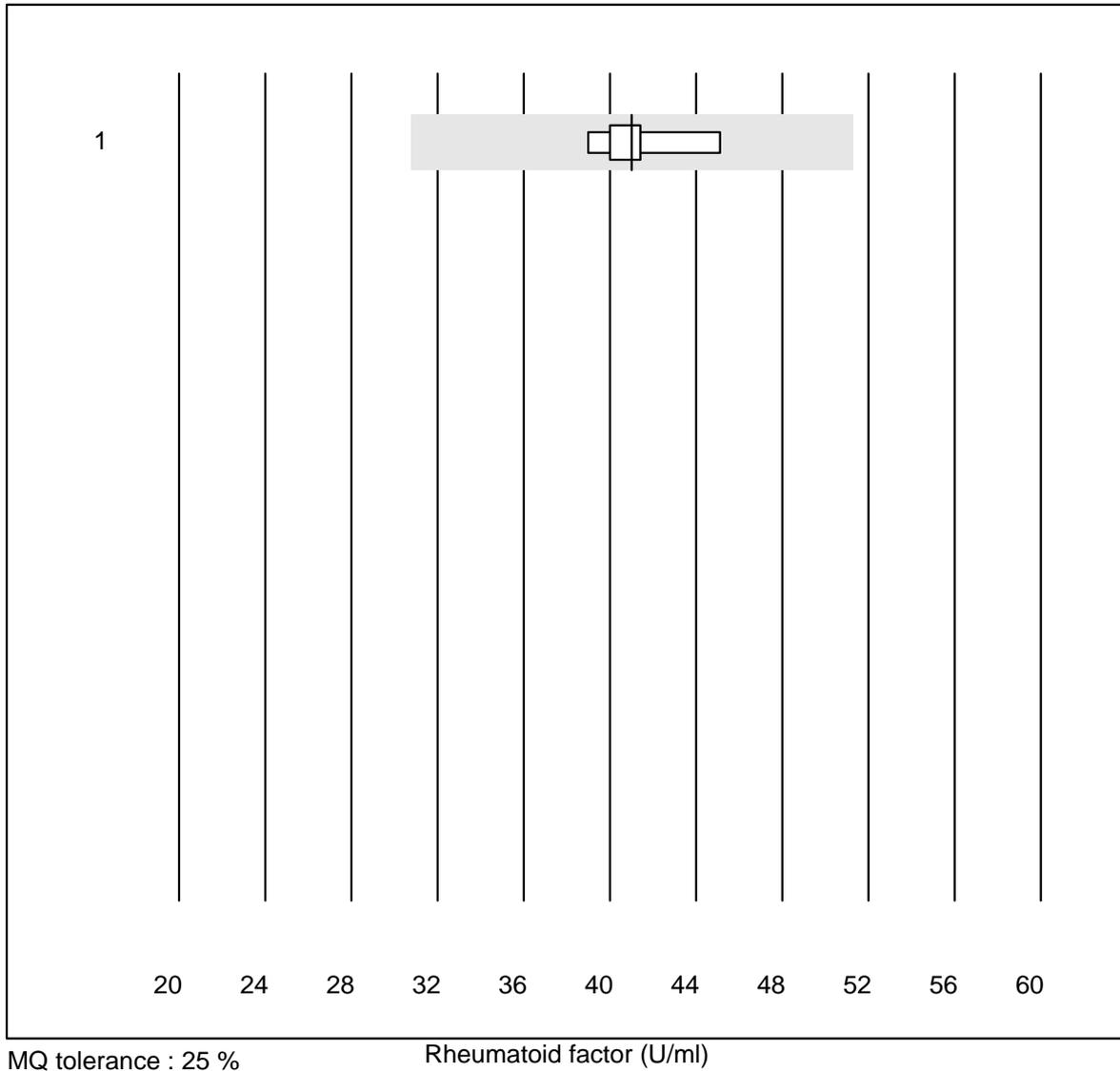
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Architect	5	100.0	0.0	0.0	41.0	5.6	e

6 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Ceruloplasmin

MQ tolerance : 25 %

Ceruloplasmin (mg/l)
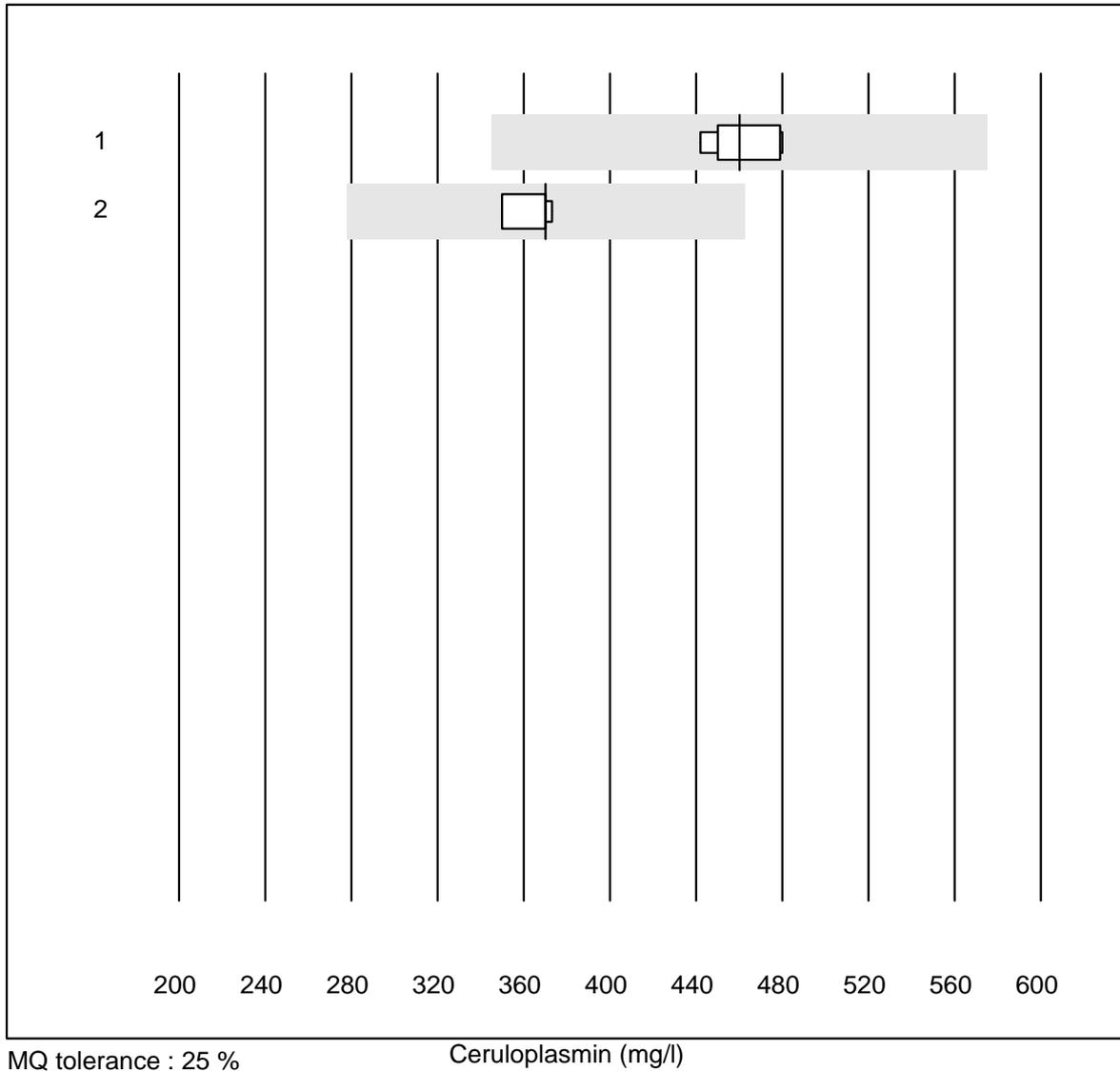
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Siemens	7	100.0	0.0	0.0	460.00	3.2	e
2	Other methods	4	100.0	0.0	0.0	370.00	2.9	e

Prealbumin

MQ tolerance : 25 %

Prealbumin (mg/l)
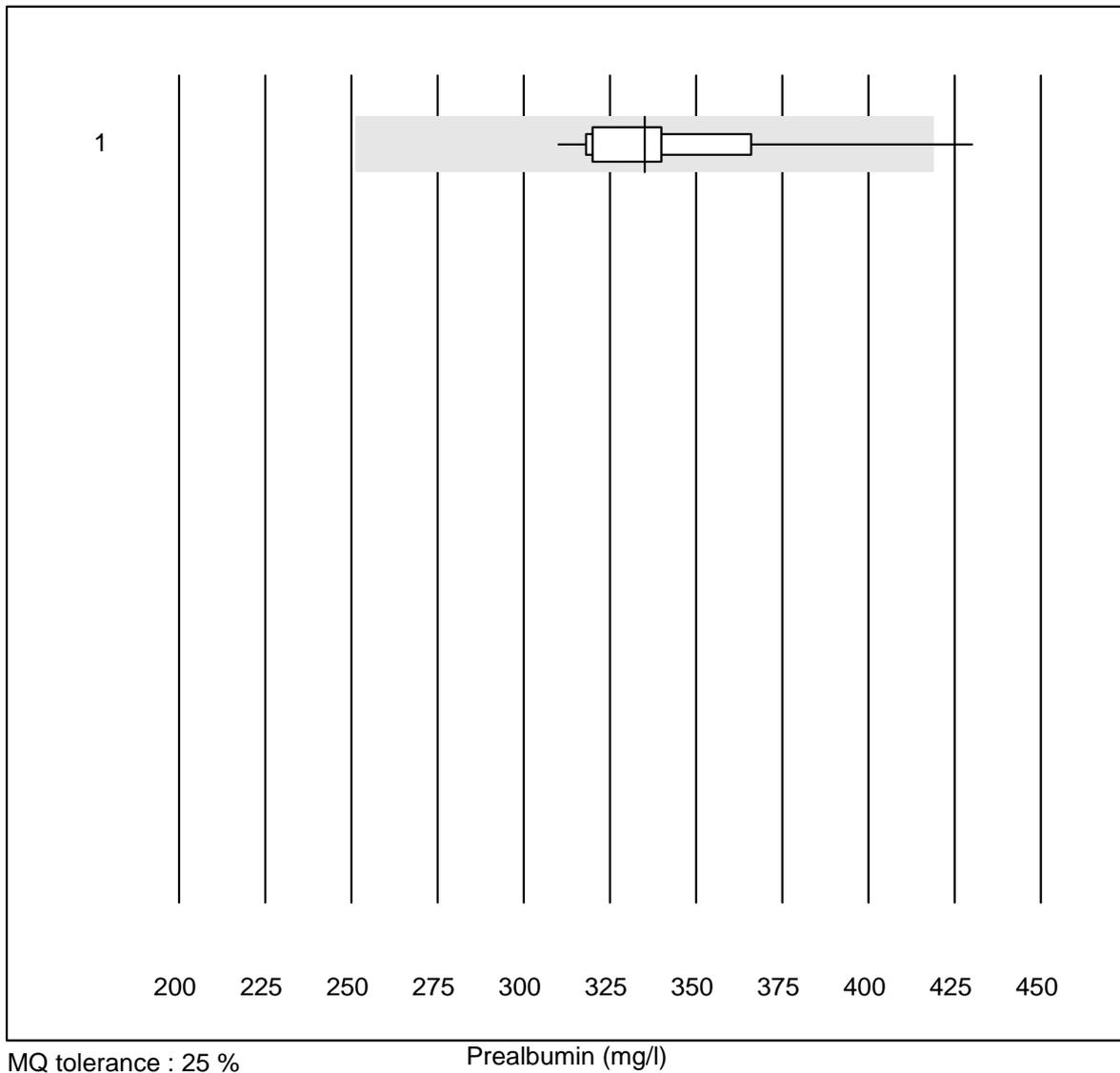
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	17	94.1	5.9	0.0	335.1	8.3	e

Soluble transferrin receptor
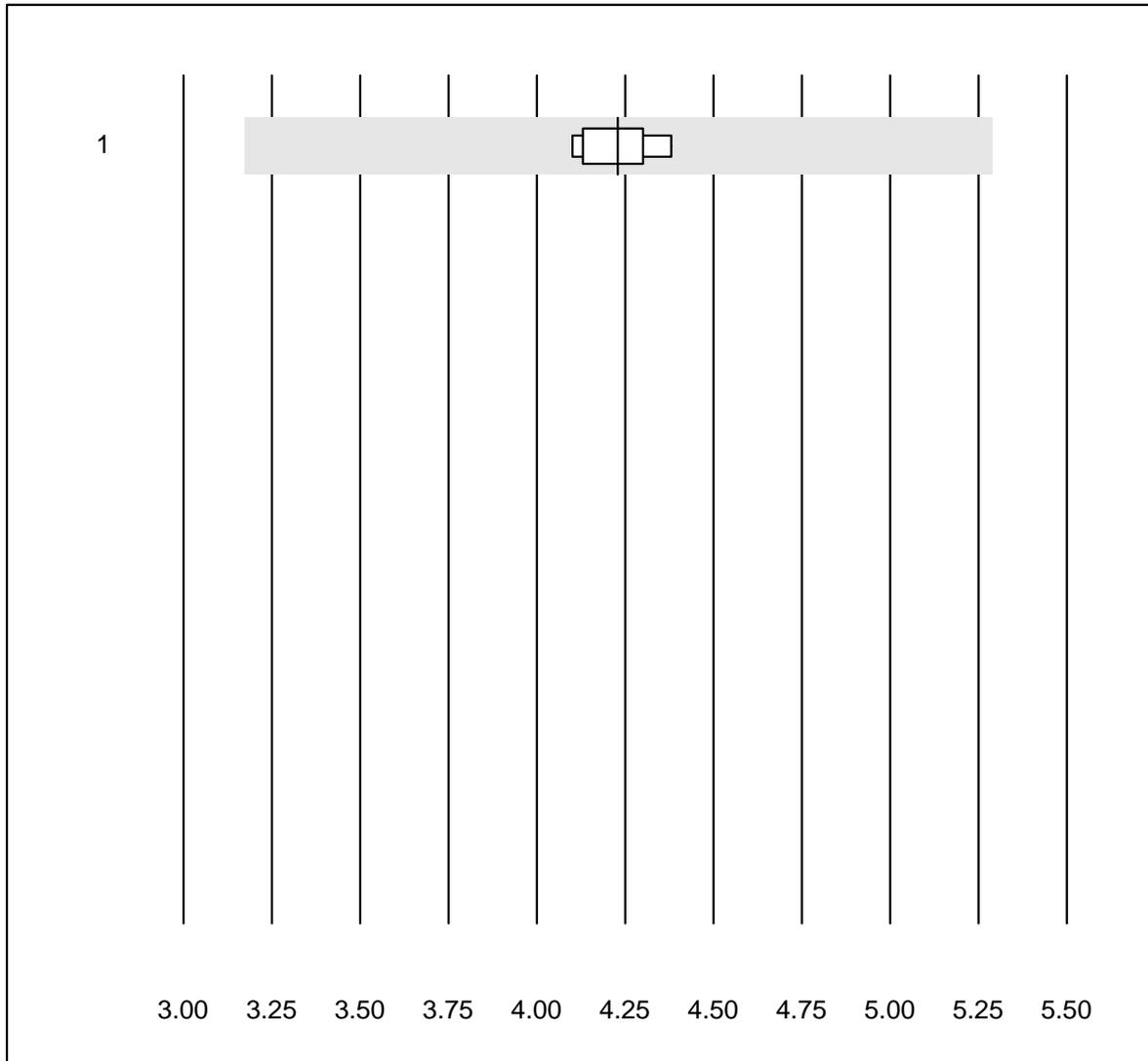
MQ tolerance : 25 %   Soluble transferrin receptor (mg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	7	85.7	0.0	14.3	4.2	2.5	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

free light chain kappa

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       1
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| | 17.0 | 18.1 | 19.2 | 20.3 | 21.4 | 22.5 | 23.6 | 24.7 | 25.8 | 26.9 | 28.0 |
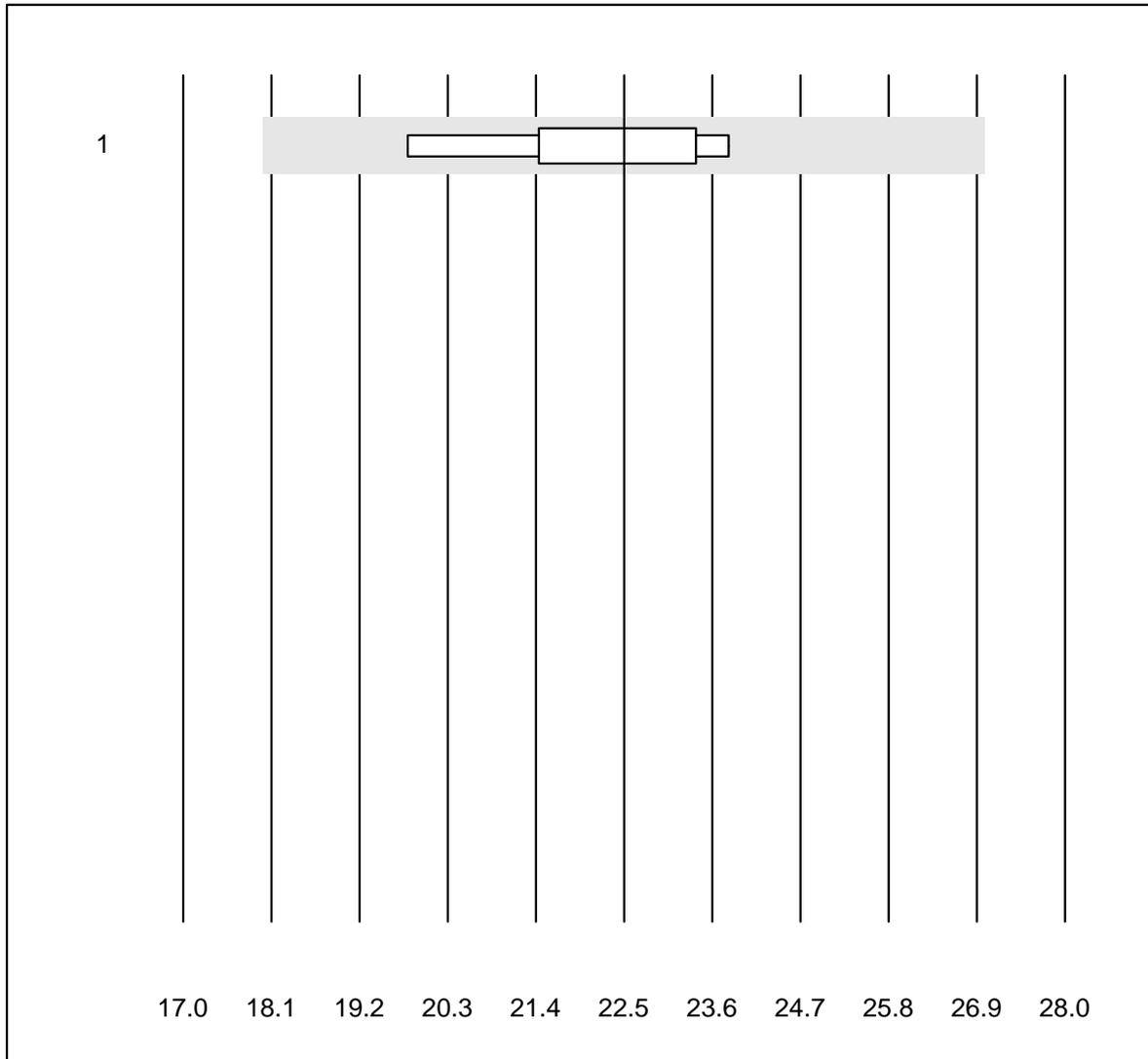
QUALAB tolerance : 20 %   free light chain kappa (mg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	10	80.0	0.0	20.0	23	6.0	e

free light chain lambda
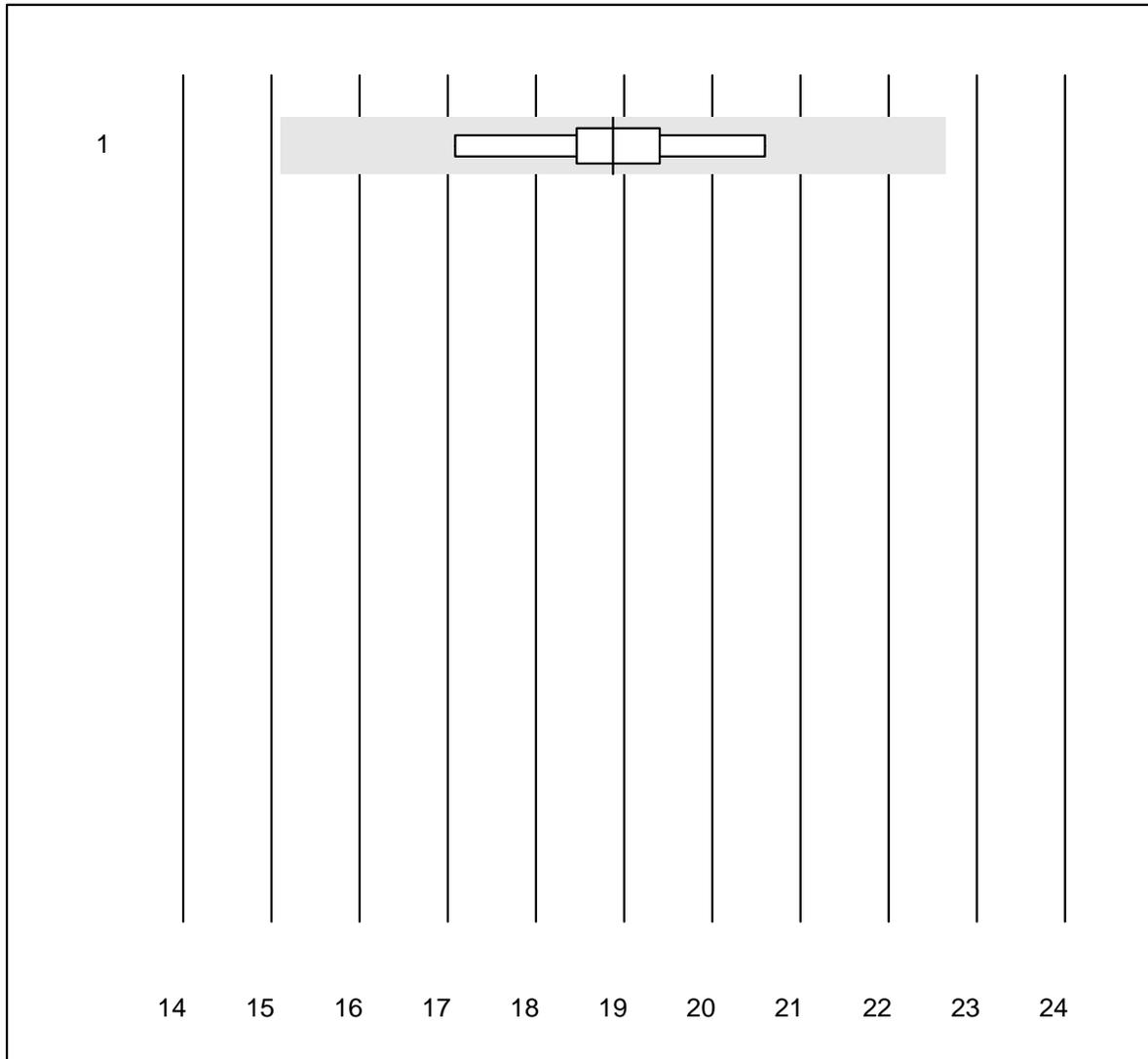
QUALAB tolerance : 20 %   free light chain lambda (mg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	10	80.0	0.0	20.0	19	5.4	e

IgE peanut qn
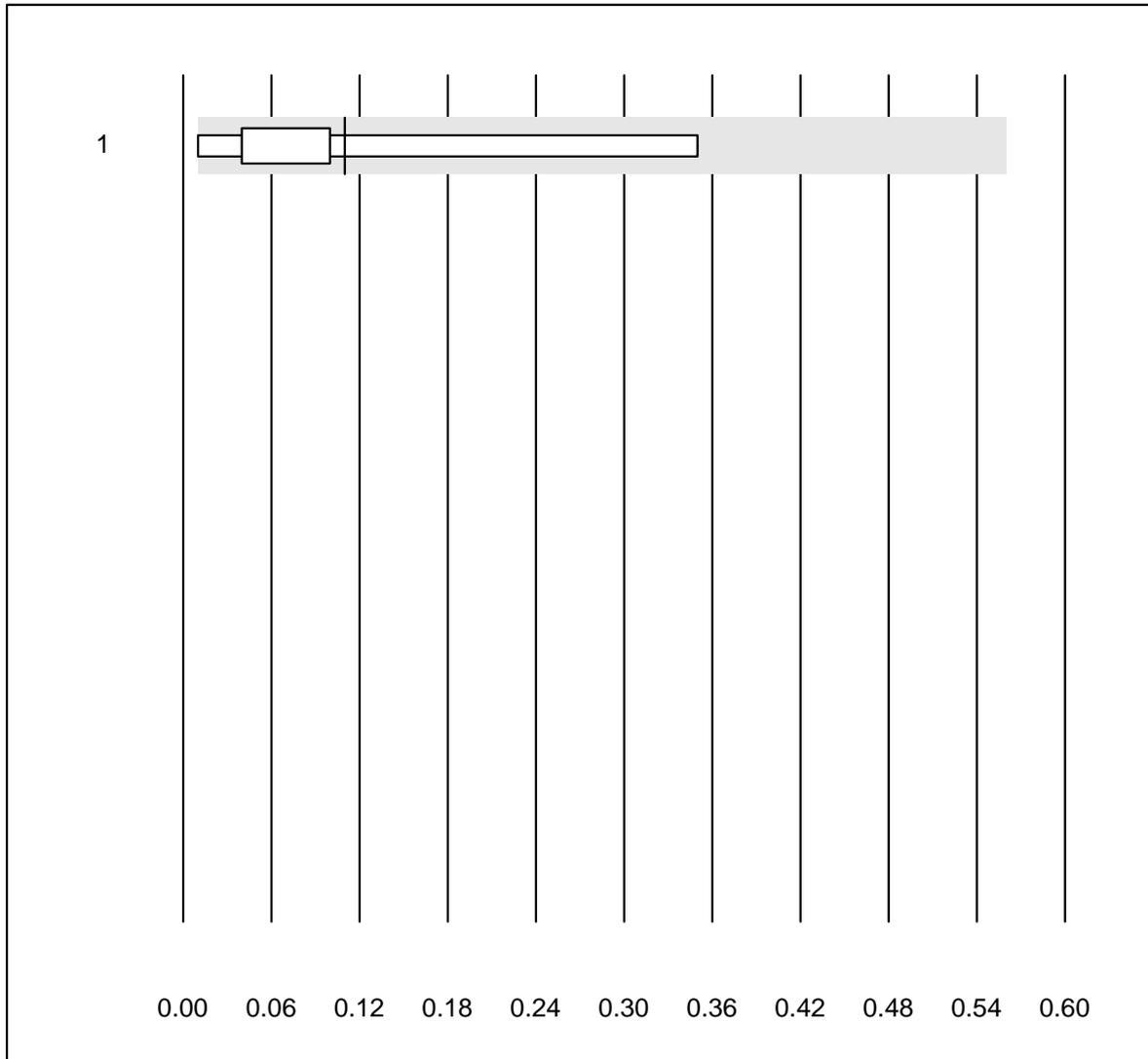
IgE peanut qn (kU/L)

MQ tolerance : 30 %
(< 1.50: +/- 0.45 kU/L)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	13	100.0	0.0	0.0	0.11	102.3	e*

IgE birch qn
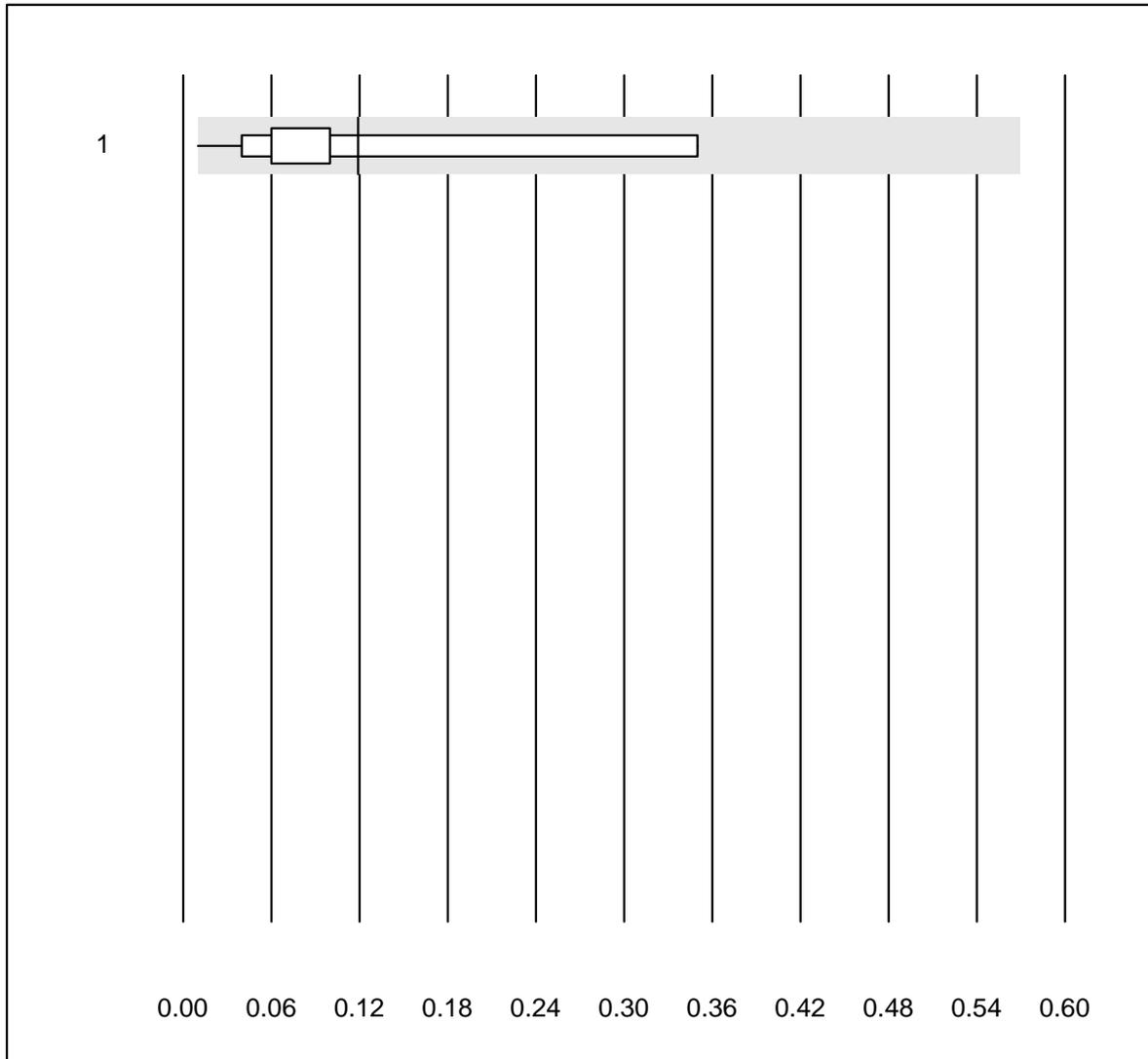
0.00   0.06   0.12   0.18   0.24   0.30   0.36   0.42   0.48   0.54   0.60

IgE birch qn (kU/L)

QUALAB tolerance : 30 %
(< 1.50: +/- 0.45 kU/L)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	12	100.0	0.0	0.0	0.12	93.7	e*

IgE cat qn
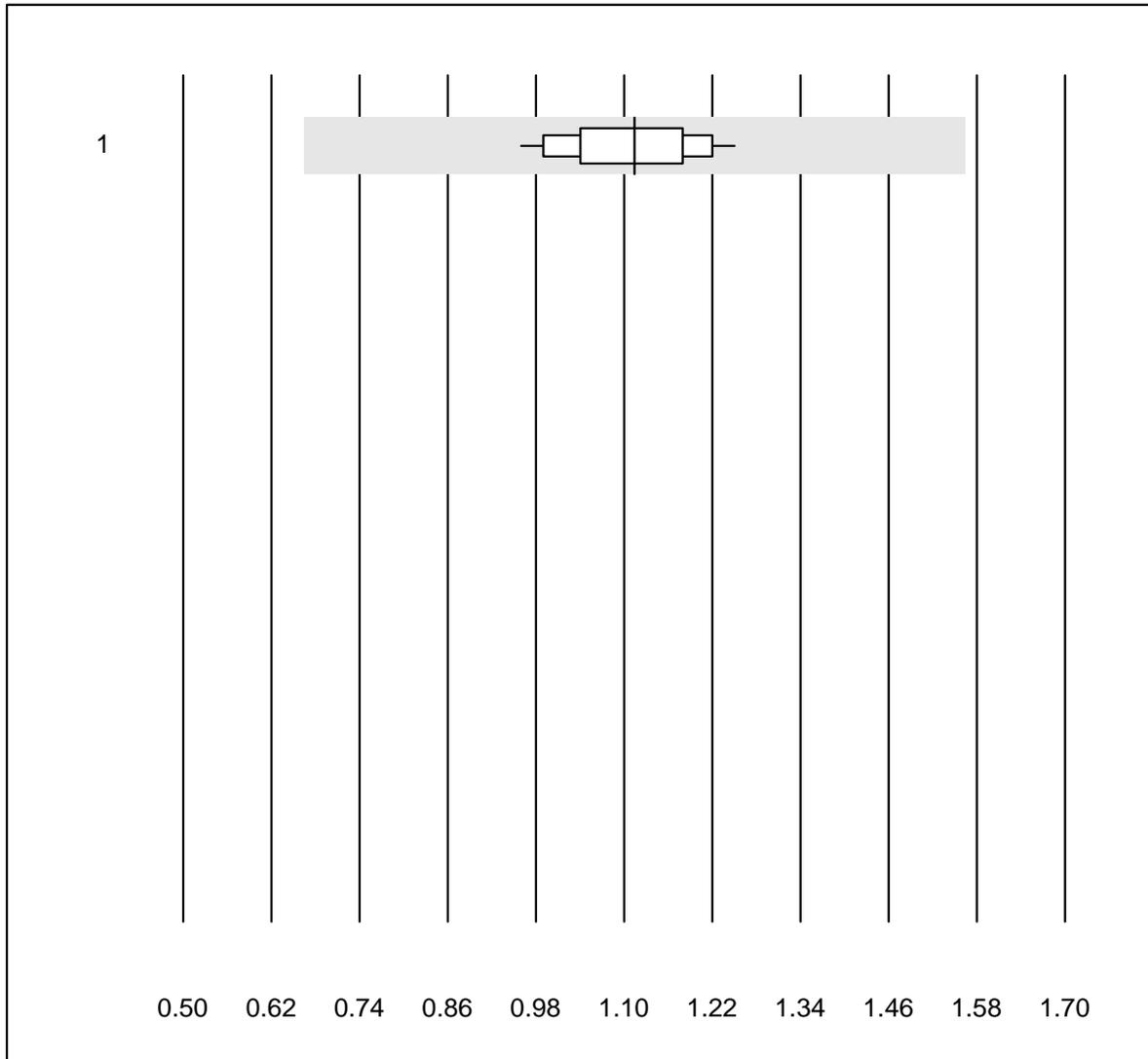
0.50   0.62   0.74   0.86   0.98   1.10   1.22   1.34   1.46   1.58   1.70

IgE cat qn (kU/L)

QUALAB tolerance : 30 %
(< 1.50: +/- 0.45 kU/L)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	12	100.0	0.0	0.0	1.11	8.0	e

IgE total


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             1
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190   211   232   253   274   295   316   337   358   379   400
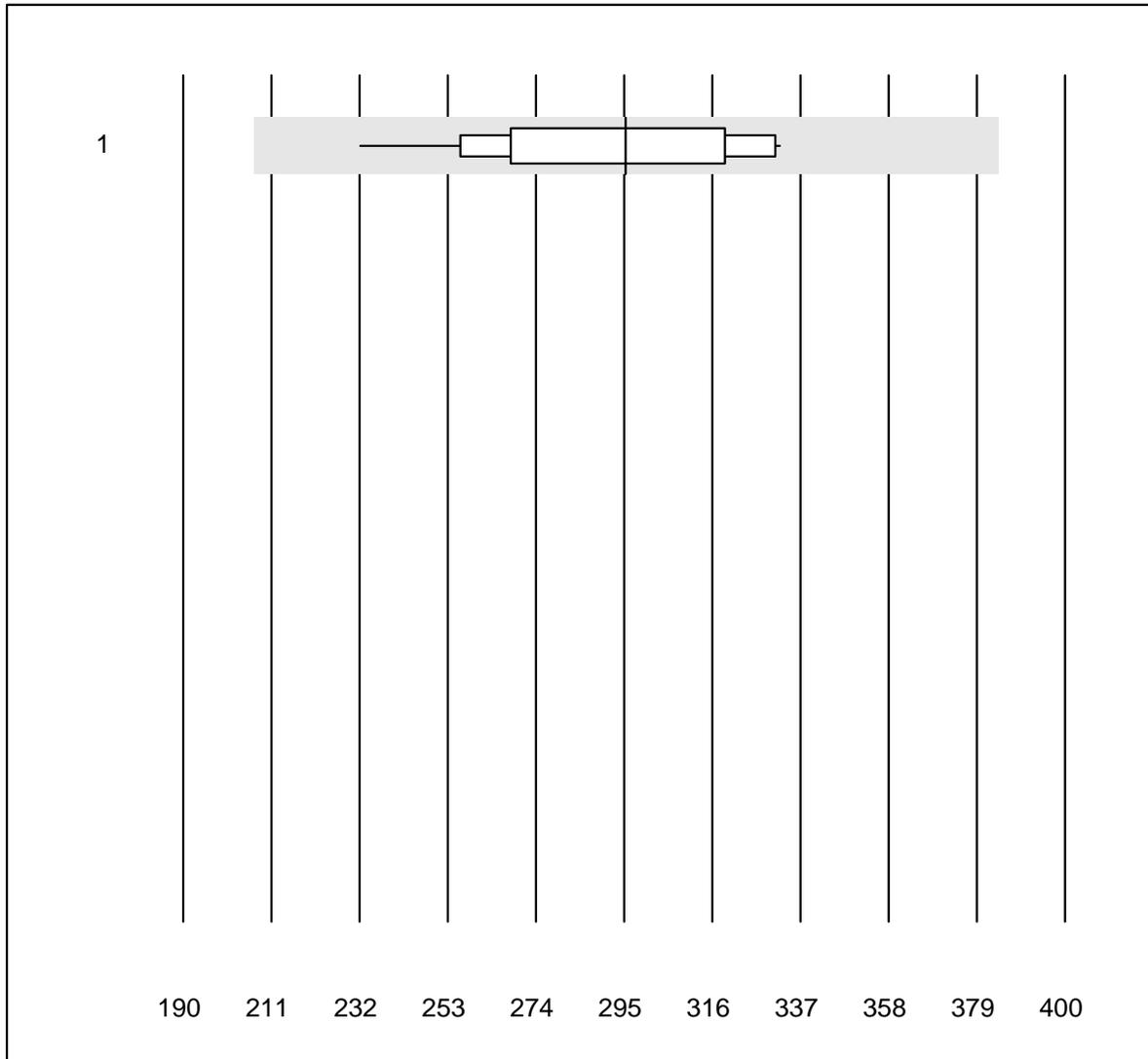
QUALAB tolerance : 30 %   IgE total (kU/L)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	12	100.0	0.0	0.0	295	11.0	e

IgE sx1 qn
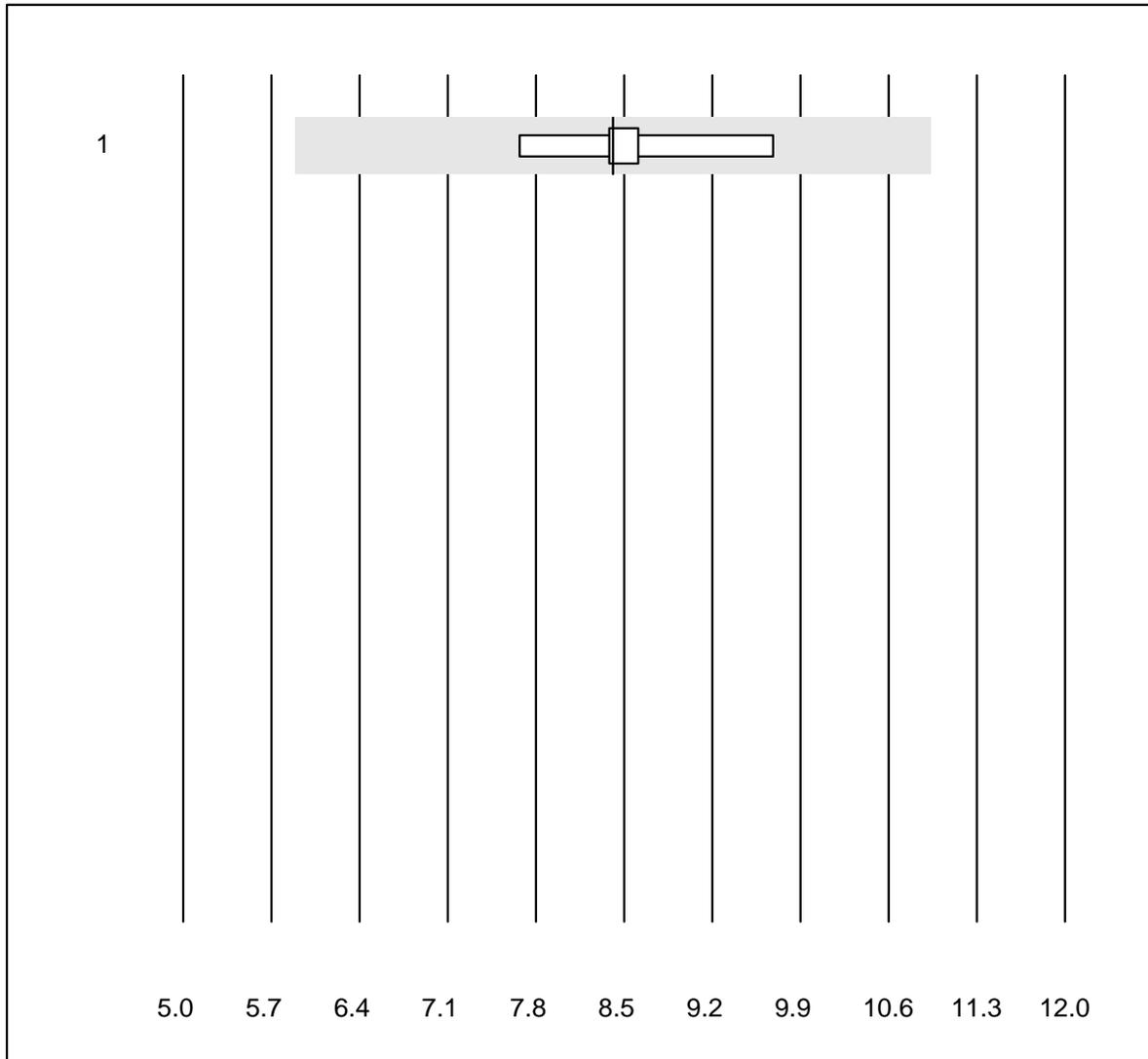
QUALAB tolerance : 30 %   IgE sx1 qn (kU/L)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	9	100.0	0.0	0.0	8.41	6.6	e

IgE fx5 qn
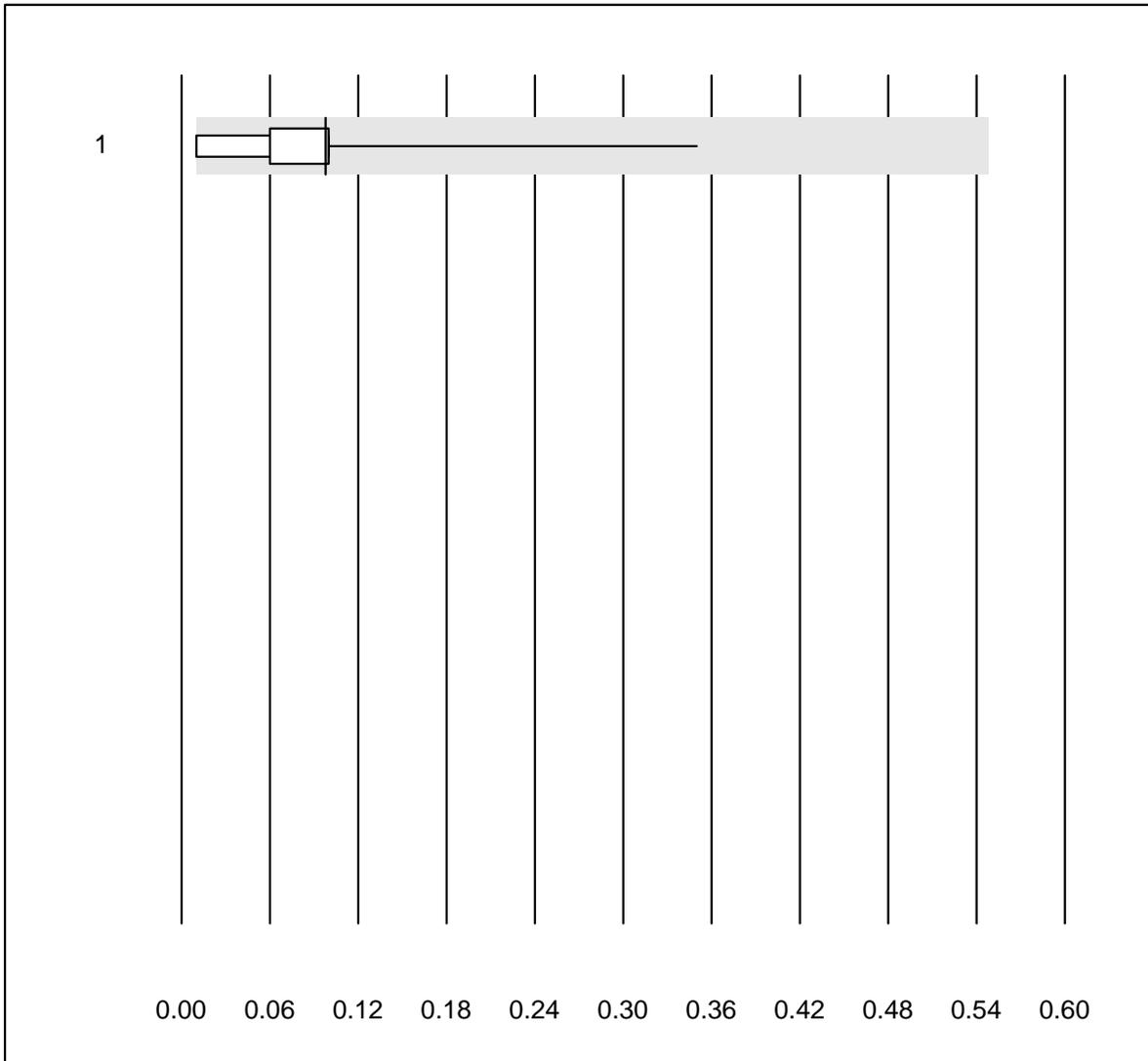
QUALAB tolerance : 30 %
(< 1.50: +/- 0.45 kU/L)

IgE fx5 qn (kU/L)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	10	100.0	0.0	0.0	0.10	95.9	e*

IgE rx1qn
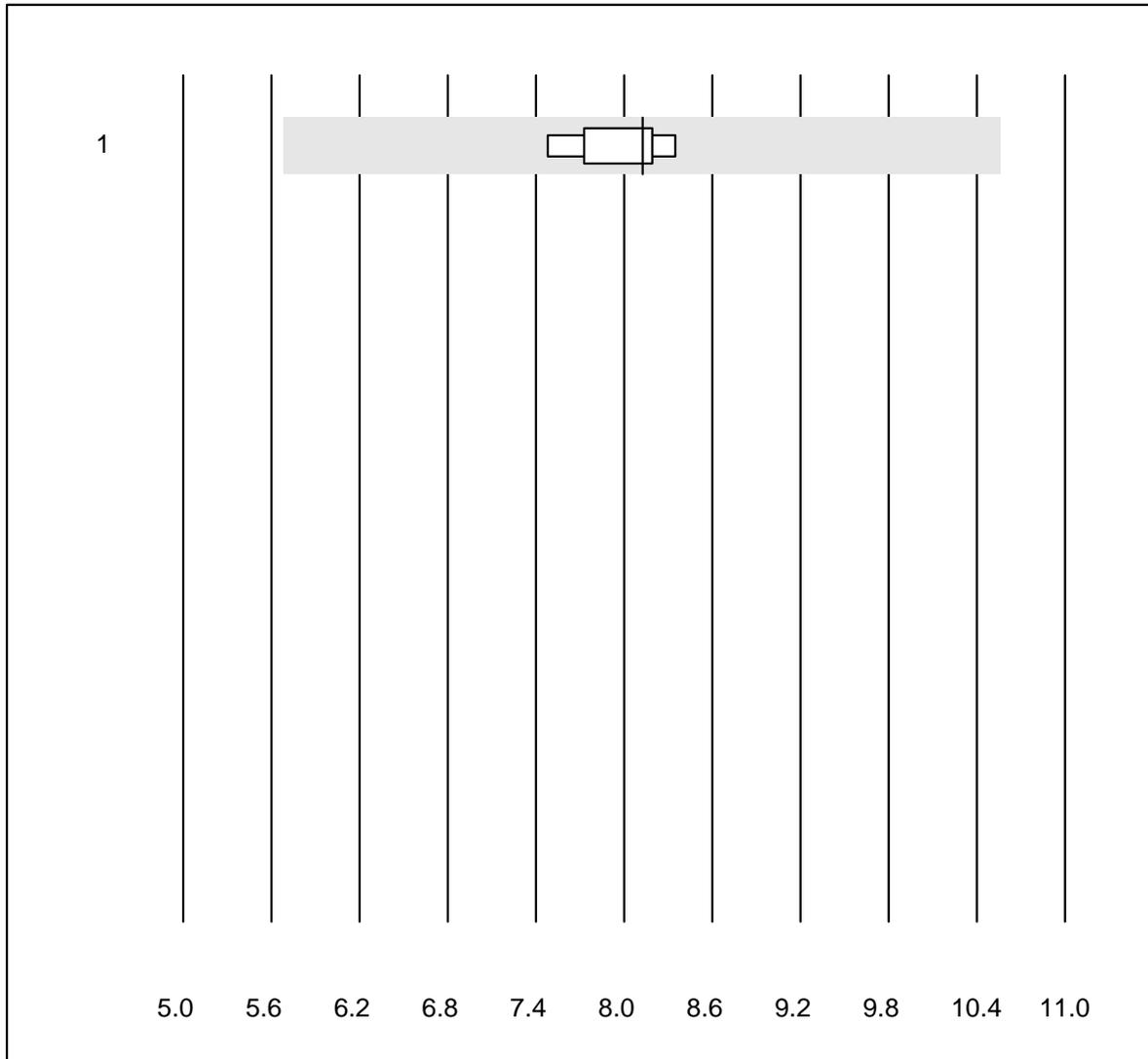
QUALAB tolerance : 30 %   IgE rx1qn (kU/L)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	8	100.0	0.0	0.0	8.13	3.6	e

IgE rx2 qn
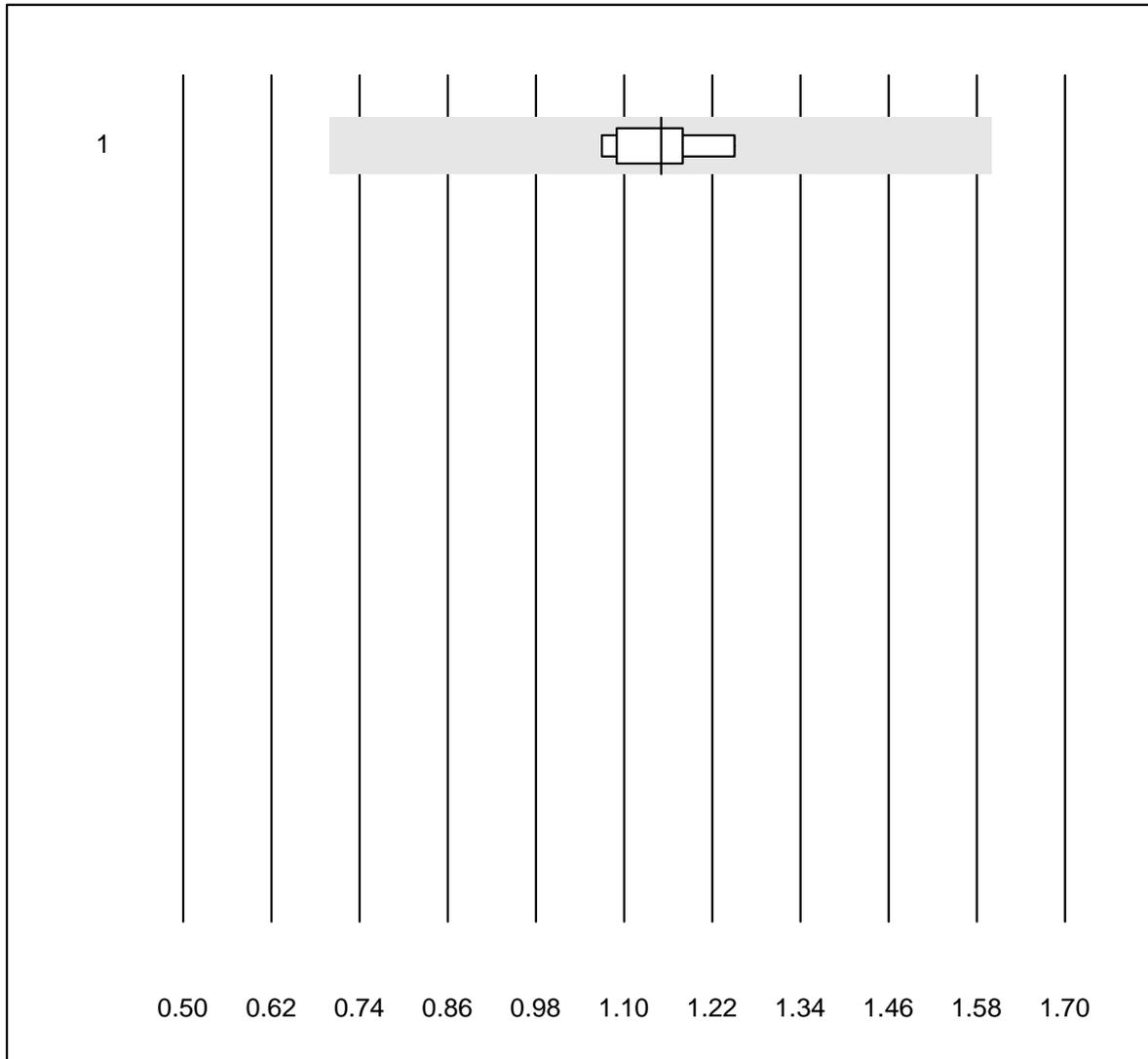
QUALAB tolerance : 30 %
(< 1.50: +/- 0.45 kU/L)

IgE rx2 qn (kU/L)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	8	100.0	0.0	0.0	1.15	5.1	e

IgE D. pteronyssinus qn

0.00	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48	0.54	0.60	
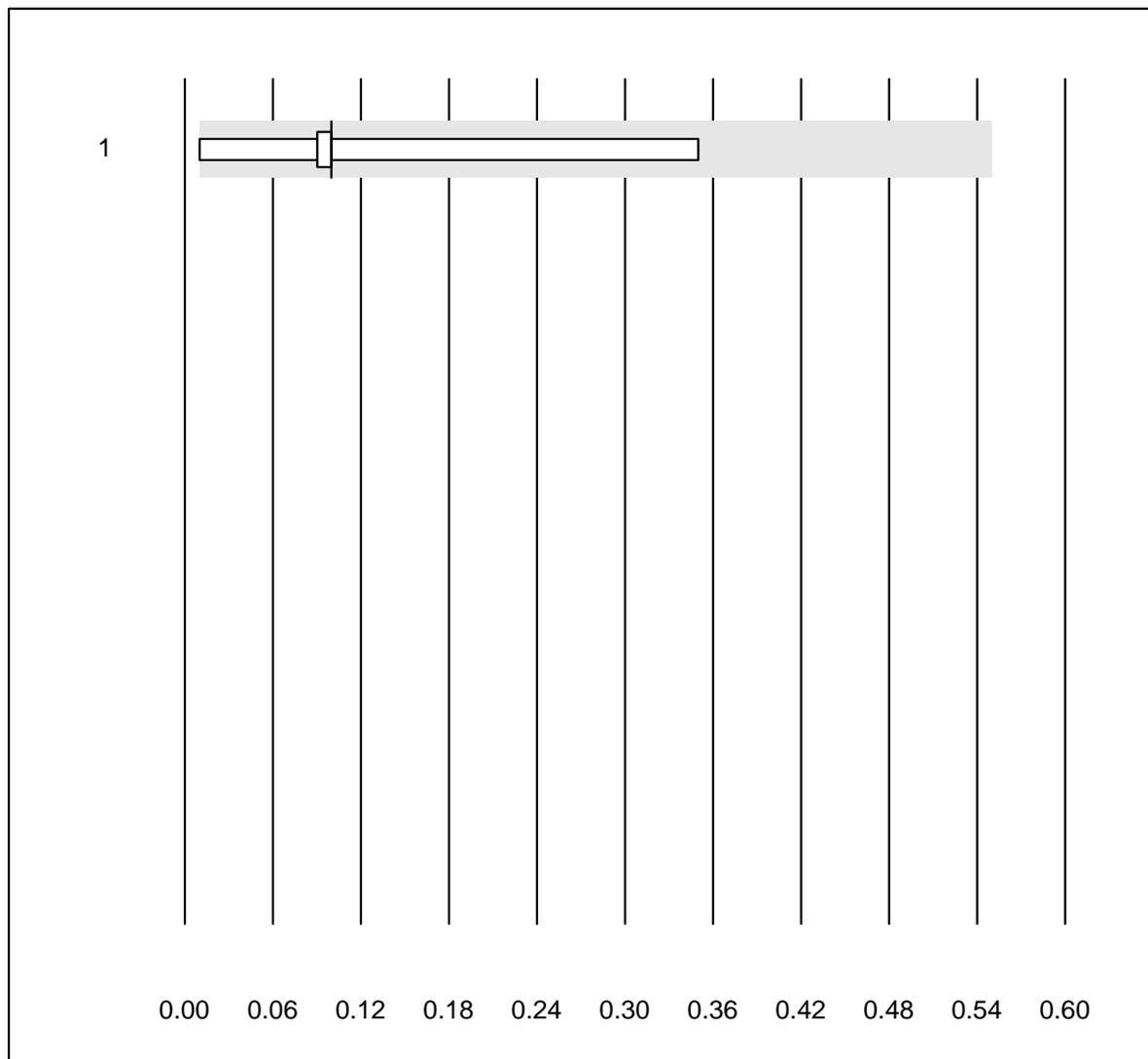
QUALAB tolerance : 30 %
(< 2: +/- 0 kU/L)

IgE D. pteronyssinus qn (kU/L)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	9	100.0	0.0	0.0	0	87.9	e*

CRP HS
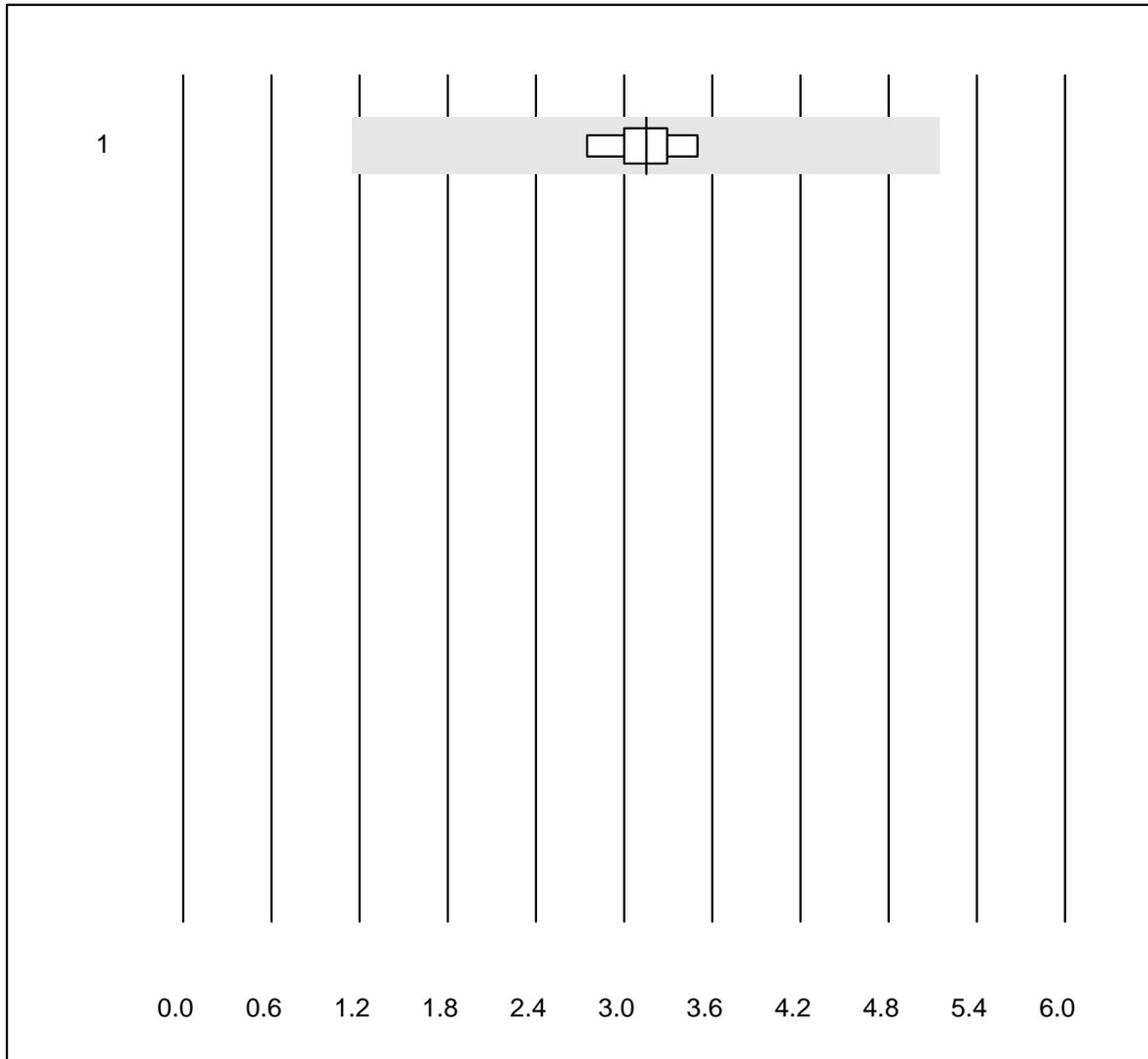
QUALAB tolerance : 21 %
(< 10.00: +/- 2.00 mg/l)

CRP HS (mg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Turbidimetry	8	100.0	0.0	0.0	3.15	7.7	e*

One result was submitted but not published because the method group was too small. (<4 results per group)

Lipoprotein (a)
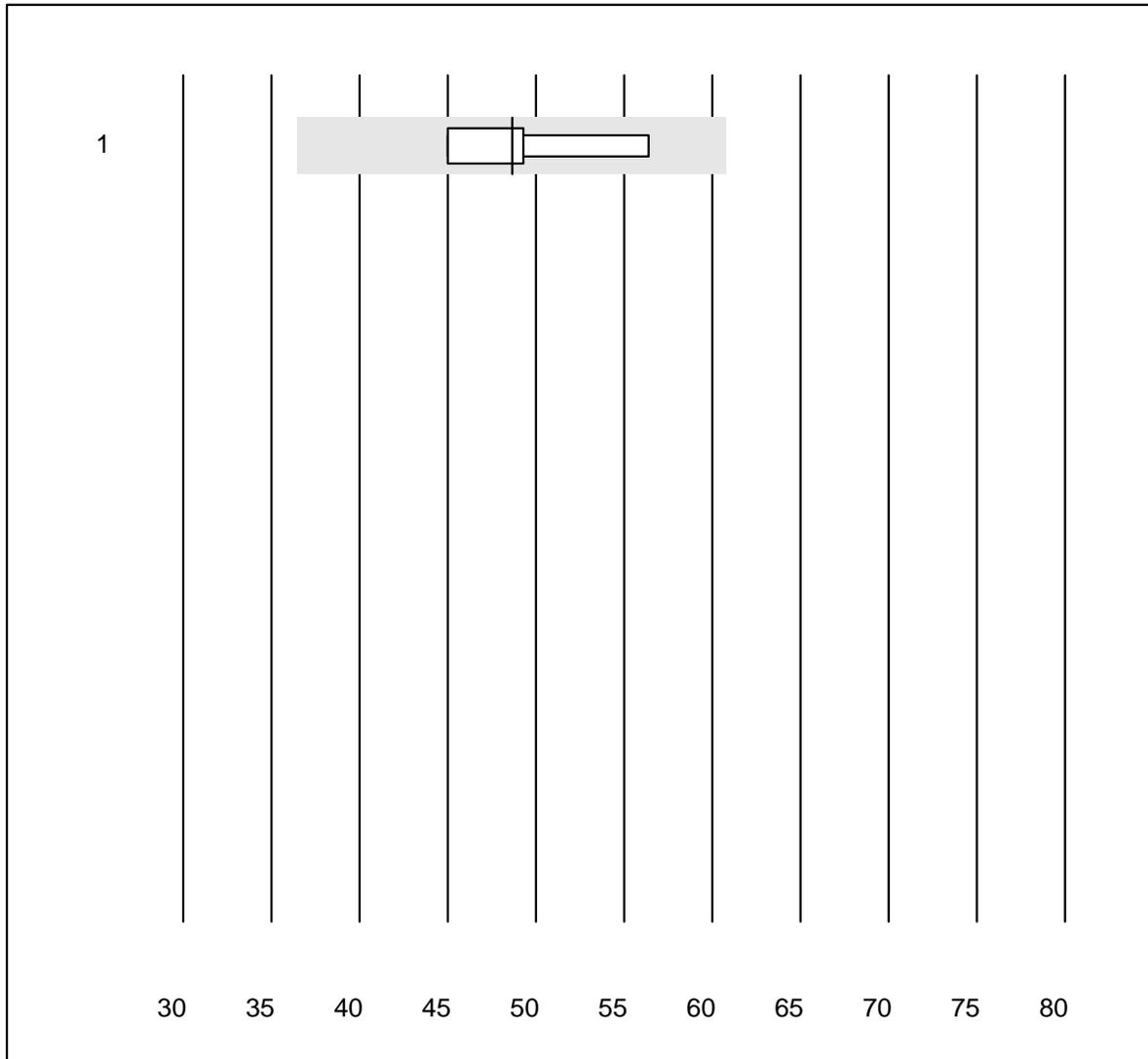
MQ tolerance : 25 %

Lipoprotein (a) (nmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	4	100.0	0.0	0.0	49	9.7	e*

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

CRP
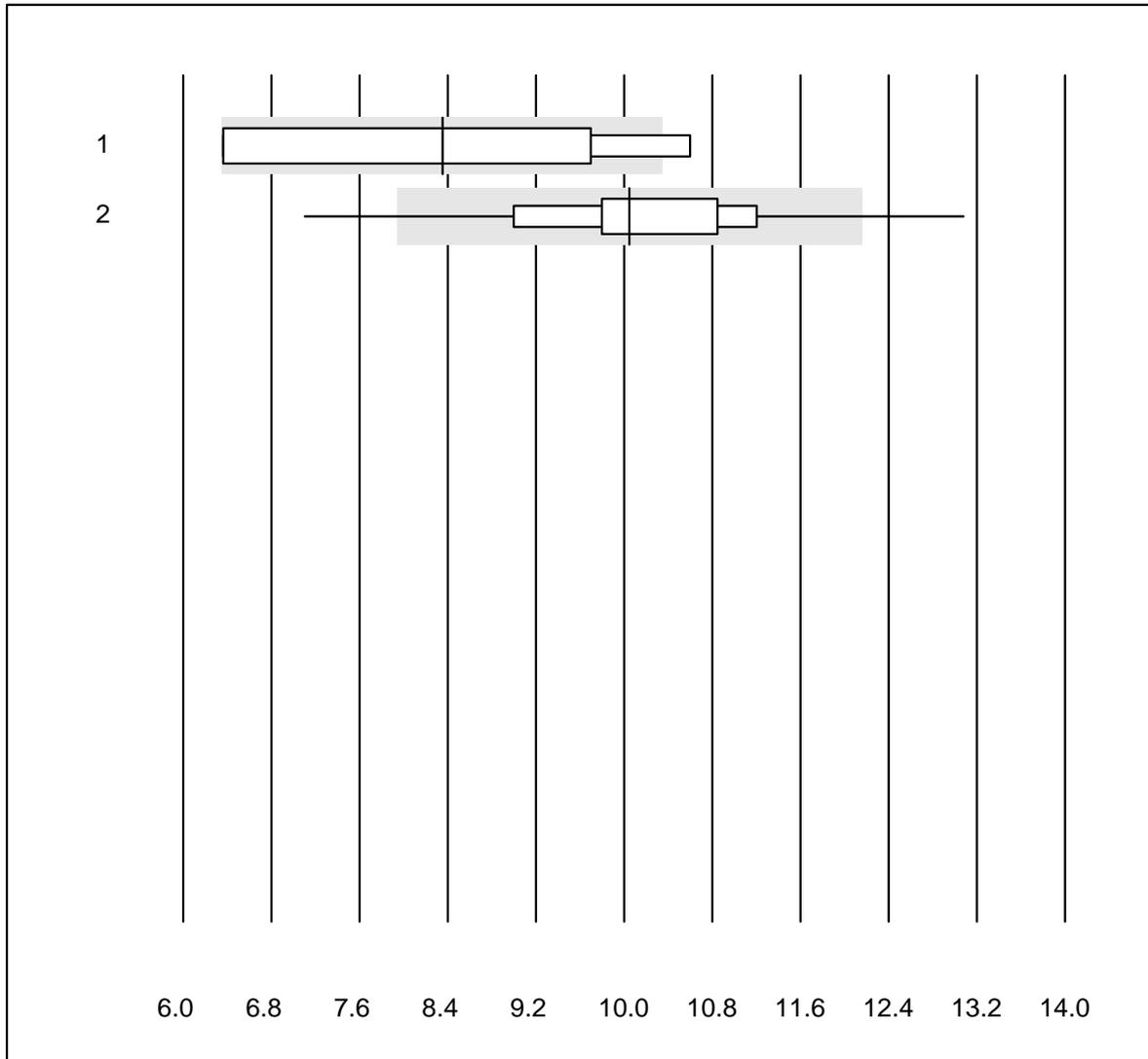
QUALAB tolerance : 21 %
(< 10.0: +/- 2.0 mg/l)

CRP (mg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Imuchem / Simplex	4	75.0	25.0	0.0	8.4	24.4	e*
2	AFIAS	133	93.2	4.5	2.3	10.1	9.4	e

Anti tTG IgA

| | 5.0 | 5.7 | 6.4 | 7.1 | 7.8 | 8.5 | 9.2 | 9.9 | 10.6 | 11.3 | 12.0 |

MQ tolerance : 30 %

Anti tTG IgA (U/ml)
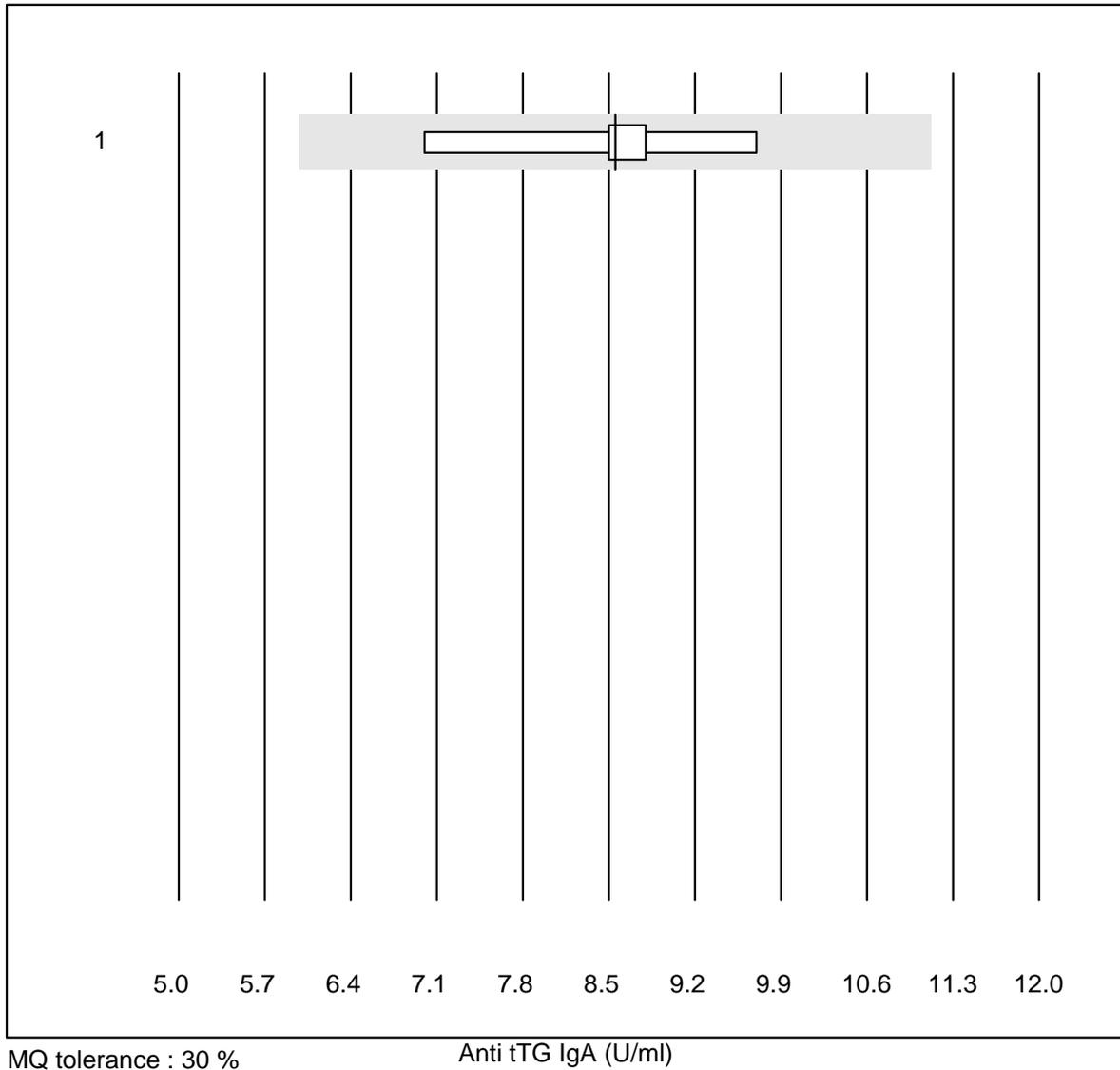
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Other methods	6	100.0	0.0	0.0	8.55	10.2	e*

One result was submitted but not published because the method group was too small. (<4 results per group)
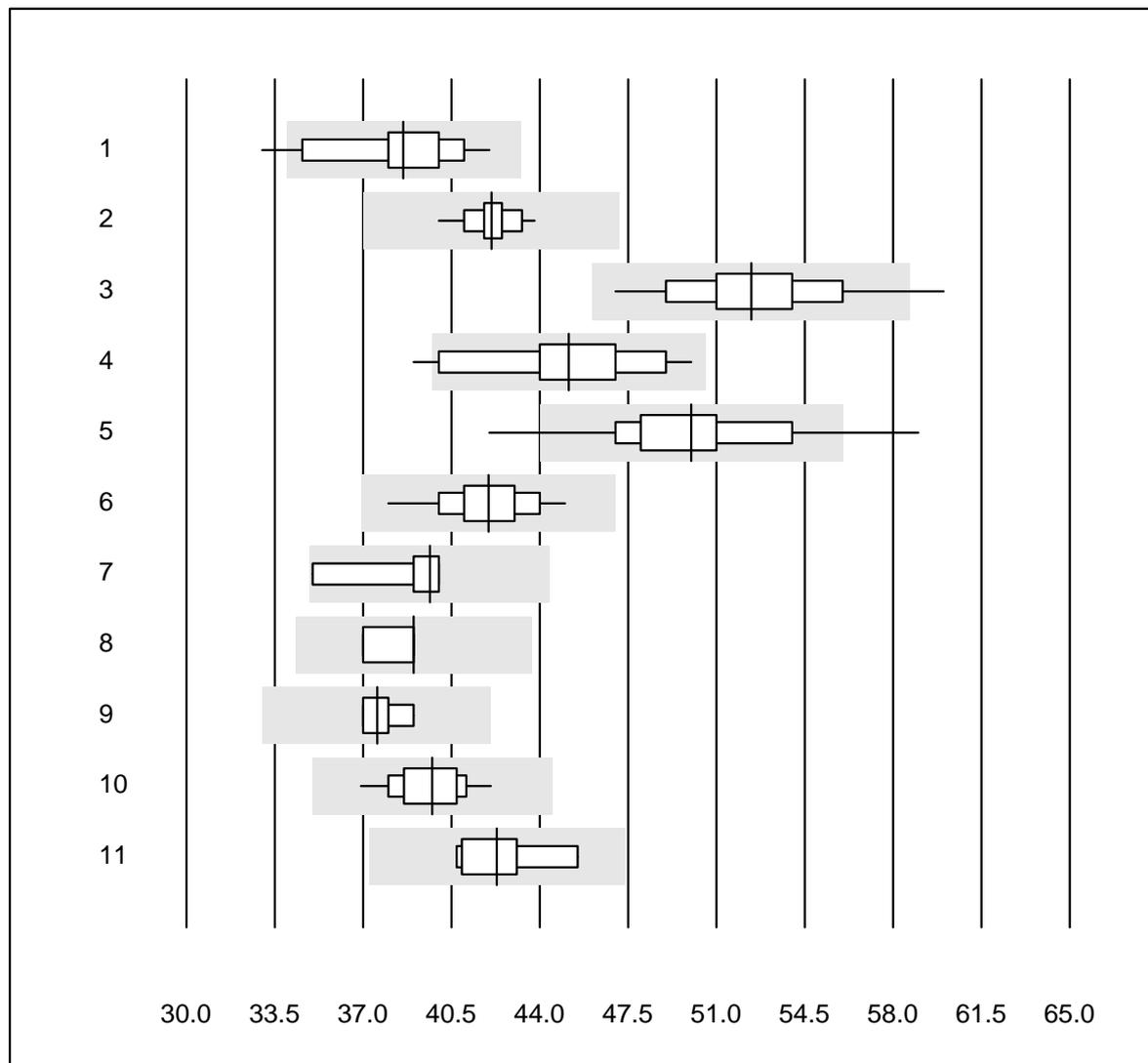
Albumine

QUALAB tolerance : 12 %

Albumine (g/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	15	93.3	6.7	0.0	39	6.5	e*
2	Cobas	25	100.0	0.0	0.0	42	2.1	e
3	Fuji Dri-Chem	247	98.8	0.4	0.8	52	4.3	e
4	Spotchem SP-4430	28	96.4	3.6	0.0	45	6.2	e
5	Spotchem D-Concept	188	94.1	4.8	1.1	50	5.5	e
6	Piccolo	65	98.5	0.0	1.5	42	4.0	e
7	Beckmann	6	100.0	0.0	0.0	40	5.0	e*
8	Skyla	4	100.0	0.0	0.0	39	2.6	e
9	Dimension	4	100.0	0.0	0.0	38	2.5	e
10	Selectra Pro	11	100.0	0.0	0.0	40	3.7	e
11	Autolyser/DiaSys	8	100.0	0.0	0.0	42	3.8	e

One result was submitted but not published because the method group was too small. (<4 results per group)

# Alkaline phosphatase
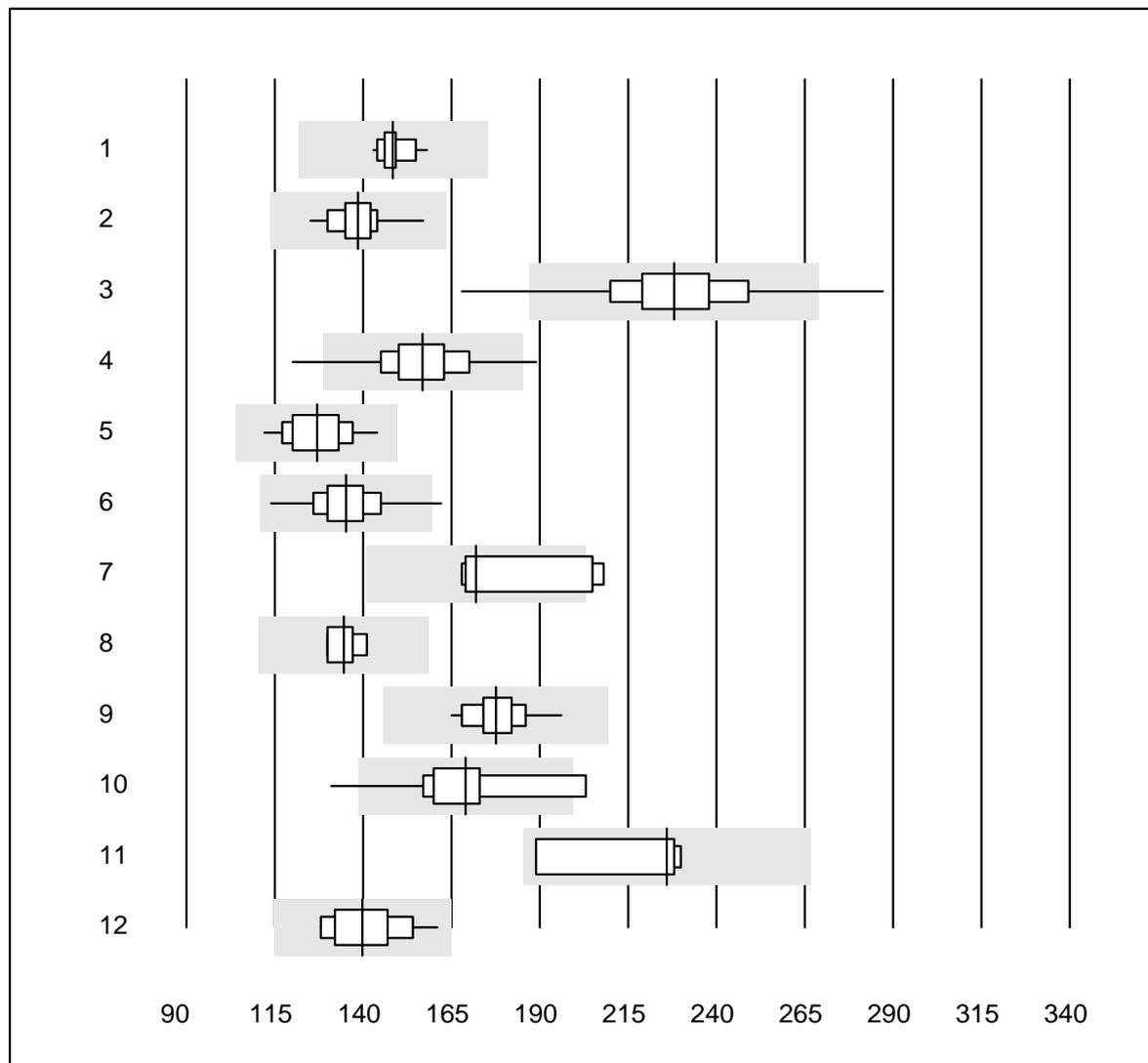
QUALAB tolerance : 18 %   Alkaline phosphatase (U/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	IFCC	13	100.0	0.0	0.0	148	3.1	e
2	Cobas	26	100.0	0.0	0.0	139	4.7	e
3	Reflotron	223	94.6	2.7	2.7	228	7.5	e
4	Fuji Dri-Chem	948	98.6	0.6	0.8	157	6.4	e
5	Spotchem SP-4430	62	100.0	0.0	0.0	127	6.3	e
6	Spotchem D-Concept	418	99.1	0.2	0.7	135	5.6	e
7	Beckman	7	71.4	28.6	0.0	172	9.6	e*
8	Dimension	4	100.0	0.0	0.0	135	3.7	e
9	Piccolo	54	100.0	0.0	0.0	178	3.8	e
10	Selectra Pro	15	80.0	20.0	0.0	169	10.4	e*
11	Skyla	5	80.0	0.0	20.0	226	9.0	e*
12	Autolyser/DiaSys	20	100.0	0.0	0.0	140	6.9	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Amylase
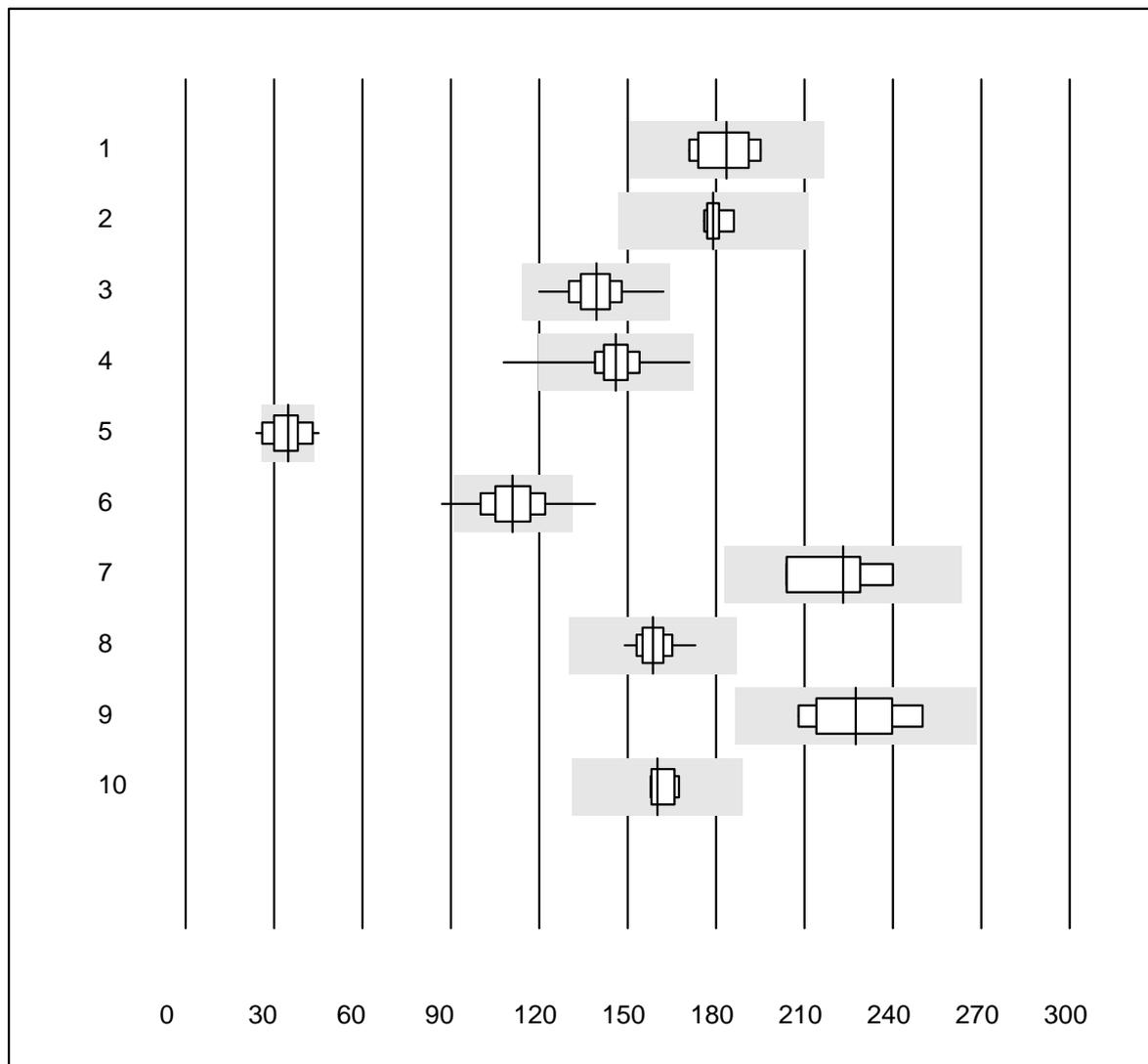
QUALAB tolerance : 18 %
(< 50: +/- 9 U/l)

Amylase (U/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	IFCC	8	100.0	0.0	0.0	184	4.8	e
2	Cobas	9	100.0	0.0	0.0	179	1.8	e
3	Reflotron	61	100.0	0.0	0.0	139	5.4	e
4	Fuji Dri-Chem	691	99.2	0.4	0.4	146	4.5	e
5	Spotchem SP-4430	42	52.4	7.1	40.5	35	17.0	e*
6	Spotchem D-Concept	317	98.5	0.9	0.6	111	7.6	e
7	Architect	4	100.0	0.0	0.0	223	7.0	e*
8	Piccolo	59	100.0	0.0	0.0	159	3.0	e
9	Selectra Pro	8	87.5	0.0	12.5	228	6.4	e*
10	Autolyser/DiaSys	7	100.0	0.0	0.0	160	2.5	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Pancreatic amylase
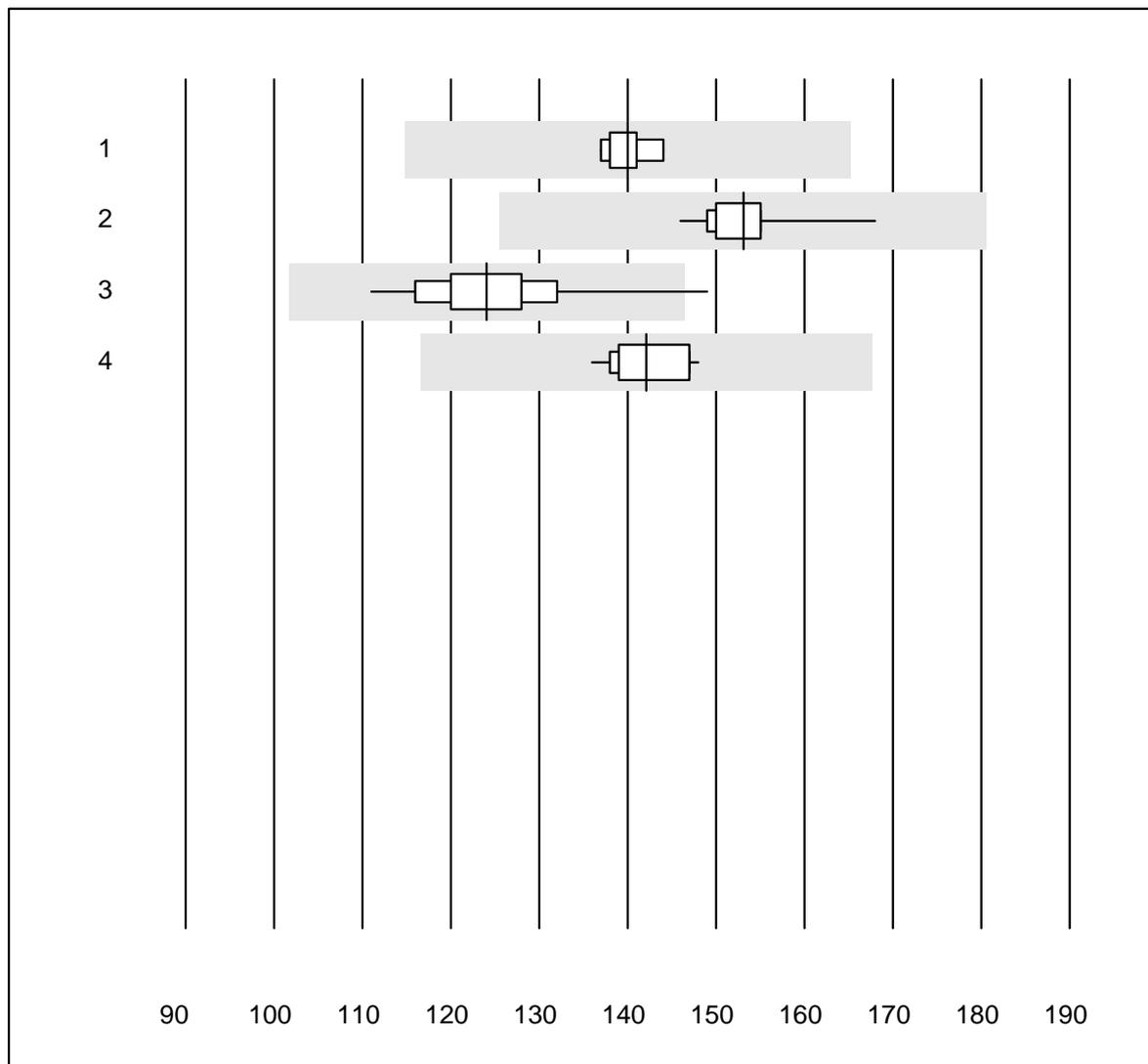
QUALAB tolerance : 18 %   Pancreatic amylase (U/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	IFCC	11	100.0	0.0	0.0	140	1.7	e
2	Cobas	12	100.0	0.0	0.0	153	3.5	e
3	Reflotron	166	98.2	1.2	0.6	124	5.3	e
4	Autolyser/DiaSys	11	100.0	0.0	0.0	142	2.8	e

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)
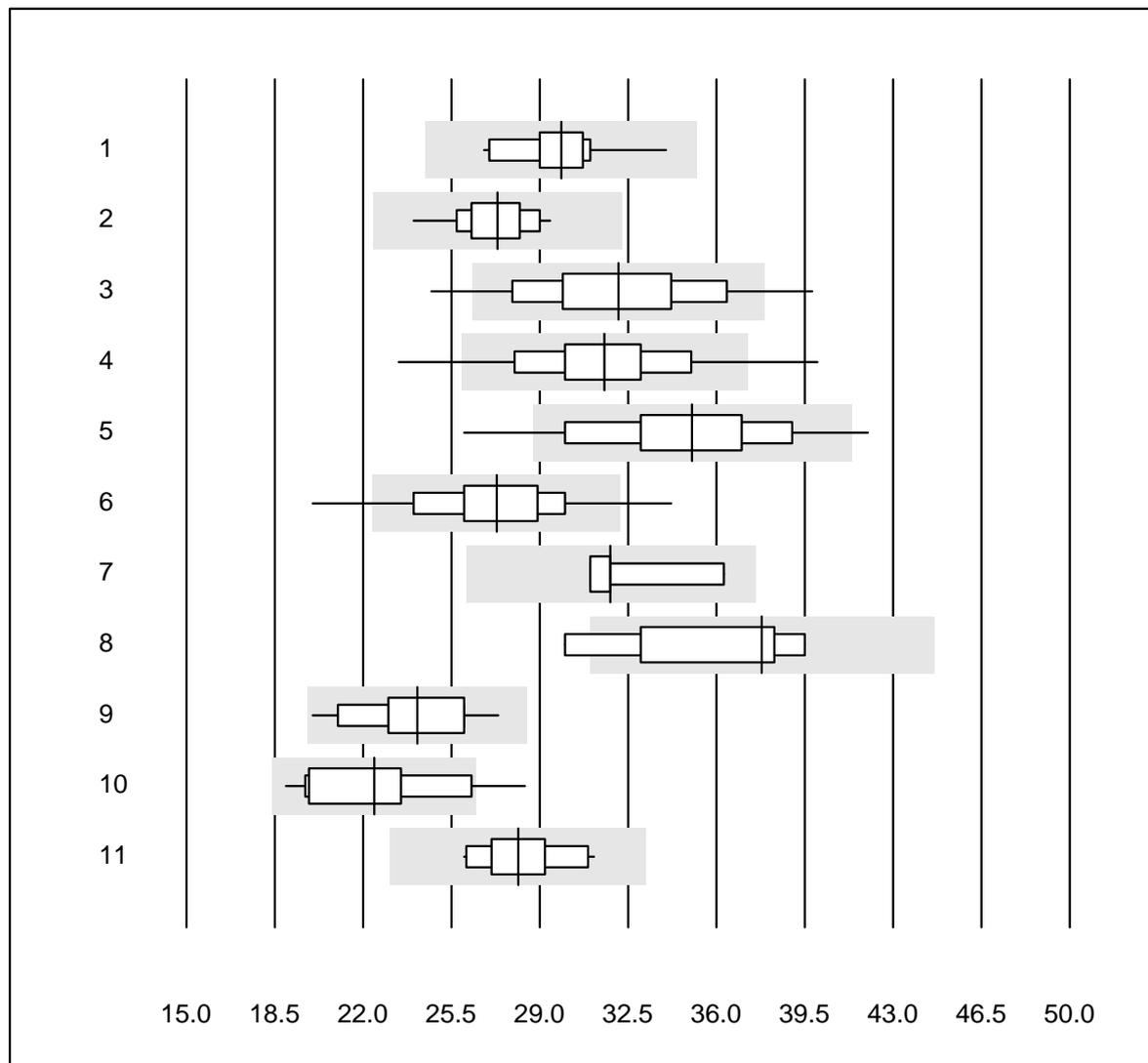
Bilirubin

QUALAB tolerance : 18 %

Bilirubin (µmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	16	100.0	0.0	0.0	29.9	5.6	e
2	Cobas	25	100.0	0.0	0.0	27.3	4.9	e
3	Reflotron	181	86.2	8.3	5.5	32.1	10.1	e
4	Fuji Dri-Chem	769	95.5	2.5	2.0	31.6	8.5	e
5	Spotchem SP-4430	54	79.6	5.6	14.8	35.0	10.0	e
6	Spotchem D-Concept	331	93.4	5.1	1.5	27.3	8.4	e
7	Dimension	4	100.0	0.0	0.0	31.8	7.4	e*
8	Beckman	7	85.7	14.3	0.0	37.8	9.5	e*
9	Piccolo	66	93.9	0.0	6.1	24.1	8.1	e
10	Selectra Pro	15	73.3	6.7	20.0	22.4	12.7	e*
11	Autolyser/DiaSys	17	100.0	0.0	0.0	28.2	5.6	e

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)
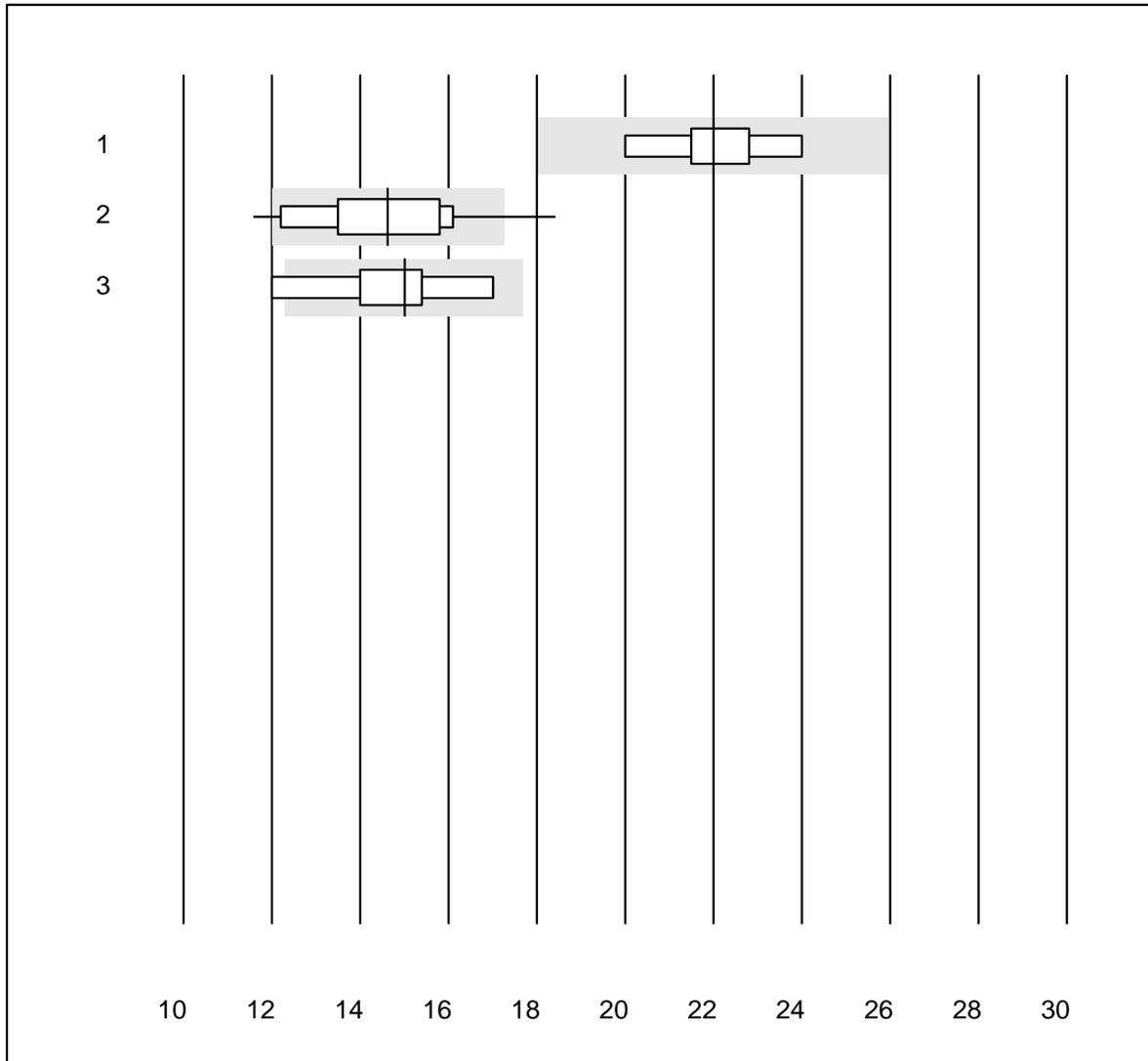
Bilirubin direct



MQ tolerance : 18 %

Bilirubin direct (µmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Autolyser/DiaSys	9	100.0	0.0	0.0	22.0	6.1	e
2	Fuji Dri-Chem	28	71.4	10.7	17.9	14.6	10.8	e
3	Piccolo	5	80.0	20.0	0.0	15.0	12.6	e*

Calcium
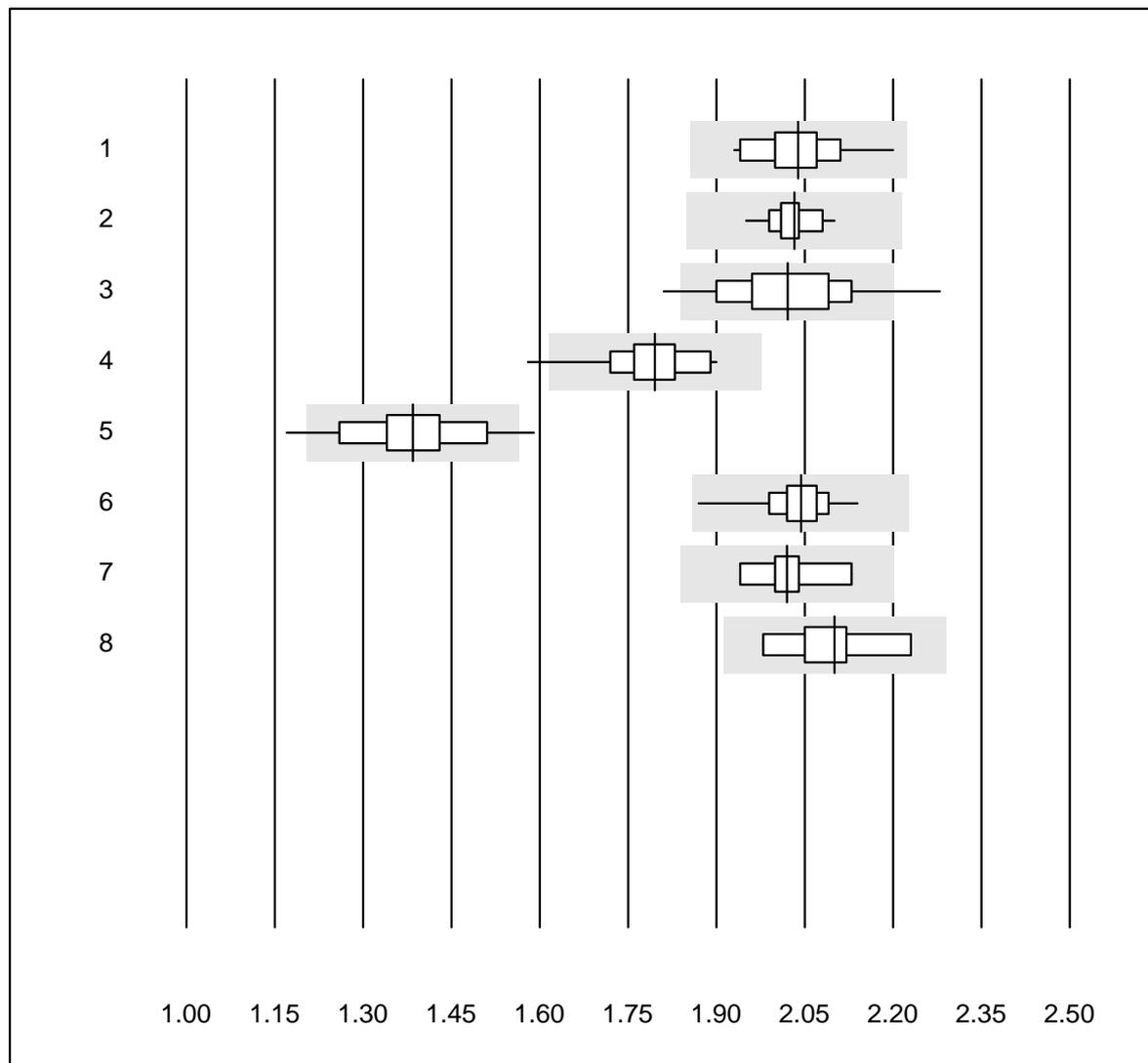
QUALAB tolerance : 9 %
(< 2.00: +/- 0.18 mmol/l)

Calcium (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	26	100.0	0.0	0.0	2.04	3.2	e
2	Cobas	25	100.0	0.0	0.0	2.03	1.7	e
3	Fuji Dri-Chem	339	96.1	2.7	1.2	2.02	4.3	e
4	Spotchem SP-4430	12	91.7	8.3	0.0	1.80	4.8	e*
5	Spotchem D-Concept	77	93.5	3.9	2.6	1.38	6.1	e
6	Piccolo	56	98.2	0.0	1.8	2.04	2.2	e
7	Selectra Pro	7	85.7	0.0	14.3	2.02	3.1	e*
8	Autolyser/DiaSys	9	100.0	0.0	0.0	2.10	3.7	e*

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Calcium ISE

1

0.55 0.57 0.59 0.61 0.63 0.65 0.67 0.69 0.71 0.73 0.75
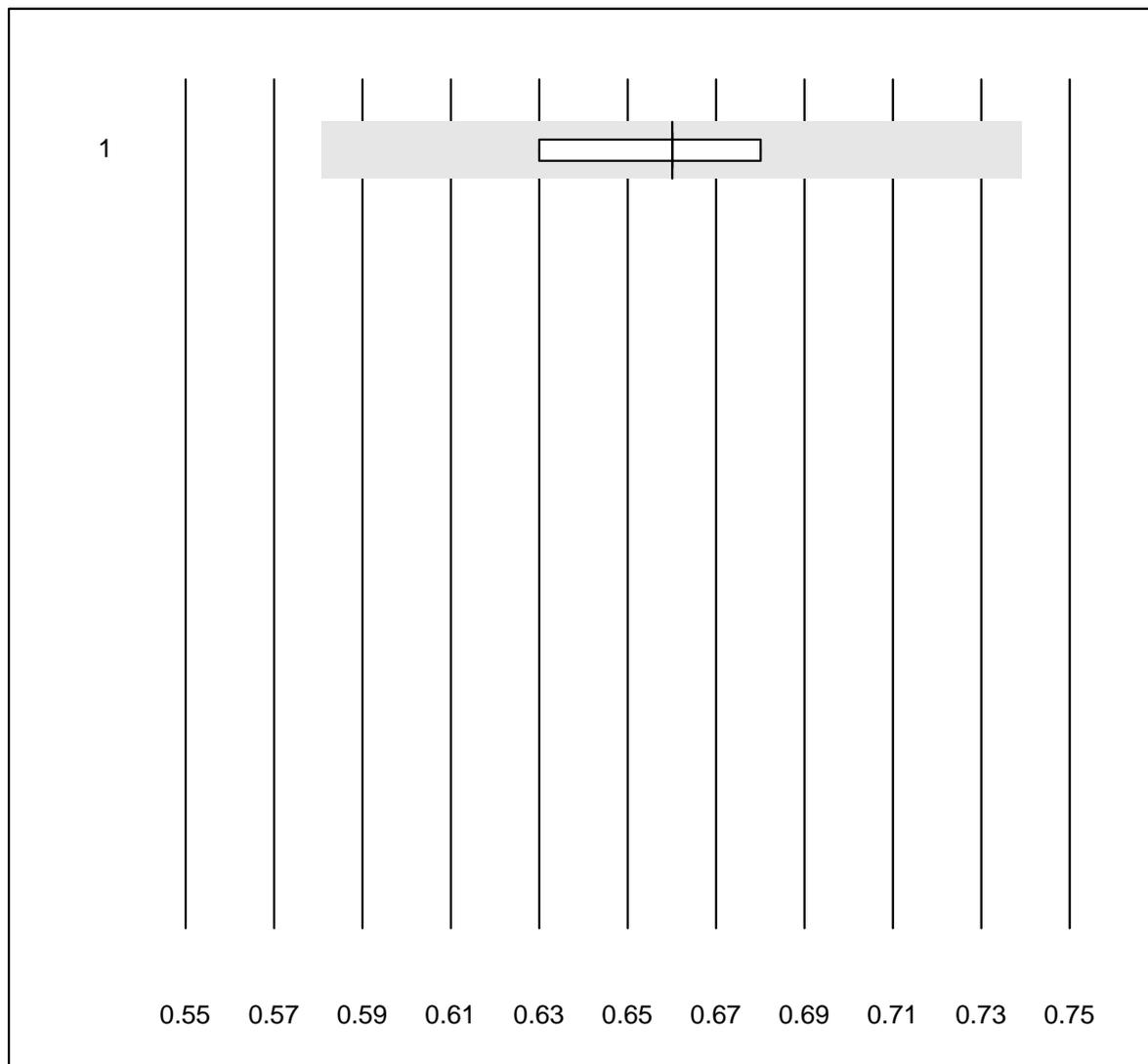
MQ tolerance : 12 %

Calcium ISE (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	iStat Chem8	5	100.0	0.0	0.0	0.66	2.7	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Chloride

QUALAB tolerance : 6 %

Chloride (mmol/l)
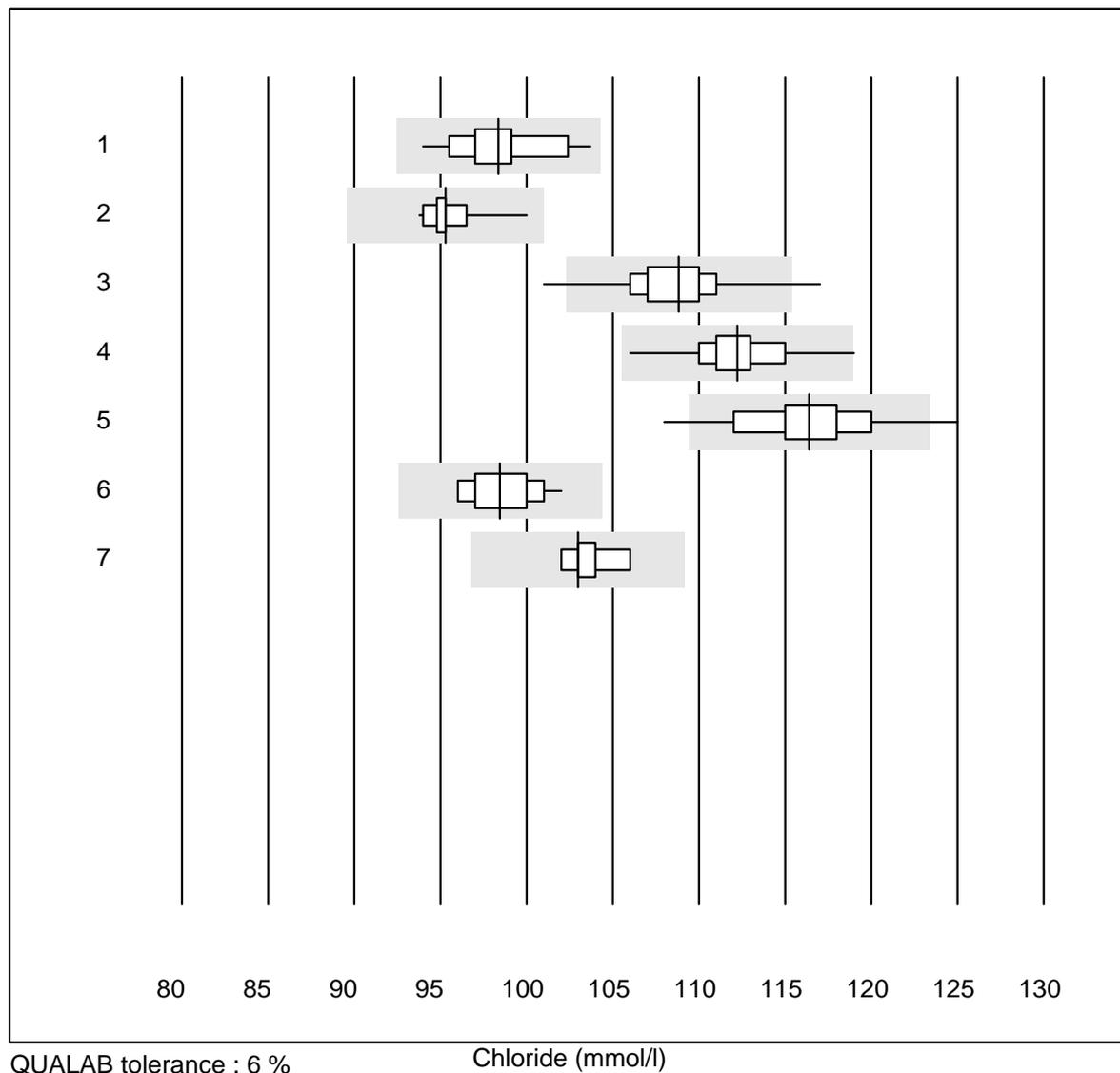
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ISE	30	96.7	0.0	3.3	98	2.4	e
2	Cobas	16	93.7	0.0	6.3	95	1.5	e
3	Fuji Dri-Chem	865	97.0	1.3	1.7	109	2.0	e
4	Spotchem D-Concept	361	98.3	0.3	1.4	112	1.7	e
5	Spotchem EL-SE 1520	65	86.1	6.2	7.7	116	2.9	e
6	Piccolo	26	100.0	0.0	0.0	98	1.7	e
7	iStat Chem8	5	100.0	0.0	0.0	103	1.5	e

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)
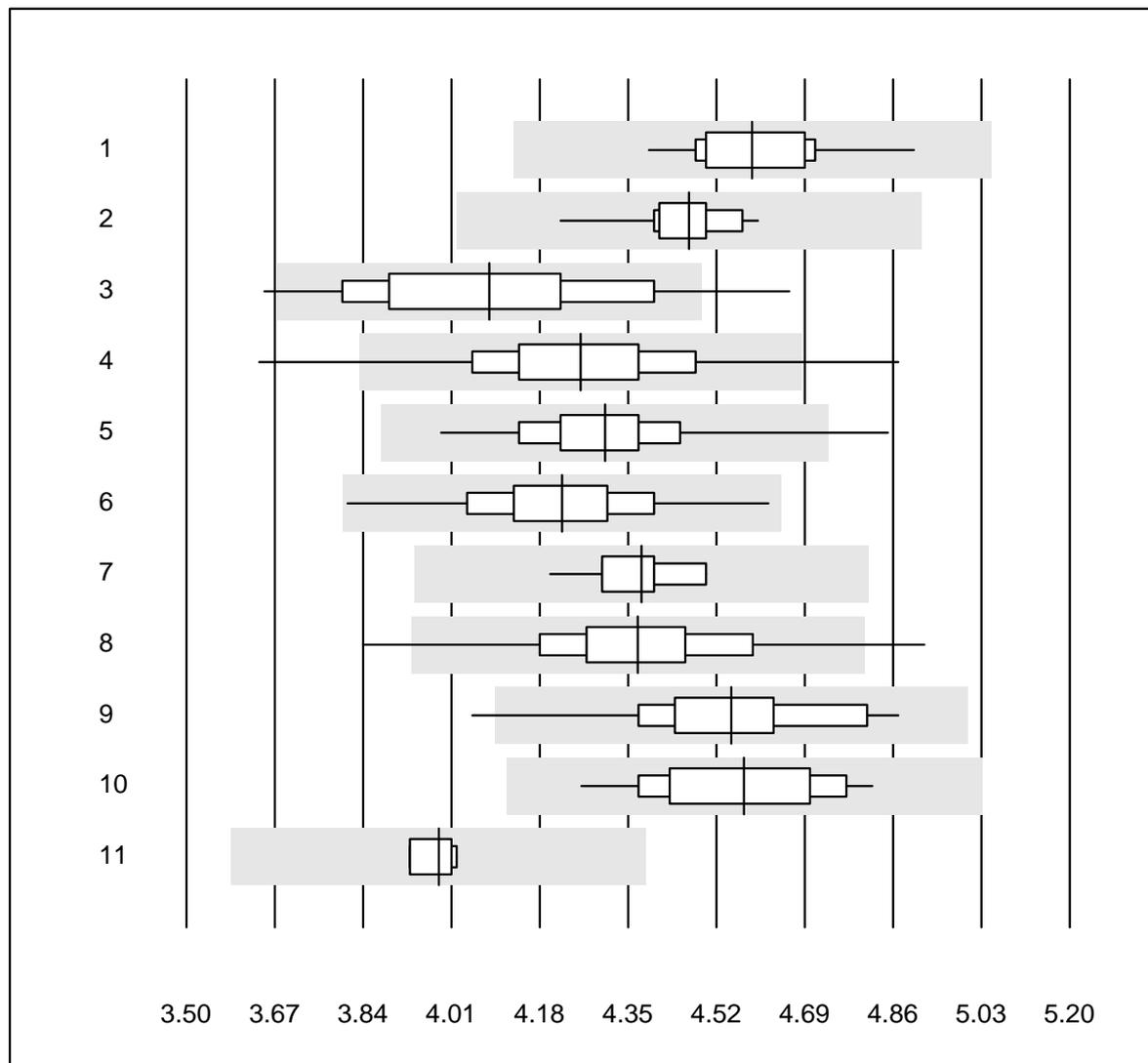
Cholesterol total

QUALAB tolerance : 10 %

Cholesterol total (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	25	100.0	0.0	0.0	4.59	2.6	e
2	Cobas	23	100.0	0.0	0.0	4.47	1.8	e
3	Reflotron	119	91.6	5.9	2.5	4.08	5.5	e
4	Fuji Dri-Chem	913	97.6	0.9	1.5	4.26	3.9	e
5	Spotchem SP-4430	75	98.7	1.3	0.0	4.31	3.3	e
6	Spotchem D-Concept	404	98.0	0.0	2.0	4.22	3.3	e
7	Piccolo	32	96.9	0.0	3.1	4.38	1.8	e
8	Cholestech LDX	306	96.8	1.6	1.6	4.37	3.8	e
9	Selectra Pro	12	91.7	8.3	0.0	4.55	4.7	e*
10	Autolyser/DiaSys	20	100.0	0.0	0.0	4.57	3.5	e
11	Other methods	4	100.0	0.0	0.0	3.99	1.1	e

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Cholesterin HDL
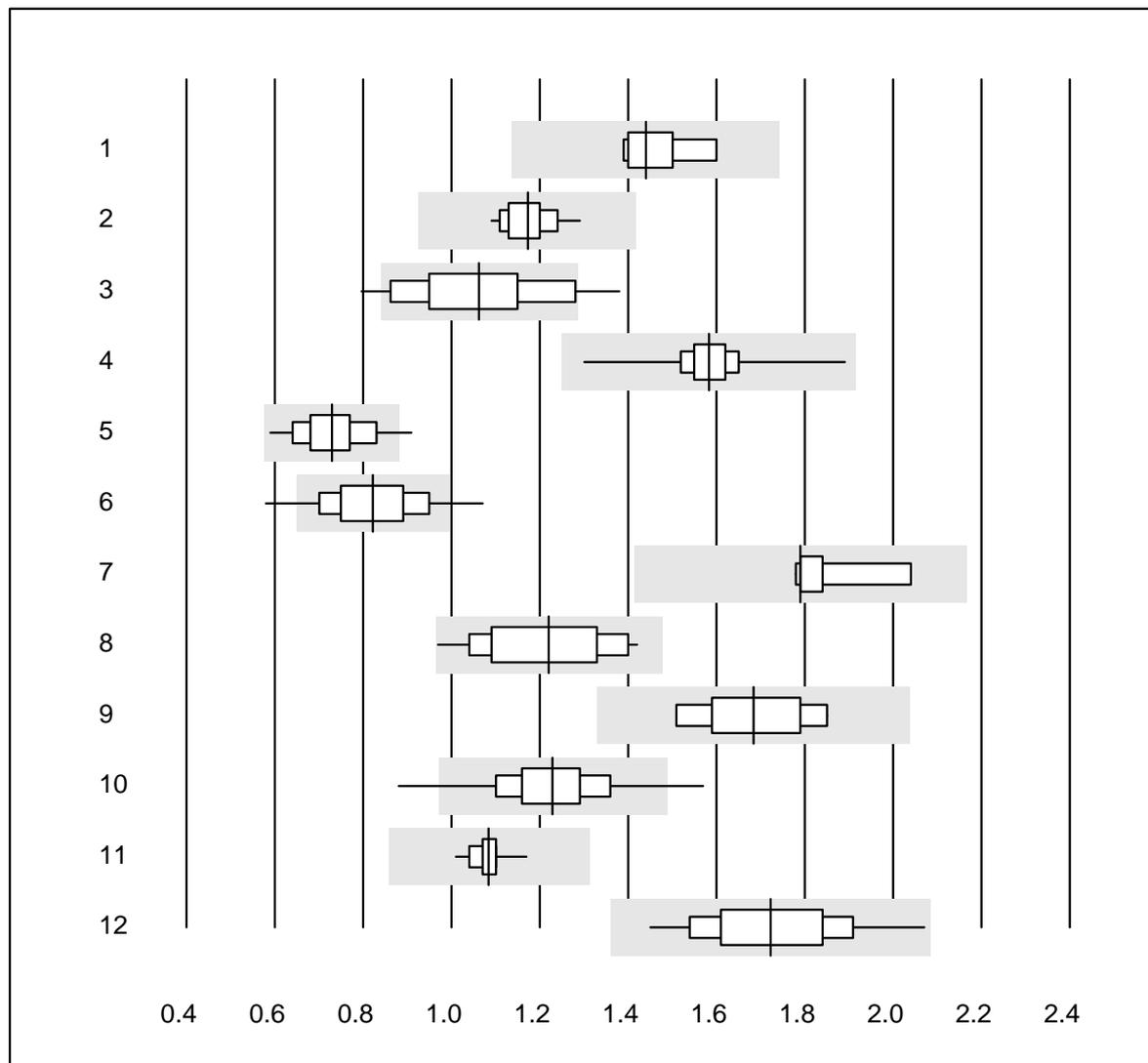
QUALAB tolerance : 21 %   Cholesterin HDL (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Wet chemistry, direc	6	83.3	0.0	16.7	1.44	5.8	e
2	Cobas	21	100.0	0.0	0.0	1.17	4.8	e
3	Reflotron	63	73.0	11.1	15.9	1.06	14.0	e
4	Fuji Dri-Chem	880	99.2	0.0	0.8	1.58	3.3	e
5	Spotchem SP-4430	68	97.1	2.9	0.0	0.73	9.9	e
6	Spotchem D-Concept	389	92.3	4.9	2.8	0.82	11.6	e
7	Dimension	5	100.0	0.0	0.0	1.79	5.9	e*
8	Piccolo	30	80.0	0.0	20.0	1.22	10.9	e
9	Pentra/Selectra	10	80.0	0.0	20.0	1.68	7.2	e
10	Cholestech LDX	306	94.8	2.9	2.3	1.23	8.6	e
11	Architect	13	100.0	0.0	0.0	1.08	3.5	e
12	Autolyser/DiaSys	20	95.0	0.0	5.0	1.72	8.9	e

6 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Creatine kinase

QUALAB tolerance : 18 %

Creatine kinase (U/l)
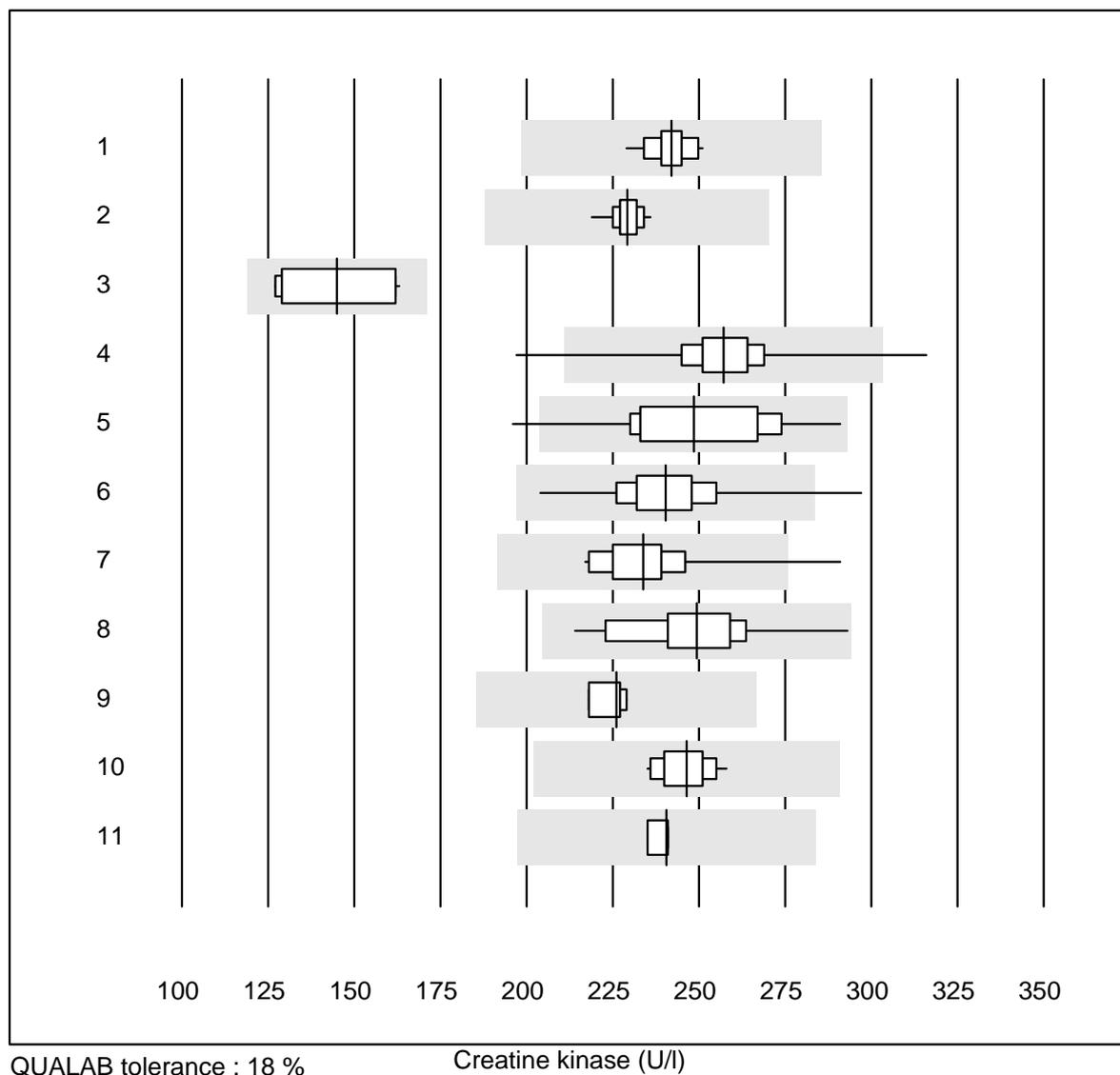
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	IFCC	19	100.0	0.0	0.0	242	2.3	e
2	Cobas	23	95.7	0.0	4.3	229	1.8	e
3	Reflotron	11	90.9	0.0	9.1	145	9.7	e*
4	Fuji Dri-Chem	623	97.4	1.0	1.6	257	4.8	e
5	Spotchem SP-4430	35	88.5	2.9	8.6	248	8.2	e
6	Spotchem D-Concept	250	99.2	0.8	0.0	240	5.3	e
7	Piccolo	26	96.2	3.8	0.0	234	6.4	e
8	Selectra Pro	11	100.0	0.0	0.0	249	8.3	e*
9	Dimension	4	100.0	0.0	0.0	226	2.1	e
10	Autolyser/DiaSys	17	100.0	0.0	0.0	246	2.8	e
11	Other methods	4	100.0	0.0	0.0	241	1.2	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Cholesterol LDL
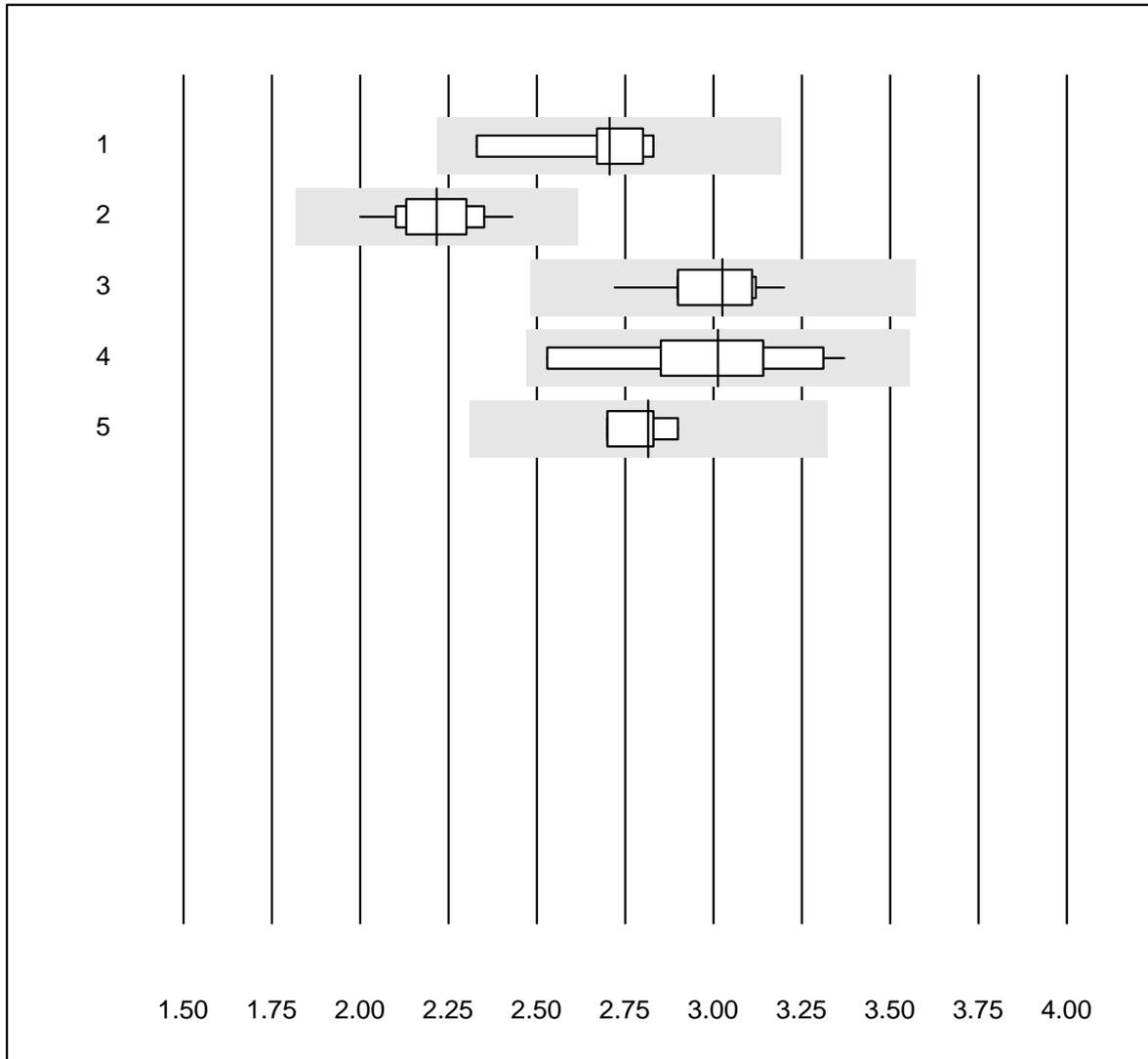
QUALAB tolerance : 18 % Cholesterol LDL (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Selectra	6	83.3	0.0	16.7	2.7	7.5	e*
2	Standard chemistry	14	100.0	0.0	0.0	2.2	5.2	e
3	Roche, Cobas	12	100.0	0.0	0.0	3.0	4.4	e
4	Autolyser/DiaSys	13	76.9	0.0	23.1	3.0	8.0	e*
5	Beckman	4	100.0	0.0	0.0	2.8	3.0	e

One result was submitted but not published because the method group was too small. (<4 results per group)

Iron
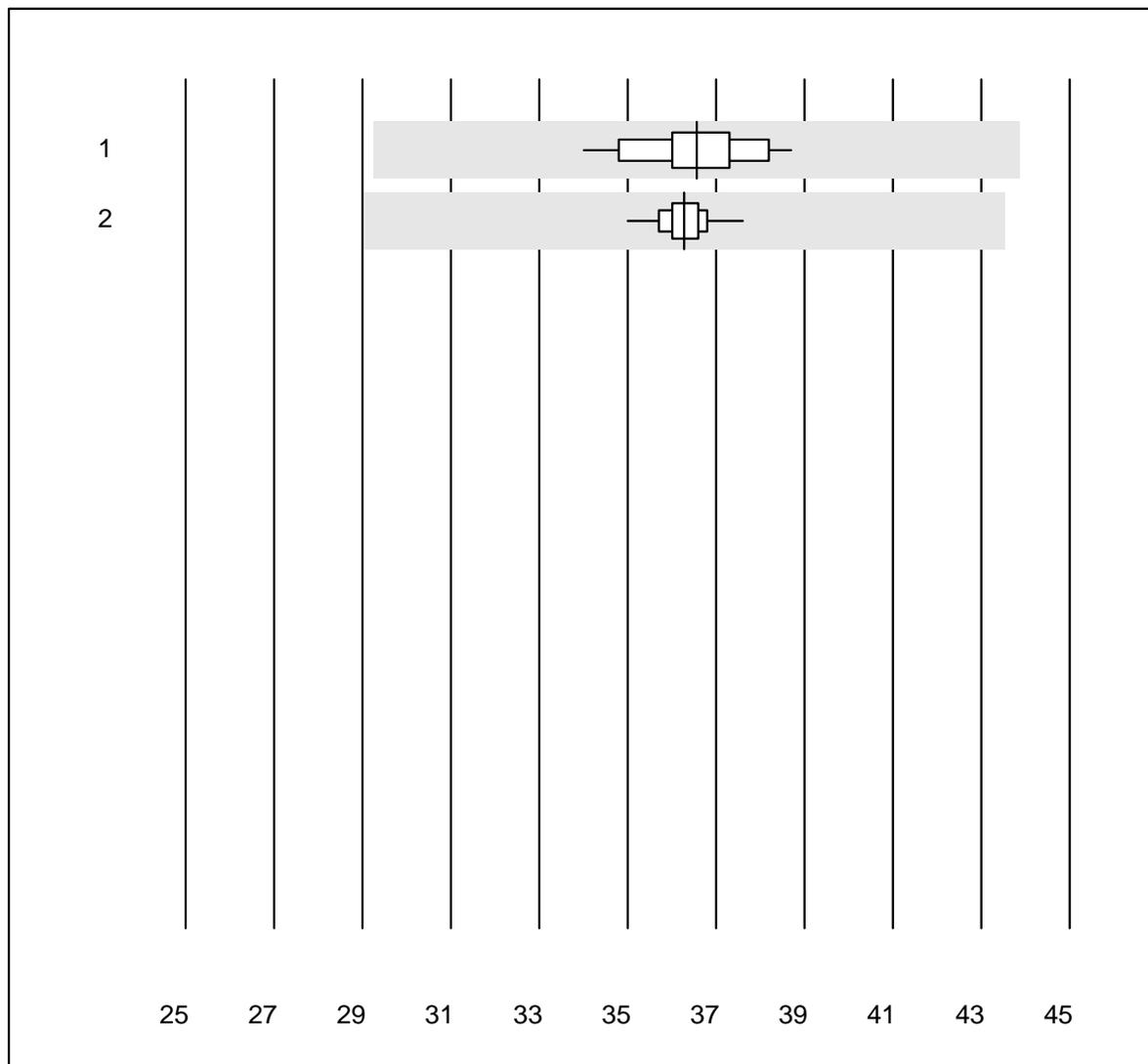
QUALAB tolerance : 20 %

Iron (µmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	14	100.0	0.0	0.0	37	3.4	e
2	Cobas	14	100.0	0.0	0.0	36	1.6	e

One result was submitted but not published because the method group was too small. (<4 results per group)

Gamma-glutamyltransferase
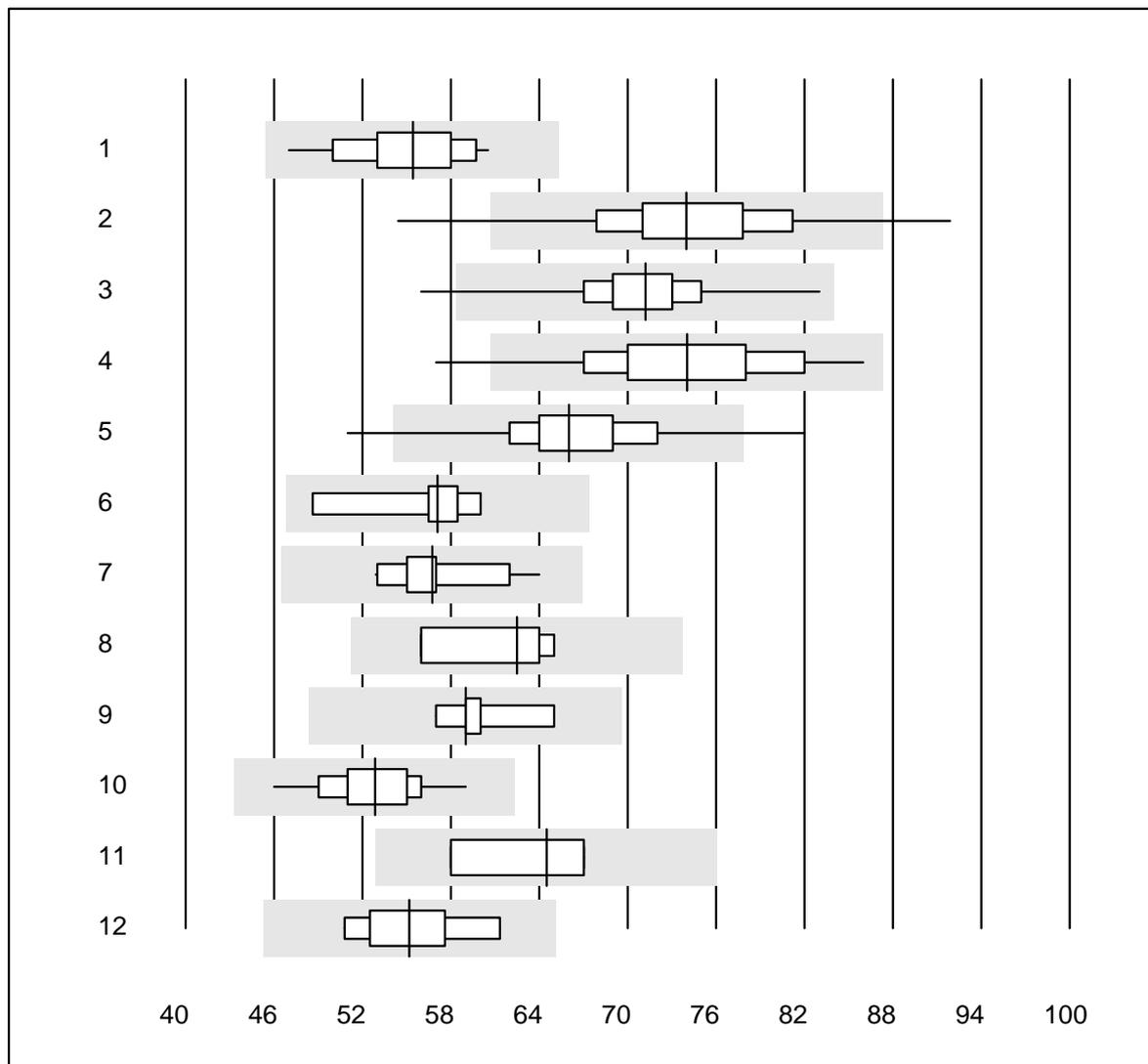
QUALAB tolerance : 18 %   Gamma-glutamyltransferase (U/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	26	100.0	0.0	0.0	55	7.1	e
2	Reflotron	322	96.3	2.5	1.2	74	7.3	e
3	Fuji Dri-Chem	1046	99.1	0.1	0.8	71	4.8	e
4	Spotchem SP-4430	93	95.7	3.2	1.1	74	7.8	e
5	Spotchem D-Concept	474	96.8	2.1	1.1	66	6.4	e
6	Selectra/Biolis	5	100.0	0.0	0.0	57	7.9	e*
7	Architect	12	100.0	0.0	0.0	57	5.7	e
8	Dimension	4	100.0	0.0	0.0	63	6.6	e*
9	IFCC Beckmann	6	100.0	0.0	0.0	59	4.5	e
10	Piccolo	54	100.0	0.0	0.0	53	5.5	e
11	Skyla	4	100.0	0.0	0.0	65	6.9	e*
12	Selectra Pro	10	90.0	0.0	10.0	55	6.4	e
13	Autolyser/DiaSys	20	100.0	0.0	0.0	59	3.6	e

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Glucose

QUALAB tolerance : 9 %

Glucose (mmol/l)
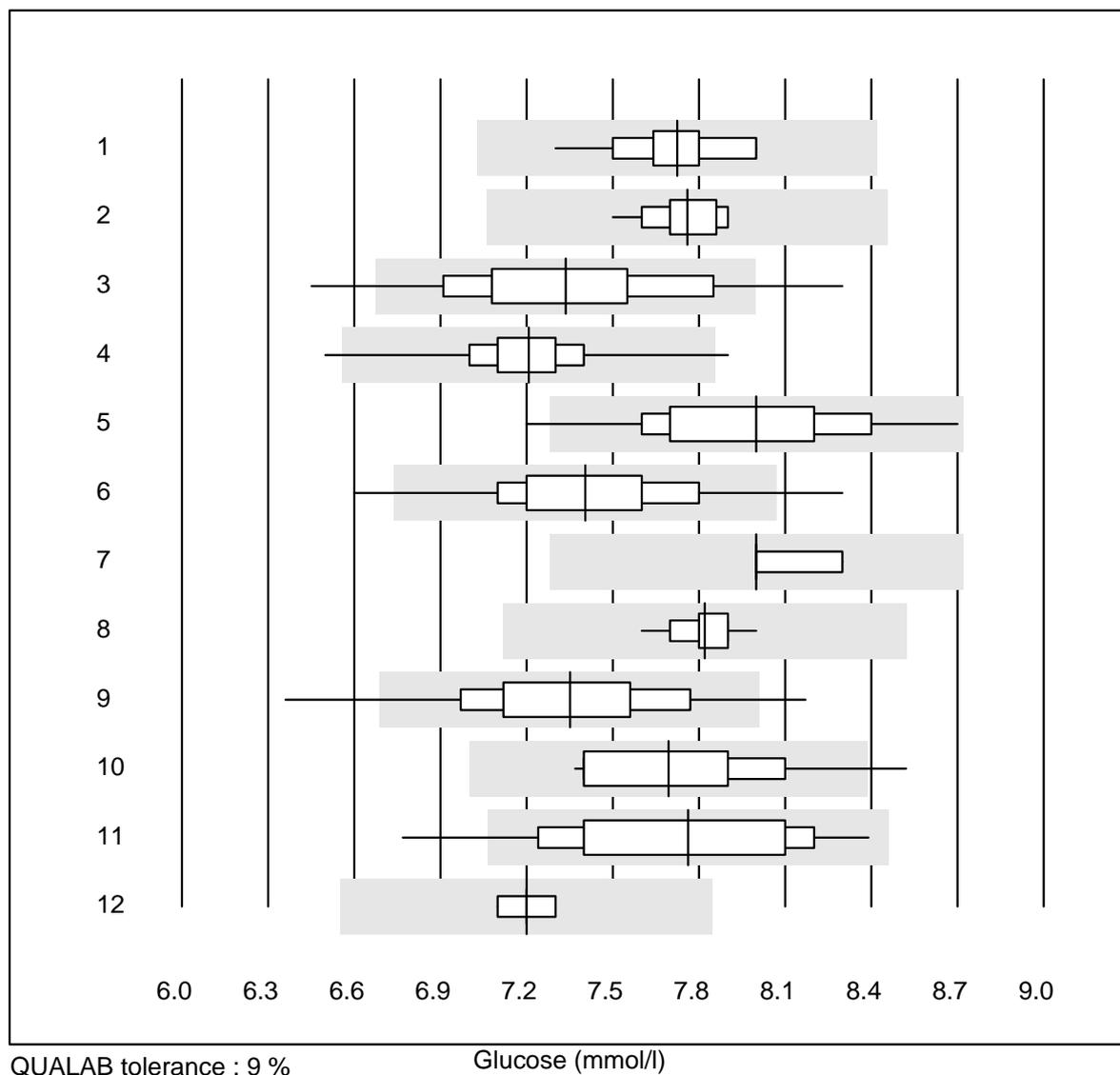
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	26	100.0	0.0	0.0	7.7	2.2	e
2	Cobas	25	100.0	0.0	0.0	7.8	1.5	e
3	Reflotron	313	87.2	7.7	5.1	7.3	4.9	e
4	Fuji Dri-Chem	977	99.3	0.2	0.5	7.2	2.2	e
5	Spotchem SP-4430	78	94.9	3.8	1.3	8.0	4.3	e
6	Spotchem D-Concept	443	97.3	1.8	0.9	7.4	3.7	e
7	Dimension	4	100.0	0.0	0.0	8.0	1.9	e
8	Piccolo	74	98.6	0.0	1.4	7.8	1.2	e
9	Cholestech LDX	302	96.4	3.3	0.3	7.4	4.2	e
10	Selectra Pro	15	93.3	6.7	0.0	7.7	4.1	e
11	Autolyser/DiaSys	19	94.7	5.3	0.0	7.8	5.2	e*
12	iStat Chem8	7	100.0	0.0	0.0	7.2	0.8	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Glucose

QUALAB tolerance : 9 %

Glucose (mmol/l)
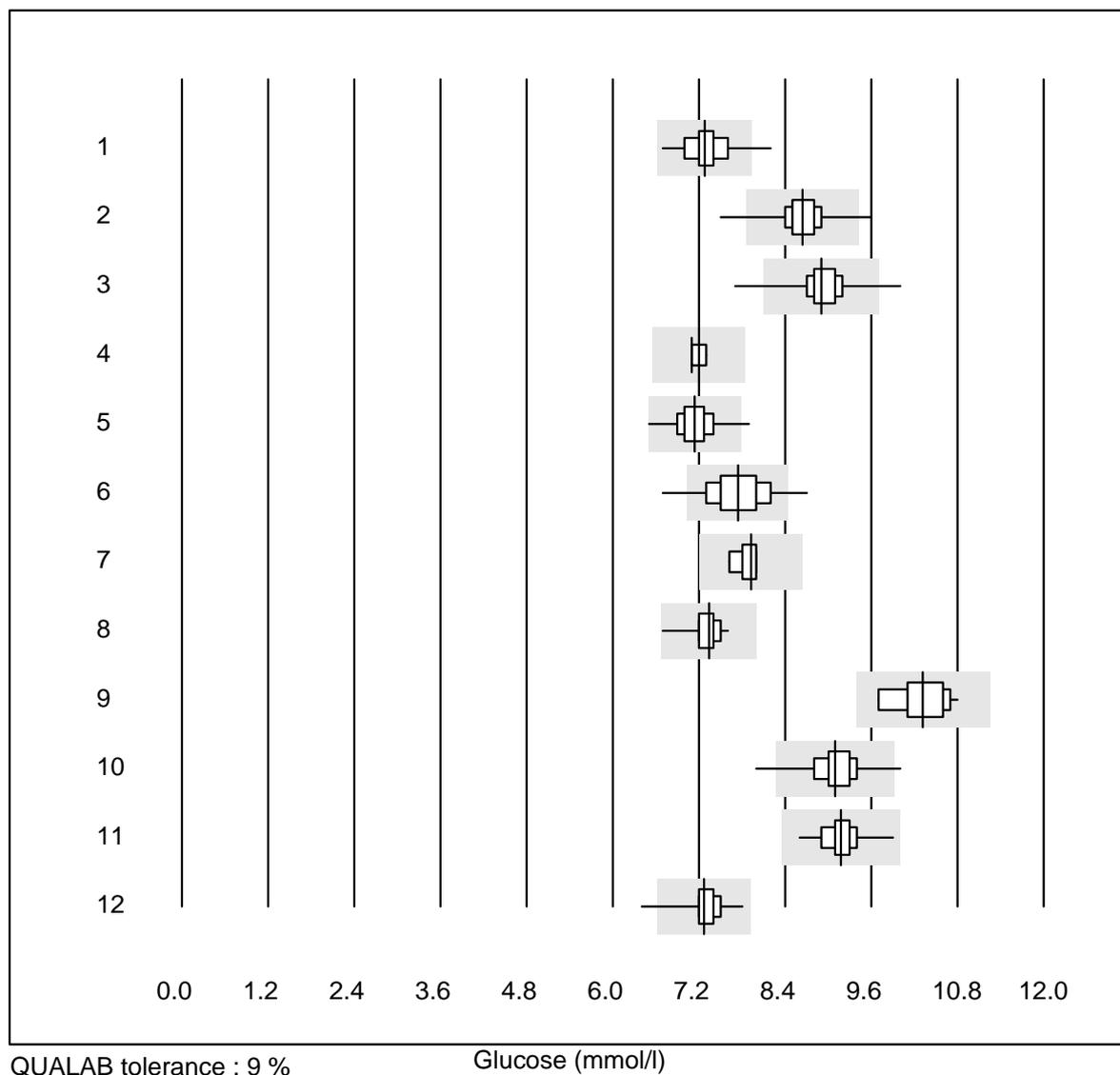
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Accu-Chek Instant	105	98.0	1.0	1.0	7.3	3.5	e
2	Accu-Chek Aviva	251	90.8	4.8	4.4	8.6	3.5	e
3	Accu-Chek Inform 2	783	98.6	1.0	0.4	8.9	2.8	e
4	Accu-Chek Mobile	9	100.0	0.0	0.0	7.2	1.0	e
5	Accu-Check Guide	294	99.0	1.0	0.0	7.1	2.7	e
6	Contour XT	1301	94.4	3.6	2.0	7.7	4.4	e
7	Skyla	6	100.0	0.0	0.0	7.9	2.0	e
8	Statstrip/Xpress	100	100.0	0.0	0.0	7.3	2.0	e
9	Glucocard	10	100.0	0.0	0.0	10.3	3.2	e
10	Hemocue 201+ P-equiv	105	96.2	1.9	1.9	9.1	3.1	e
11	Hemocue 201RT P-equi	130	99.2	0.0	0.8	9.2	2.4	e
12	Contour NEXT	12	91.7	8.3	0.0	7.3	4.5	e*

11 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)
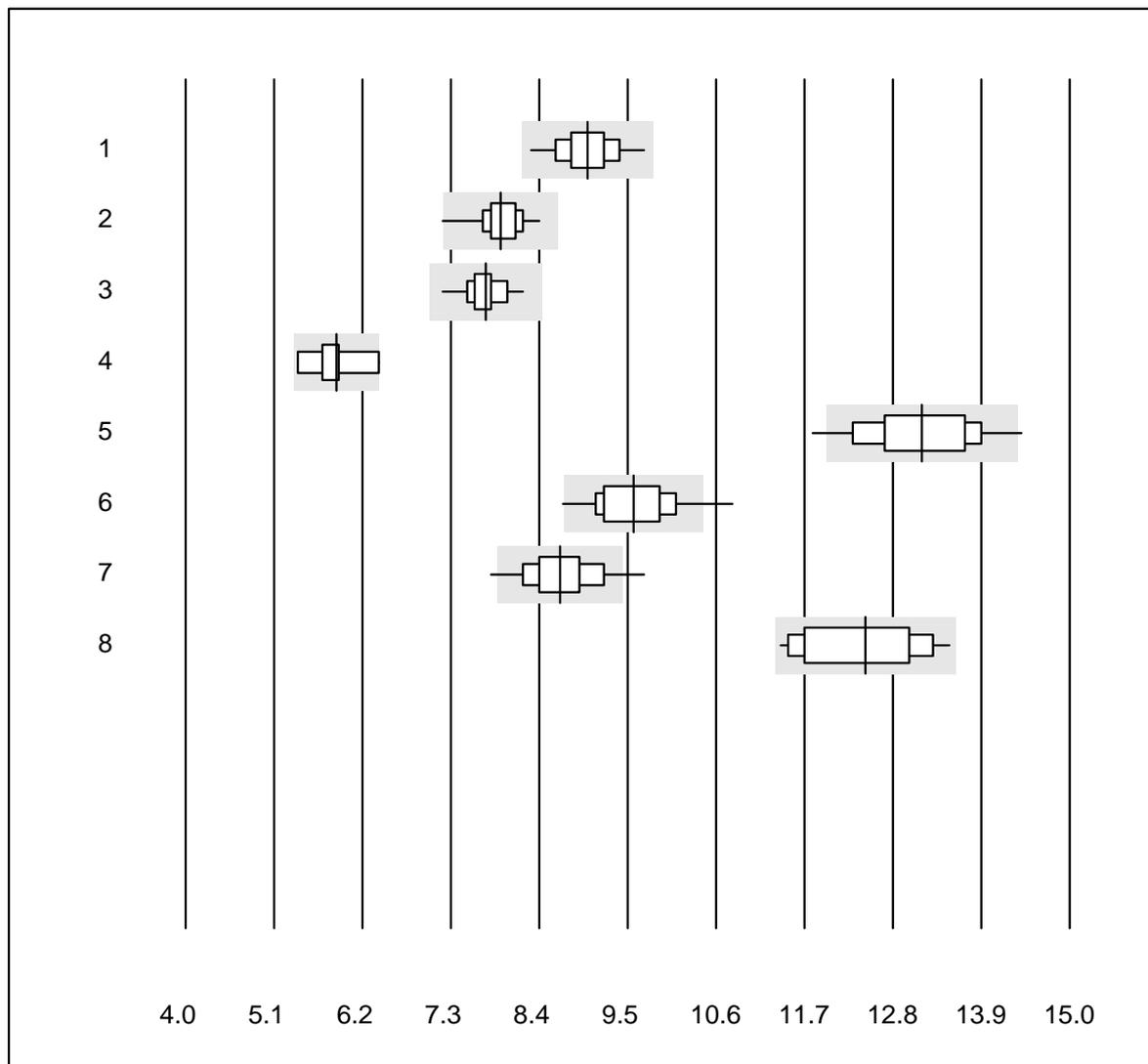
Glucose B

QUALAB tolerance : 9 %

Glucose B (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Hemocue 201+ (alt)	34	97.1	0.0	2.9	9.0	3.5	e
2	AccuChek Sensor	30	96.7	3.3	0.0	7.9	3.1	e
3	OneTouch Verio	23	100.0	0.0	0.0	7.7	2.9	e
4	Contour 2 (5s)	12	75.0	0.0	25.0	5.9	5.2	e*
5	Healthpro	27	85.2	7.4	7.4	13.2	4.8	e
6	Mylife UNIO	364	97.6	1.9	0.5	9.6	4.3	e
7	mylife Pura	99	96.0	2.0	2.0	8.7	4.6	e
8	Alpha Check	23	65.2	0.0	34.8	12.5	5.4	e*

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Uric Acid

QUALAB tolerance : 12 %

Uric Acid (µmol/l)
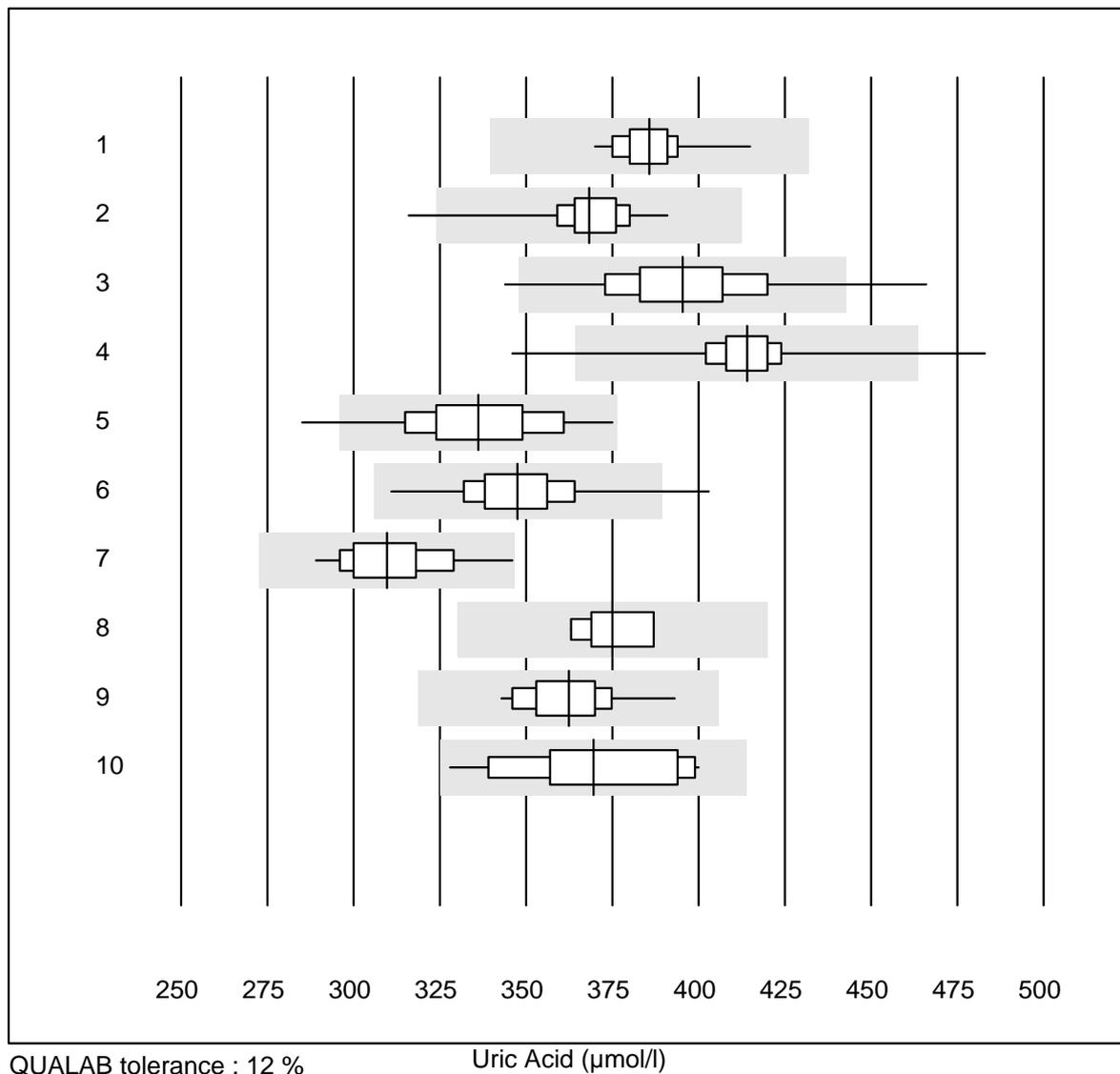
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	28	96.4	0.0	3.6	386	2.4	e
2	Cobas	22	95.5	4.5	0.0	368	4.0	e
3	Reflotron	252	95.2	2.8	2.0	395	5.0	e
4	Fuji Dri-Chem	970	97.8	0.7	1.5	414	2.5	e
5	Spotchem SP-4430	76	96.1	1.3	2.6	336	5.4	e
6	Spotchem D-Concept	445	99.1	0.2	0.7	348	3.7	e
7	Piccolo	34	100.0	0.0	0.0	310	4.5	e
8	Skyla	5	100.0	0.0	0.0	375	2.9	e
9	Selectra Pro	16	100.0	0.0	0.0	362	3.6	e
10	Autolyser/DiaSys	19	100.0	0.0	0.0	370	5.6	e

One result was submitted but not published because the method group was too small. (<4 results per group)

Urea
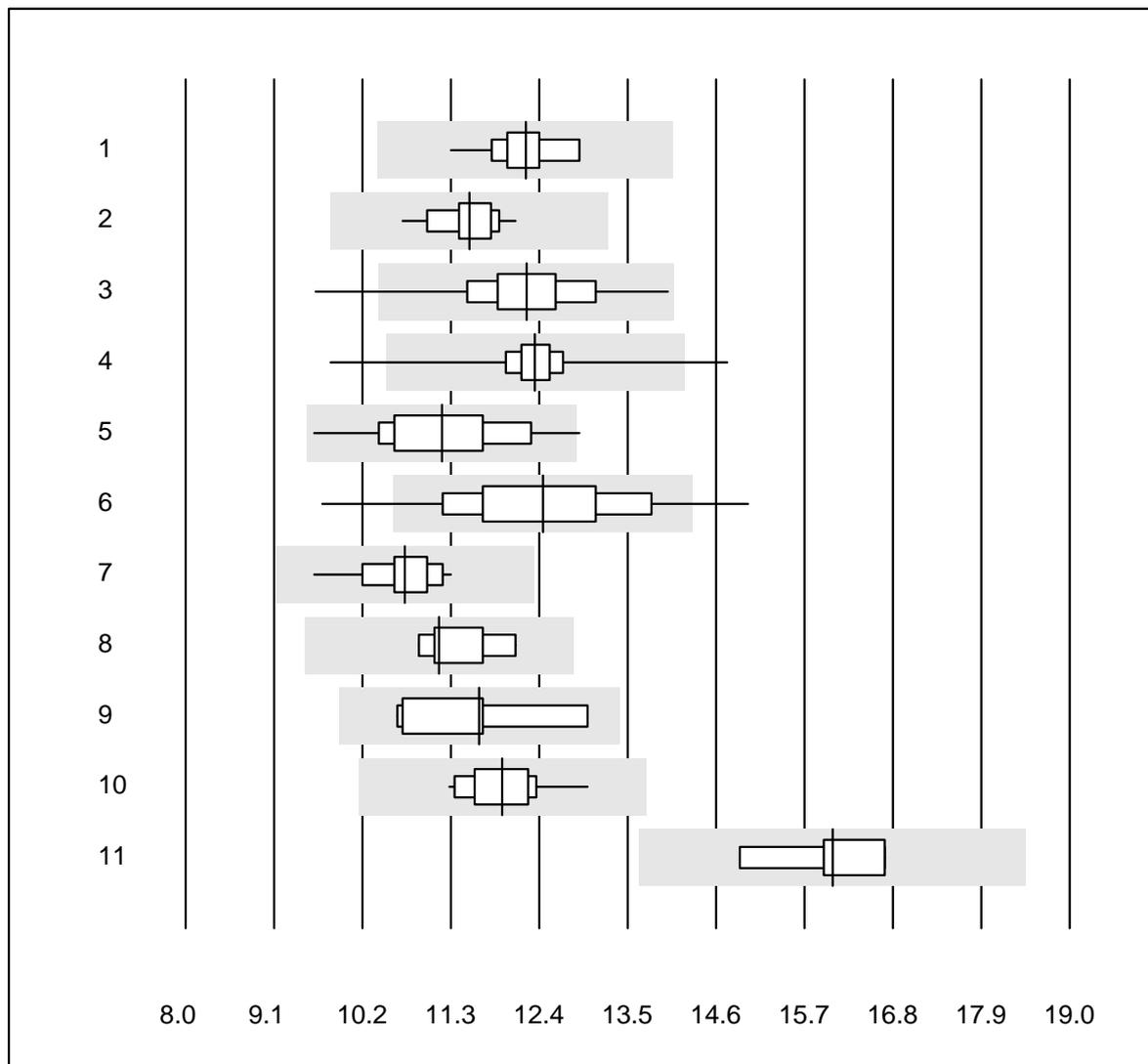
QUALAB tolerance : 15 %

Urea (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	24	100.0	0.0	0.0	12.2	3.2	e
2	Cobas	23	100.0	0.0	0.0	11.5	3.0	e
3	Reflotron	118	95.8	0.8	3.4	12.2	5.6	e
4	Fuji Dri-Chem	593	99.7	0.3	0.0	12.3	2.6	e
5	Spotchem SP-4430	47	97.9	2.1	0.0	11.2	6.6	e
6	Spotchem D-Concept	261	88.5	7.3	4.2	12.4	8.2	e
7	Piccolo	63	98.4	0.0	1.6	10.7	3.5	e
8	Skyla	6	100.0	0.0	0.0	11.2	4.0	e
9	Selectra Pro	8	100.0	0.0	0.0	11.7	7.5	e*
10	Autolyser/DiaSys	15	100.0	0.0	0.0	11.9	3.7	e
11	iStat Chem8	6	100.0	0.0	0.0	16.1	4.1	e

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Potassium
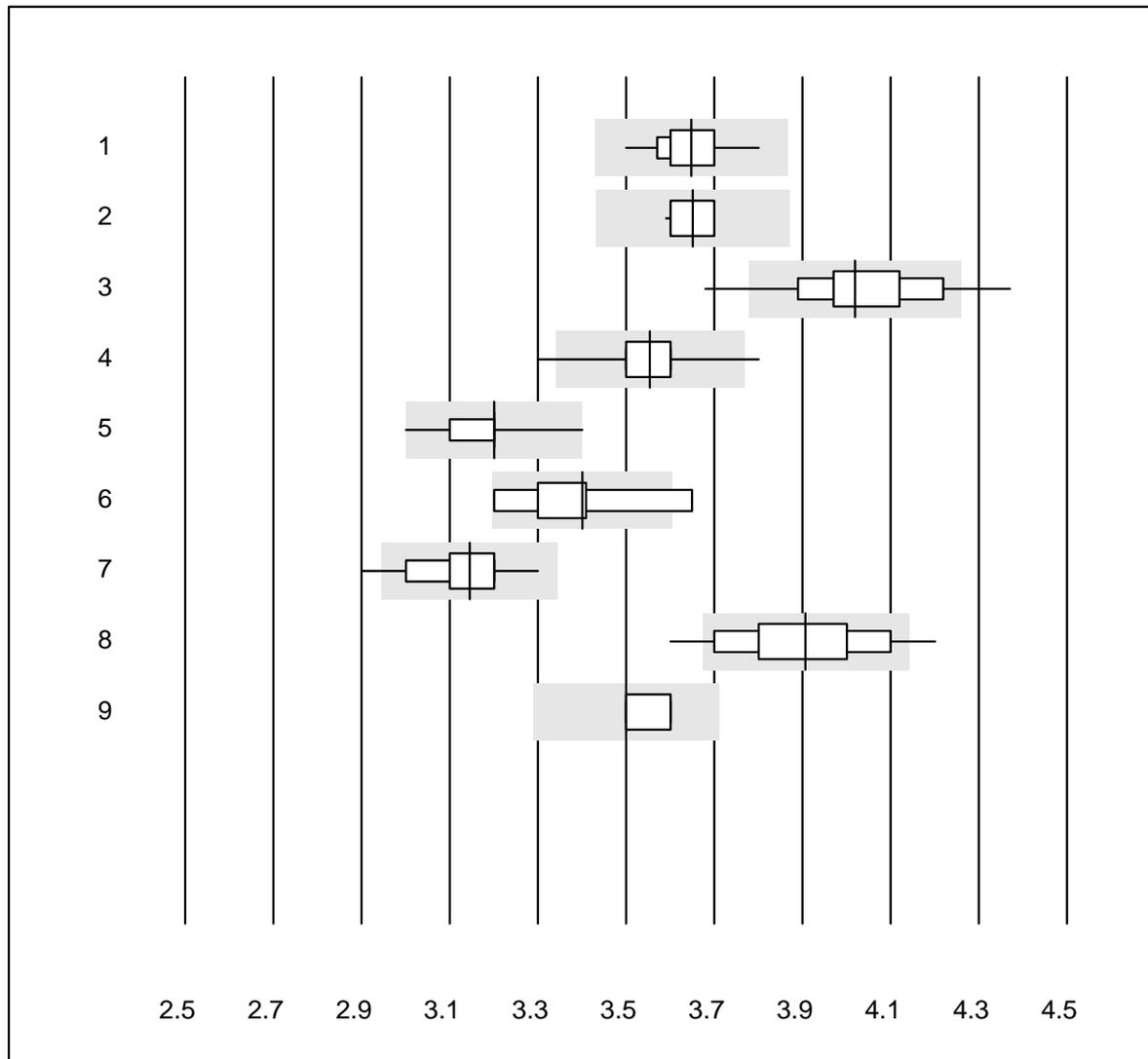
Potassium (mmol/l)

QUALAB tolerance : 6 %
(< 3.30: +/- 0.20 mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ISE	38	100.0	0.0	0.0	3.65	1.8	e
2	Cobas	25	100.0	0.0	0.0	3.65	1.1	e
3	Reflotron	278	87.0	7.6	5.4	4.02	3.2	e
4	Fuji Dri-Chem	1023	96.8	1.2	2.0	3.55	1.8	e
5	Spotchem D-Concept	440	97.7	1.4	0.9	3.20	1.7	e
6	Autolyser/DiaSys	8	75.0	12.5	12.5	3.40	4.2	e*
7	Spotchem EL-SE 1520	73	91.8	6.8	1.4	3.15	3.0	e
8	Piccolo	46	80.5	6.5	13.0	3.91	3.9	e
9	iStat Chem8	7	100.0	0.0	0.0	3.50	1.4	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Creatinine

QUALAB tolerance : 18 %   Creatinine (µmol/l)
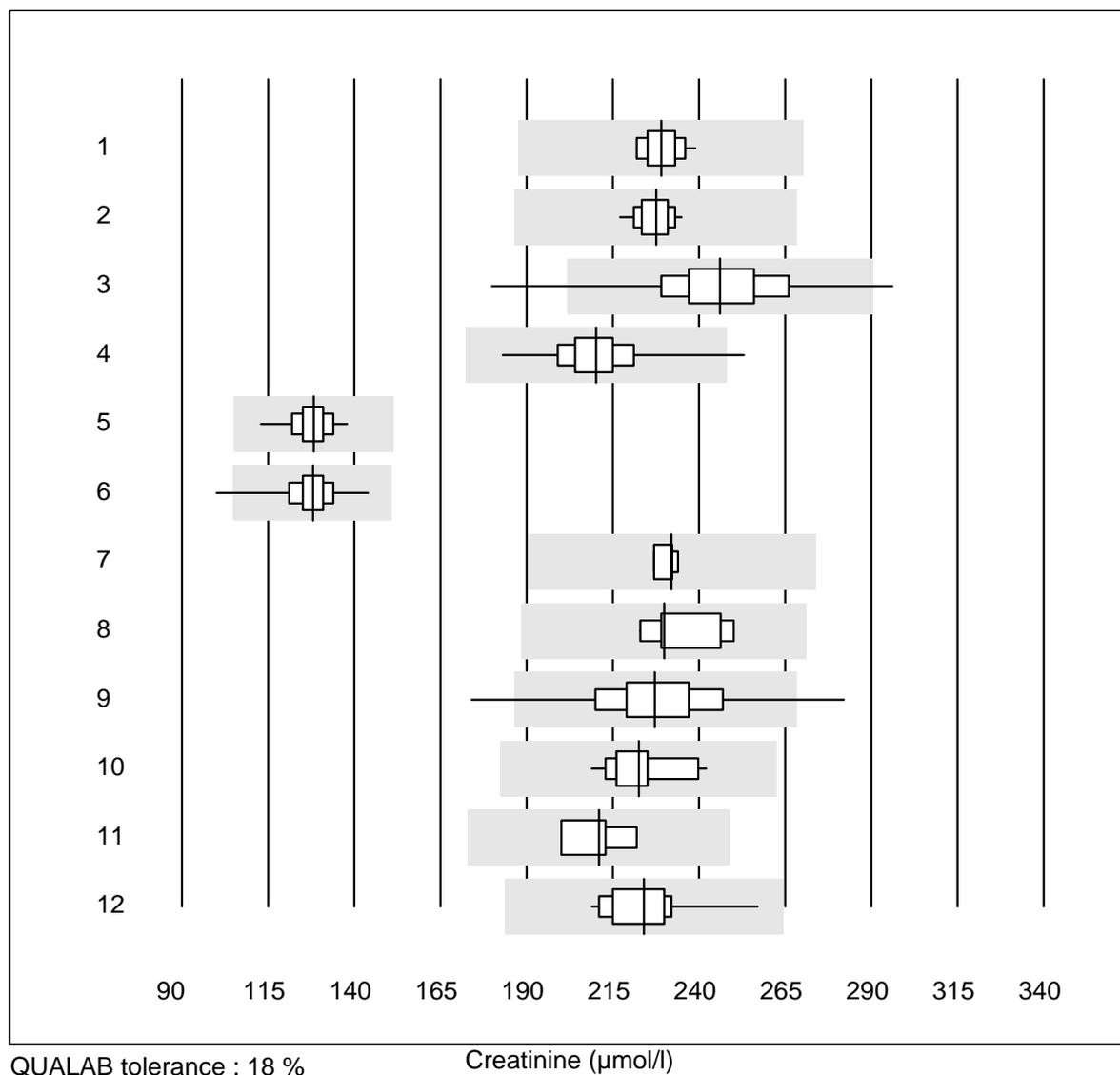
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	12	100.0	0.0	0.0	229	2.4	e
2	Cobas	24	100.0	0.0	0.0	228	2.0	e
3	Reflotron	409	95.1	2.7	2.2	246	6.8	e
4	Fuji Dri-Chem	1071	98.9	0.1	1.0	210	4.2	e
5	Spotchem SP-4430	104	100.0	0.0	0.0	128	4.1	e
6	Spotchem D-Concept	474	99.2	0.2	0.6	128	4.3	e
7	Jaffé Boehringer	4	100.0	0.0	0.0	232	1.3	e
8	Enzymatic	9	100.0	0.0	0.0	230	4.3	e
9	Piccolo	70	95.7	2.9	1.4	227	7.2	e
10	Selectra Pro	17	94.1	0.0	5.9	222	4.1	e
11	Skyla	5	80.0	0.0	20.0	211	4.3	e
12	Autolyser/DiaSys	20	100.0	0.0	0.0	224	4.9	e
13	Other methods	5	100.0	0.0	0.0	243	4.0	e
14	EPOC	10	90.0	0.0	10.0	216	7.1	e*

One result was submitted but not published because the method group was too small. (<4 results per group)

Creatinine E
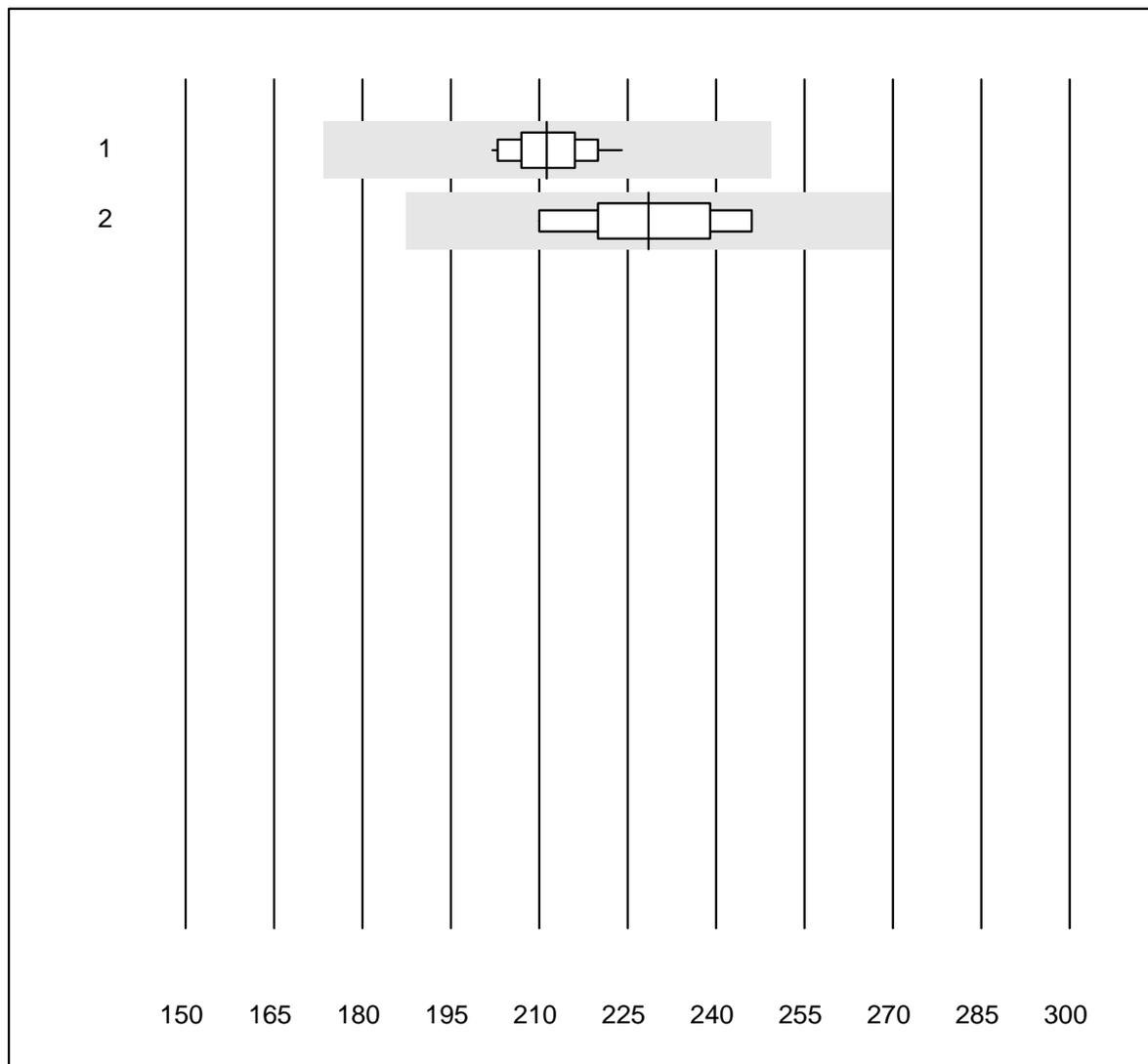
QUALAB tolerance : 18 %

Creatinine E (µmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	iStat Chem8	13	100.0	0.0	0.0	211	3.3	e
2	ABL700/800	8	100.0	0.0	0.0	229	5.3	e

eGFR CKD-EPI

MQ tolerance : 30 %

eGFR CKD-EPI ()
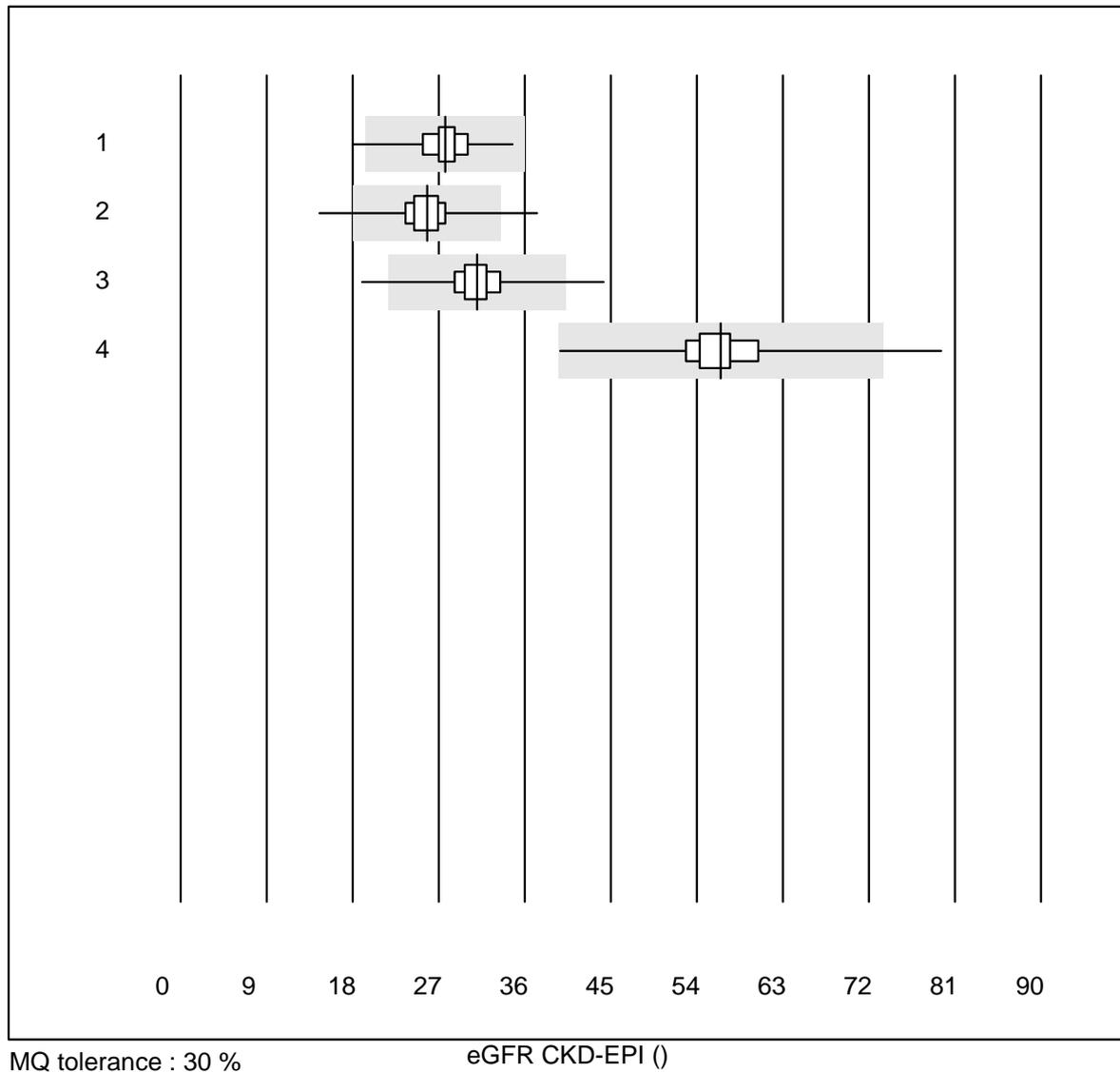
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	64	93.7	1.6	4.7	28	8.9	e
2	Reflotron	108	94.4	2.8	2.8	26	10.2	e
3	Fuji Dri-Chem	401	94.0	2.5	3.5	31	8.5	e
4	Spotchem	214	96.7	1.9	1.4	57	8.6	e

eGFR Cockcroft-Gault

MQ tolerance : 30 %　　　　　eGFR Cockcroft-Gault ()
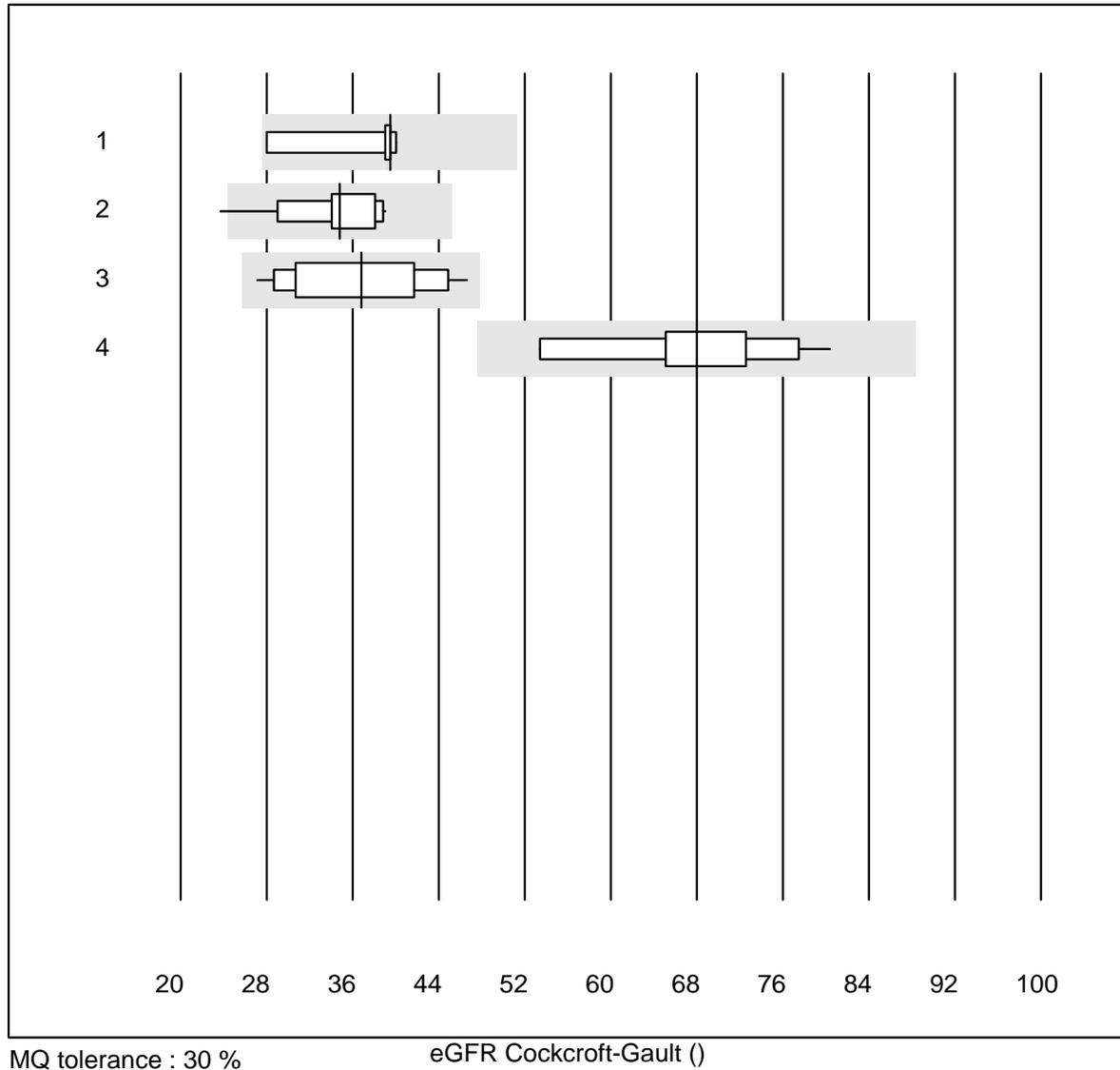
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	5	100.0	0.0	0.0	39	13.9	e*
2	Reflotron	12	83.4	8.3	8.3	35	13.4	e*
3	Fuji Dri-Chem	33	97.0	0.0	3.0	37	17.3	e
4	Spotchem	10	100.0	0.0	0.0	68	12.7	e*

LDH

QUALAB tolerance : 18 %

LDH (U/l)
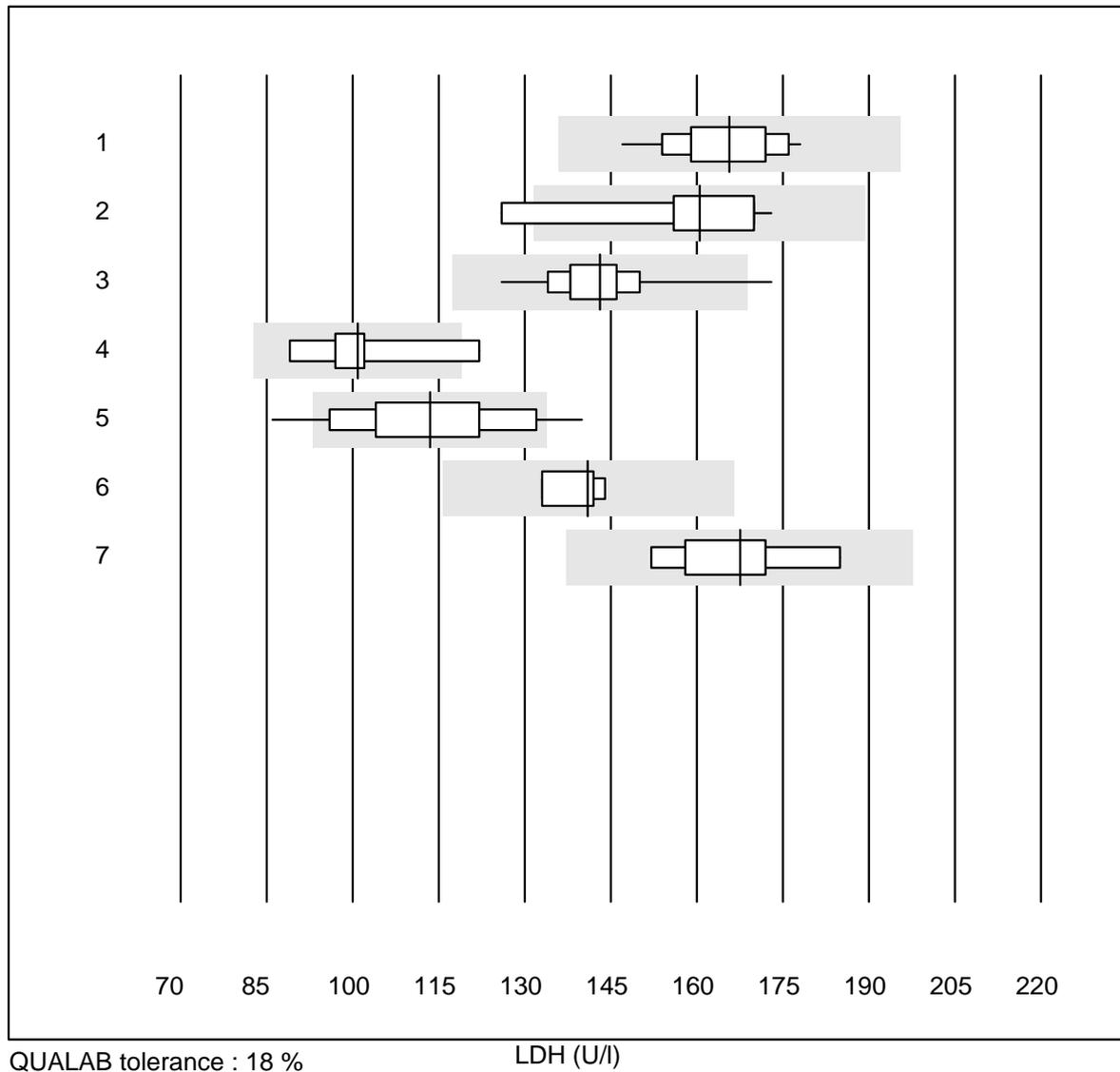
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	IFCC	37	100.0	0.0	0.0	166	4.8	e
2	Cobas	10	90.0	10.0	0.0	161	8.3	e*
3	Fuji Dri-Chem	144	95.8	1.4	2.8	143	5.2	e
4	Spotchem SP-4430	11	54.5	9.1	36.4	101	10.1	e*
5	Spotchem D-Concept	45	77.7	15.6	6.7	113	11.9	e
6	Piccolo	4	100.0	0.0	0.0	141	3.4	e
7	Autolyser/DiaSys	8	100.0	0.0	0.0	168	6.8	e*

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Magnesium
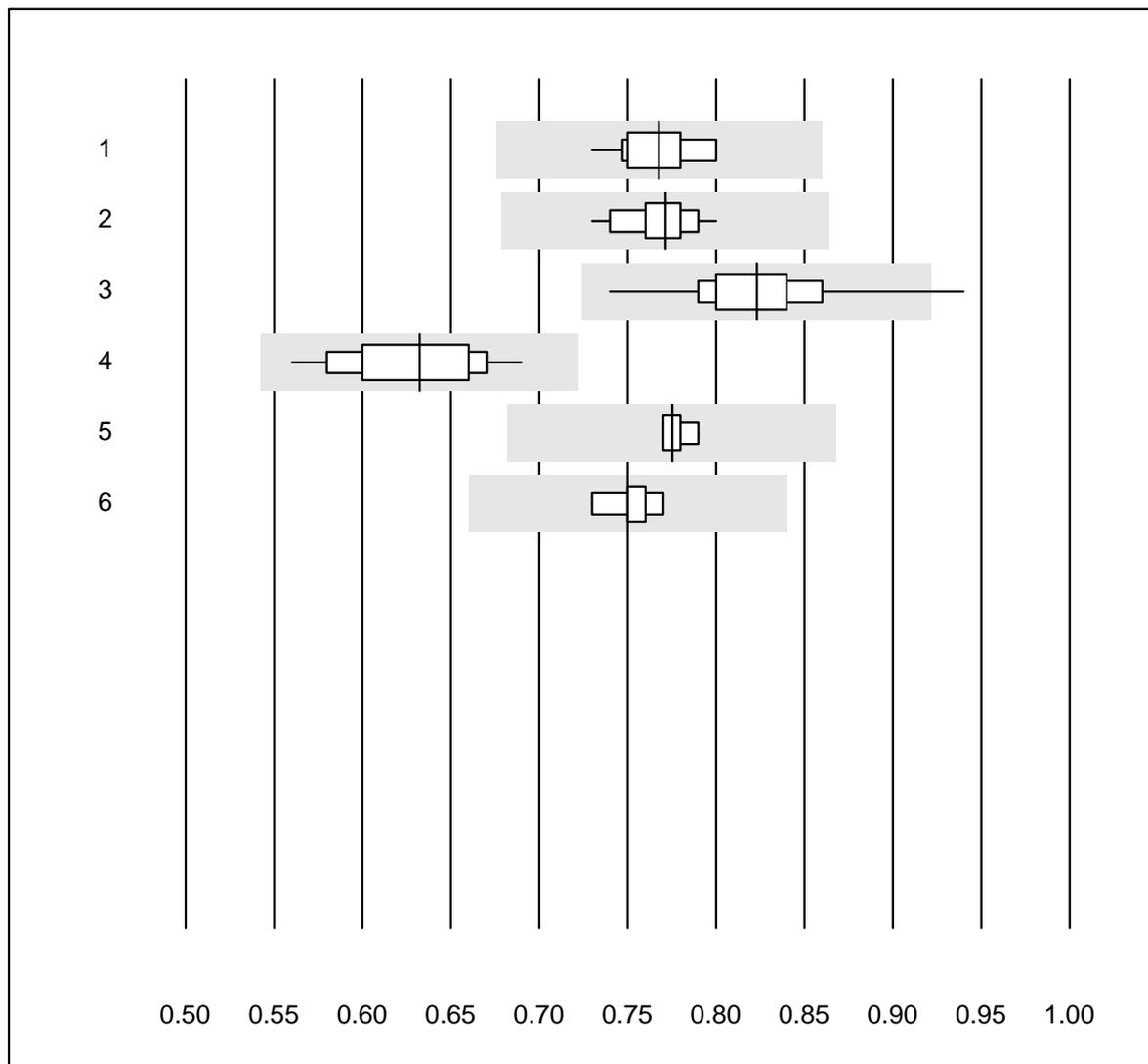
Magnesium (mmol/l)

QUALAB tolerance : 12 %
(< 0.70: +/- 0.09 mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	20	100.0	0.0	0.0	0.77	2.8	e
2	Cobas	16	100.0	0.0	0.0	0.77	2.4	e
3	Fuji Dri-Chem	103	98.0	1.0	1.0	0.82	3.6	e
4	Spotchem D-Concept	40	100.0	0.0	0.0	0.63	5.2	e
5	Beckman	4	100.0	0.0	0.0	0.78	1.2	e
6	Piccolo	5	100.0	0.0	0.0	0.75	2.0	e

6 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)
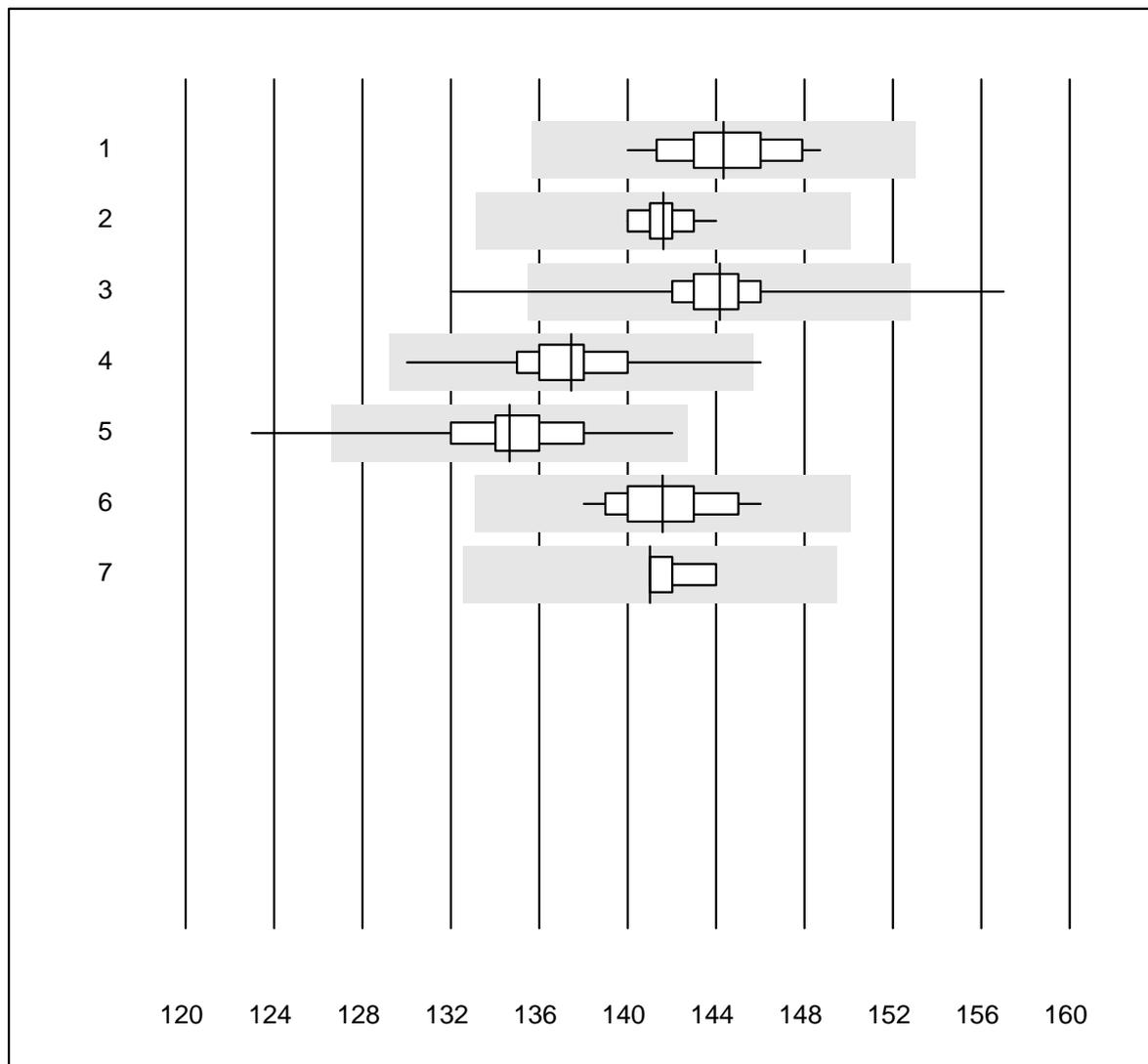
Sodium

QUALAB tolerance : 6 %

Sodium (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ISE	39	100.0	0.0	0.0	144	1.5	e
2	Cobas	25	100.0	0.0	0.0	142	0.7	e
3	Fuji Dri-Chem	936	97.7	0.9	1.4	144	1.5	e
4	Spotchem D-Concept	394	99.4	0.3	0.3	137	1.3	e
5	Spotchem EL-SE 1520	70	94.3	4.3	1.4	135	2.5	e
6	Piccolo	47	97.9	0.0	2.1	142	1.5	e
7	iStat Chem8	7	100.0	0.0	0.0	141	0.8	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Phosphate
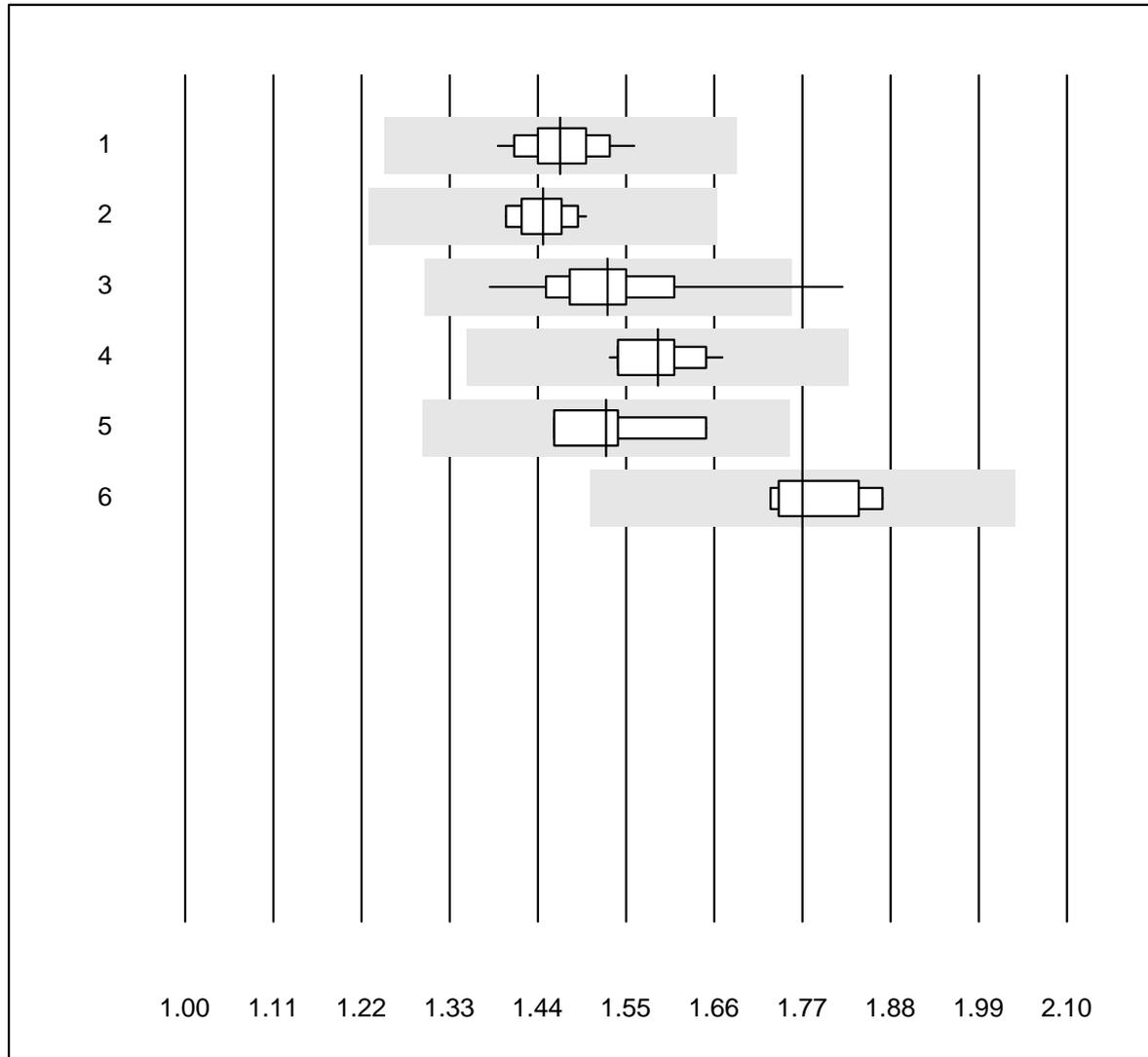
QUALAB tolerance : 15 %

Phosphate (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	23	95.7	0.0	4.3	1.5	3.2	e
2	Cobas	20	100.0	0.0	0.0	1.4	2.1	e
3	Fuji Dri-Chem	82	96.4	1.2	2.4	1.5	4.9	e
4	Spotchem D-Concept	15	100.0	0.0	0.0	1.6	2.7	e
5	Spotchem SP-4430	4	100.0	0.0	0.0	1.5	5.2	e*
6	Piccolo	9	100.0	0.0	0.0	1.8	3.1	e

7 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Protein total
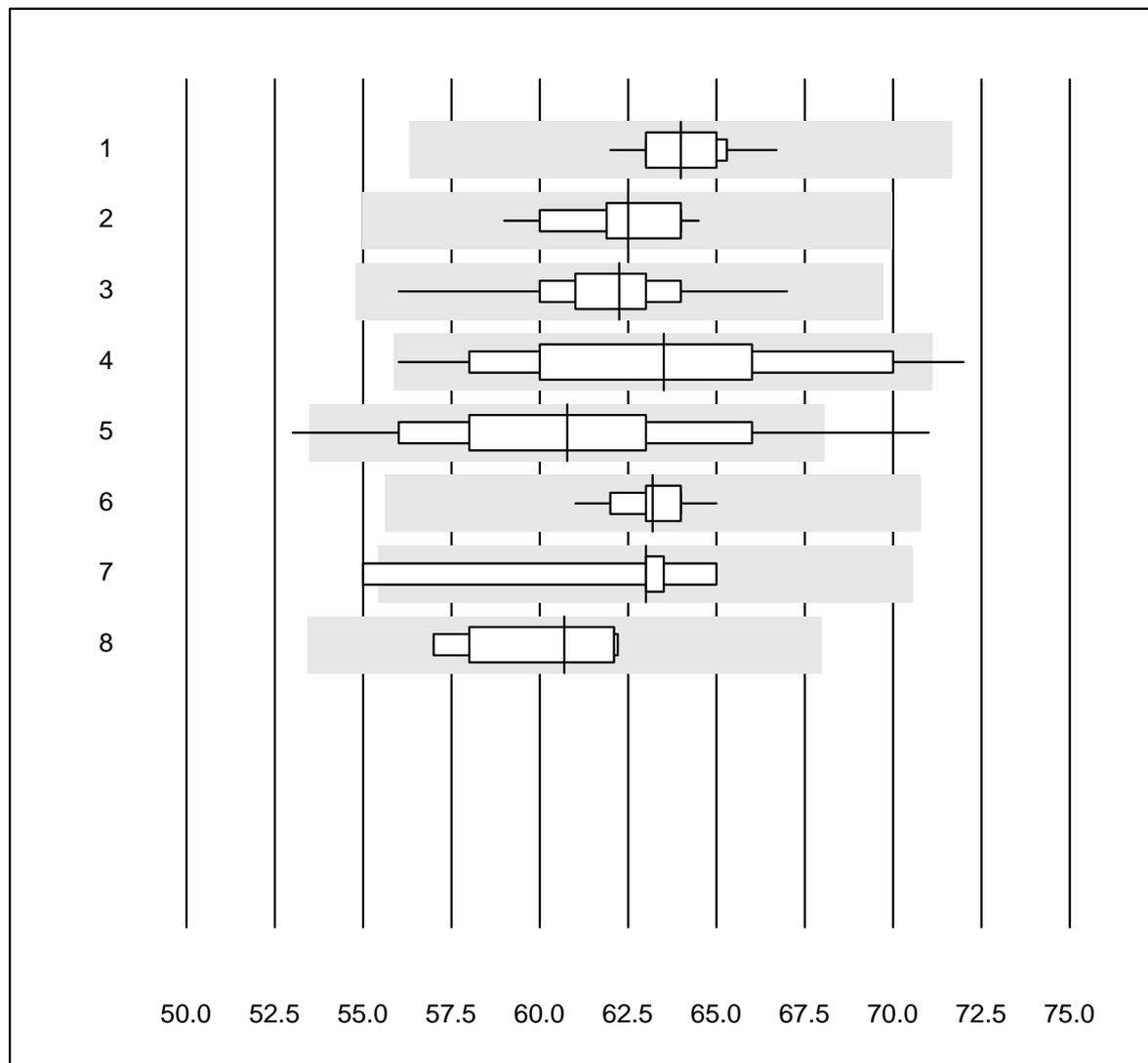
QUALAB tolerance : 12 %

Protein total (g/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	23	100.0	0.0	0.0	64.0	1.7	e
2	Cobas	20	100.0	0.0	0.0	62.5	2.4	e
3	Fuji Dri-Chem	187	98.9	0.0	1.1	62.3	2.8	e
4	Spotchem SP-4430	24	95.8	4.2	0.0	63.5	6.6	e
5	Spotchem D-Concept	147	95.2	3.4	1.4	60.8	6.1	e
6	Piccolo	49	98.0	0.0	2.0	63.2	1.3	e
7	Skyla	5	80.0	20.0	0.0	63.0	6.4	e*
8	Selectra Pro	7	100.0	0.0	0.0	60.7	3.4	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Aspartate aminotransferase
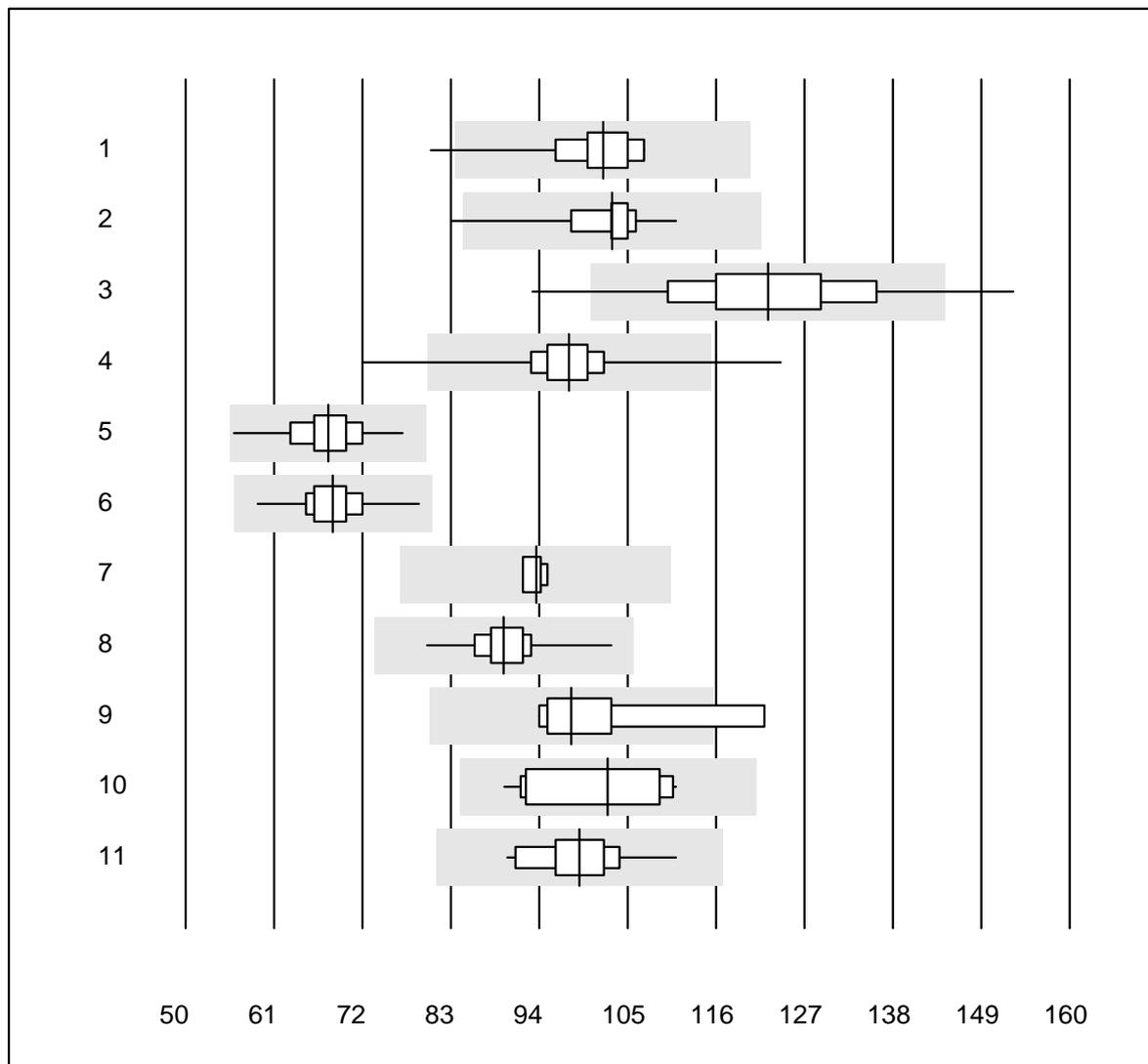
QUALAB tolerance : 18 %   Aspartate aminotransferase (U/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	IFCC with PP	27	96.3	3.7	0.0	102	5.5	e
2	Cobas	22	95.5	4.5	0.0	103	5.3	e
3	Reflotron	334	93.7	3.3	3.0	122	8.3	e
4	Fuji Dri-Chem	1051	98.1	0.8	1.1	98	4.4	e
5	Spotchem SP-4430	101	99.0	0.0	1.0	68	5.1	e
6	Spotchem D-Concept	472	99.6	0.0	0.4	68	4.2	e
7	IFCC without PP	4	100.0	0.0	0.0	94	1.4	e
8	Piccolo	77	100.0	0.0	0.0	90	3.9	e
9	Skyla	6	83.3	16.7	0.0	98	10.3	e*
10	Selectra Pro	15	93.3	0.0	6.7	103	7.7	e
11	Autolyser/DiaSys	20	100.0	0.0	0.0	99	5.0	e

One result was submitted but not published because the method group was too small. (<4 results per group)

Alanine aminotransferase
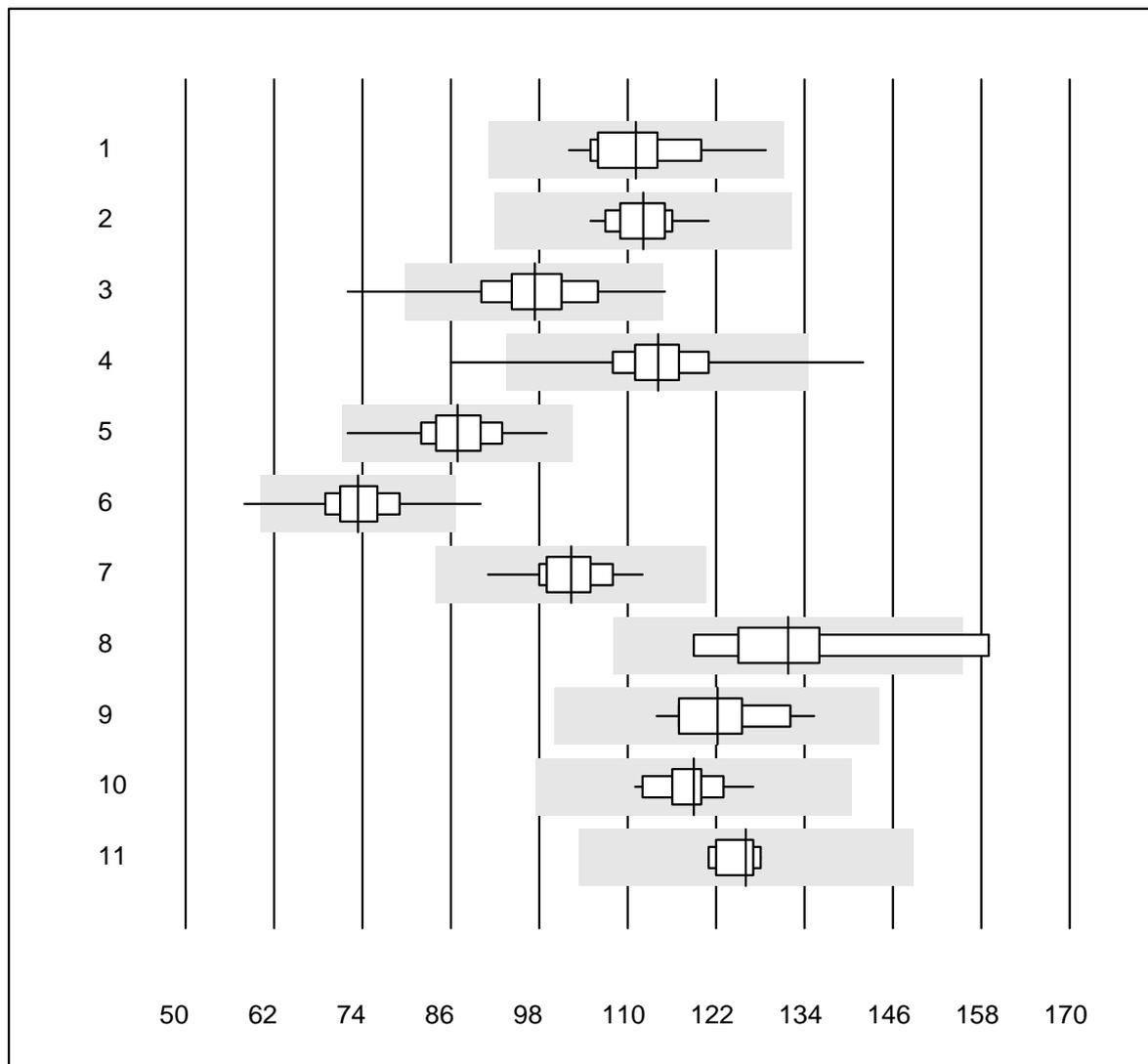
QUALAB tolerance : 18 %   Alanine aminotransferase (U/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	IFCC with PP	22	100.0	0.0	0.0	111	6.4	e
2	Cobas	26	100.0	0.0	0.0	112	3.5	e
3	Reflotron	341	94.2	2.9	2.9	97	7.0	e
4	Fuji Dri-Chem	1063	97.7	0.7	1.6	114	5.0	e
5	Spotchem SP-4430	102	100.0	0.0	0.0	87	5.6	e
6	Spotchem D-Concept	480	98.6	0.4	1.0	73	5.5	e
7	Piccolo	75	98.7	0.0	1.3	102	4.1	e
8	Skyla	6	83.3	16.7	0.0	132	10.3	e*
9	Selectra Pro	15	93.3	0.0	6.7	122	5.1	e
10	Autolyser/DiaSys	20	100.0	0.0	0.0	119	3.3	e
11	Other methods	5	100.0	0.0	0.0	126	2.5	e

One result was submitted but not published because the method group was too small. (<4 results per group)

Triglycerides

QUALAB tolerance : 18 %   Triglycerides (mmol/l)
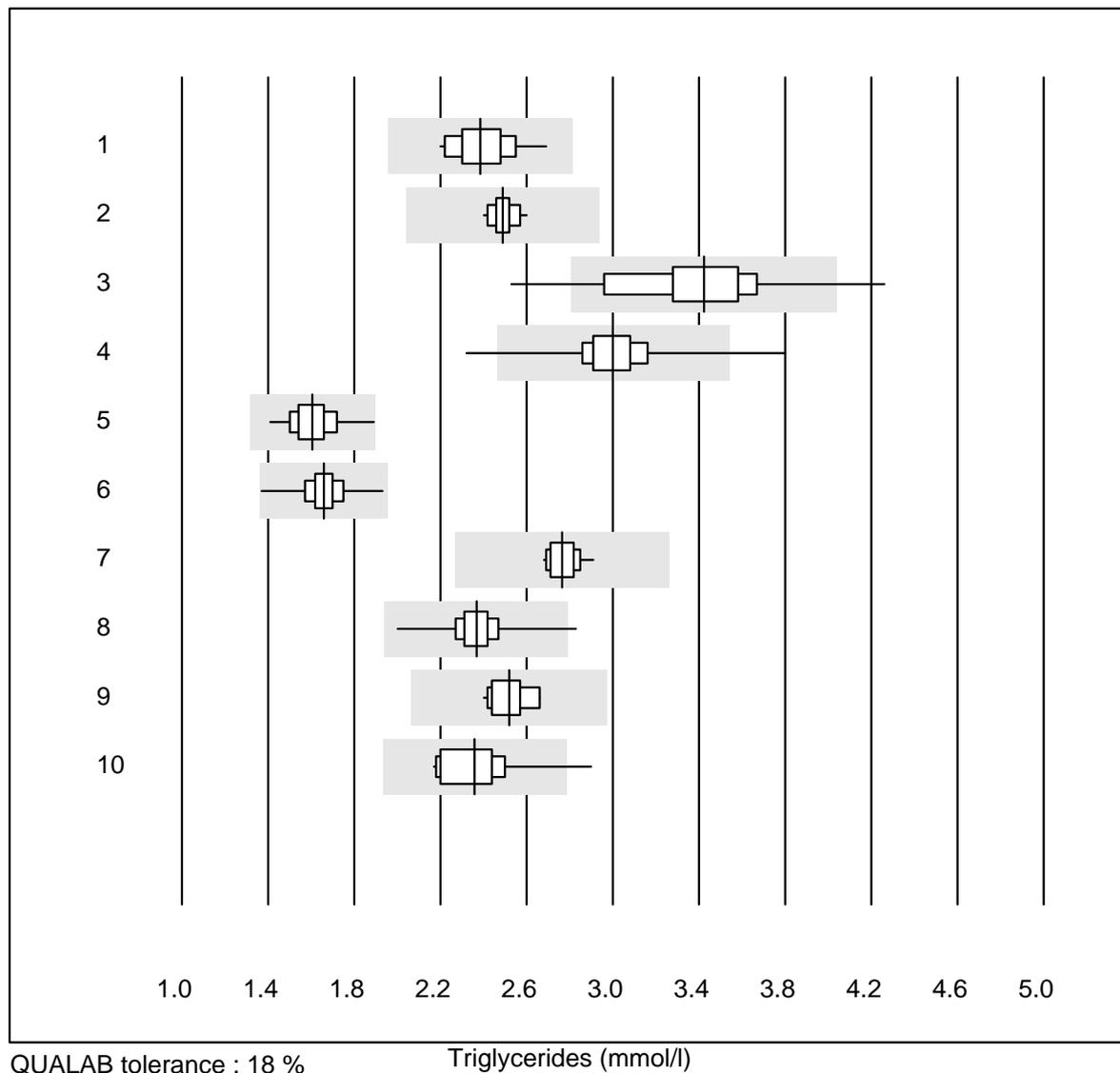
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	25	100.0	0.0	0.0	2.39	5.2	e
2	Cobas	23	100.0	0.0	0.0	2.49	2.2	e
3	Reflotron	53	86.8	7.5	5.7	3.42	9.1	e
4	Fuji Dri-Chem	898	98.4	0.3	1.3	3.00	4.2	e
5	Spotchem SP-4430	71	98.6	0.0	1.4	1.60	5.7	e
6	Spotchem D-Concept	397	96.7	0.0	3.3	1.66	4.3	e
7	Piccolo	30	96.7	0.0	3.3	2.76	2.3	e
8	Cholestech LDX	306	99.0	0.3	0.7	2.37	3.8	e
9	Selectra Pro	12	91.7	0.0	8.3	2.52	3.4	e
10	Autolyser/DiaSys	20	95.0	5.0	0.0	2.36	7.3	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Lithium
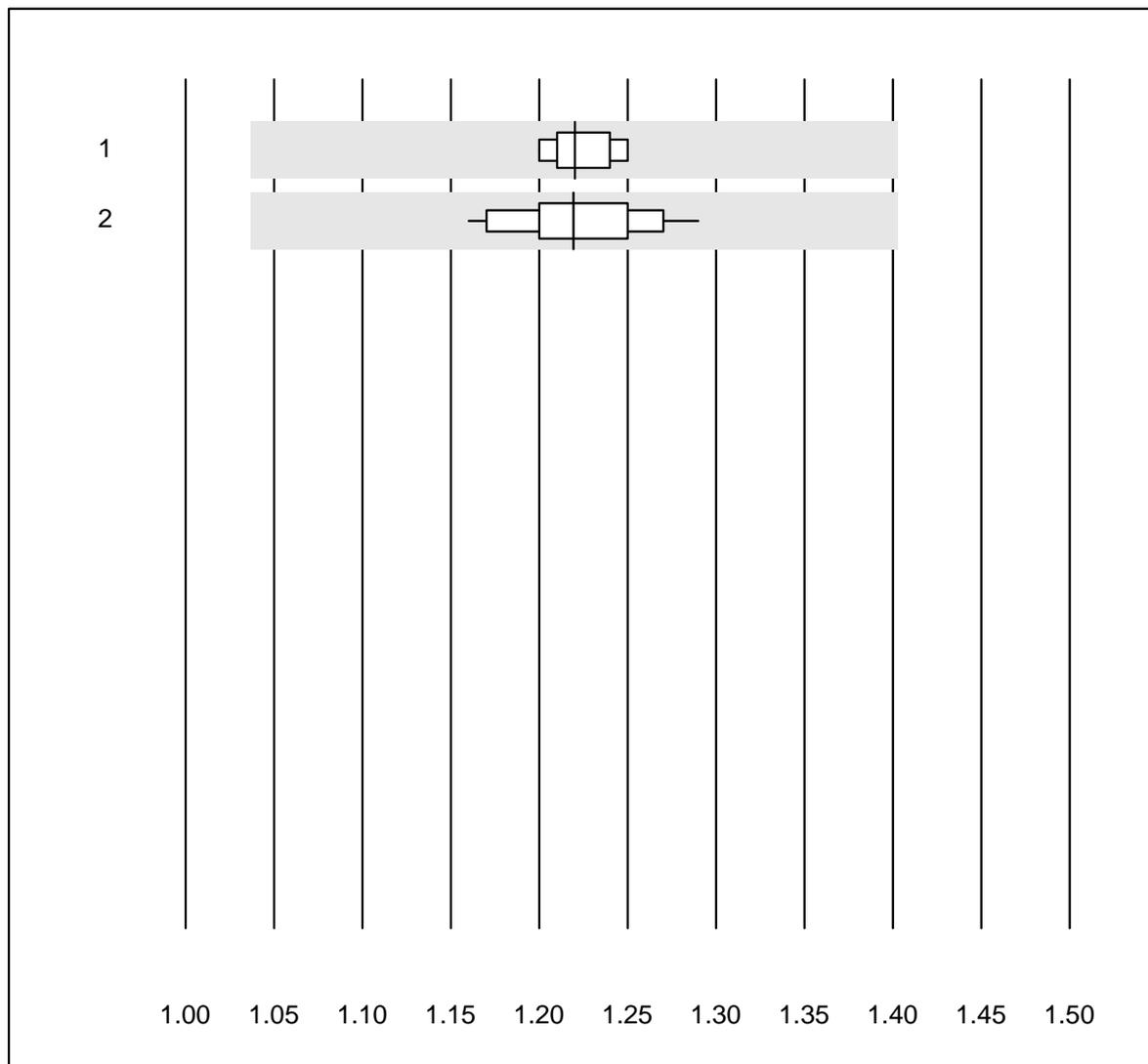
QUALAB tolerance : 15 %　　　　Lithium (mmol/l)

| No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas Integra 800/40	5	100.0	0.0	0.0	1.22	1.7	e
2	Other methods	18	100.0	0.0	0.0	1.22	3.0	e

Lactate

QUALAB tolerance : 18 %

Lactate (mmol/l)
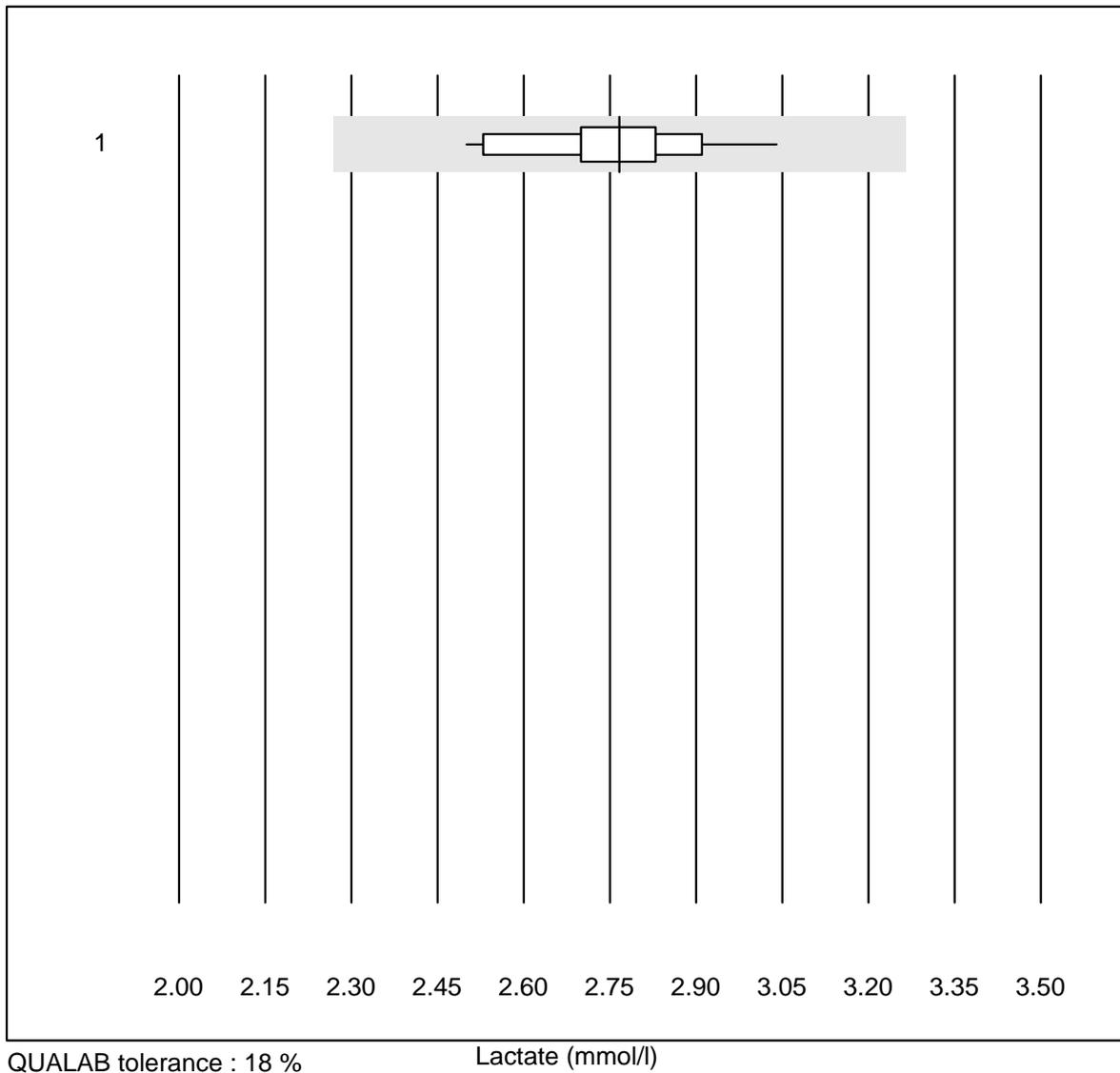
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	15	100.0	0.0	0.0	2.77	4.8	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

HbA1c sample A

QUALAB tolerance : 9 %   HbA1c sample A (%)
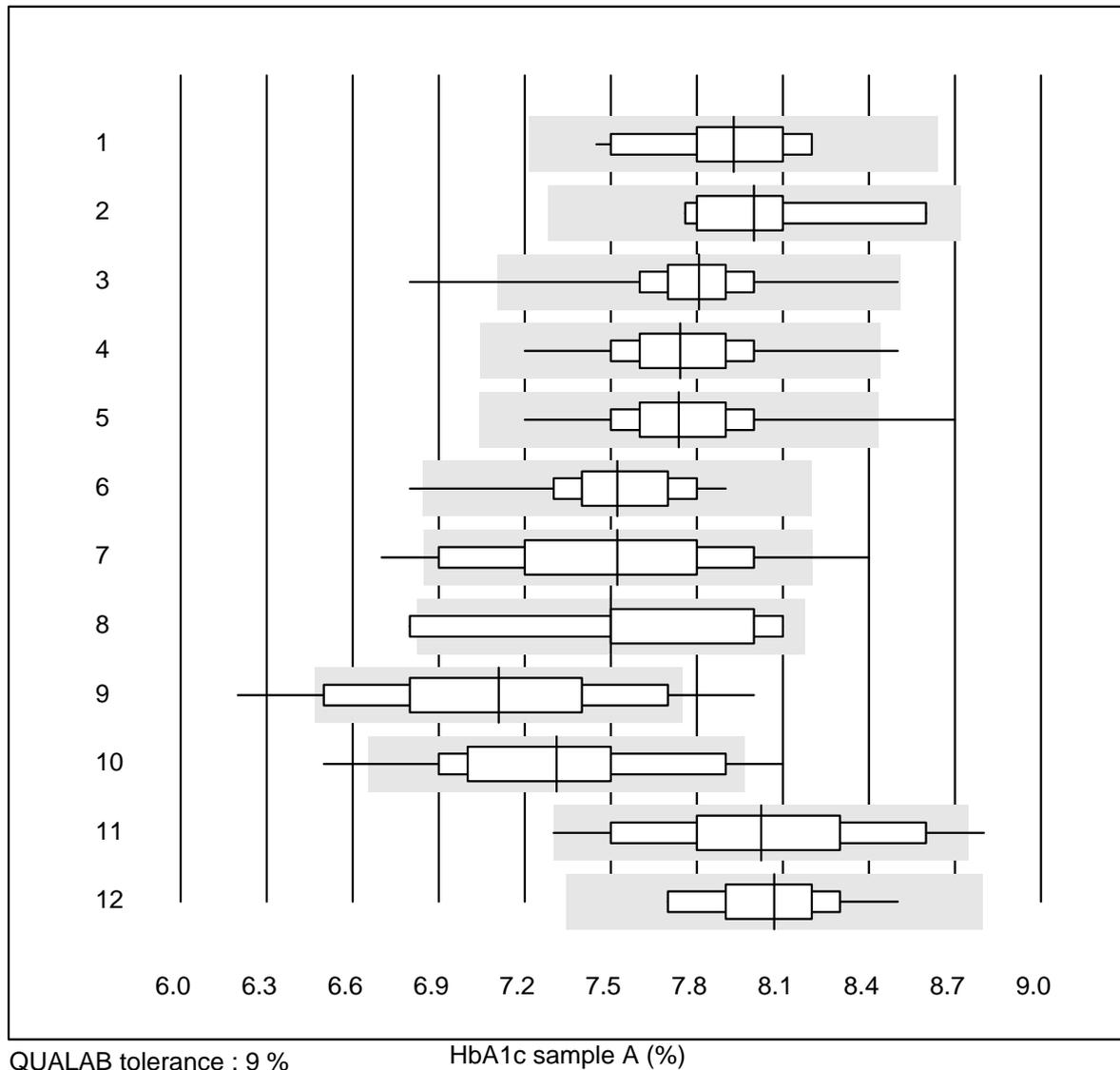
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Roche, Cobas	16	93.7	0.0	6.3	7.9	2.9	e
2	HPLC	8	100.0	0.0	0.0	8.0	3.6	e*
3	Afinion	554	98.5	0.4	1.1	7.8	2.5	e
4	Cobas b101	148	98.6	1.4	0.0	7.7	2.9	e
5	DCA2000/Vantage	144	96.5	0.7	2.8	7.7	2.7	e
6	Celltac chemi	22	95.5	4.5	0.0	7.5	3.5	e
7	NycoCard	14	78.6	14.3	7.1	7.5	6.2	e*
8	Eurolyser	10	80.0	10.0	10.0	7.5	5.8	e*
9	A1c Now	226	79.2	11.5	9.3	7.1	5.8	e
10	AFIAS	64	87.5	7.8	4.7	7.3	5.2	e
11	Others	26	84.6	7.7	7.7	8.0	4.9	e
12	Spinit	10	100.0	0.0	0.0	8.1	2.9	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

HbA1c sample B
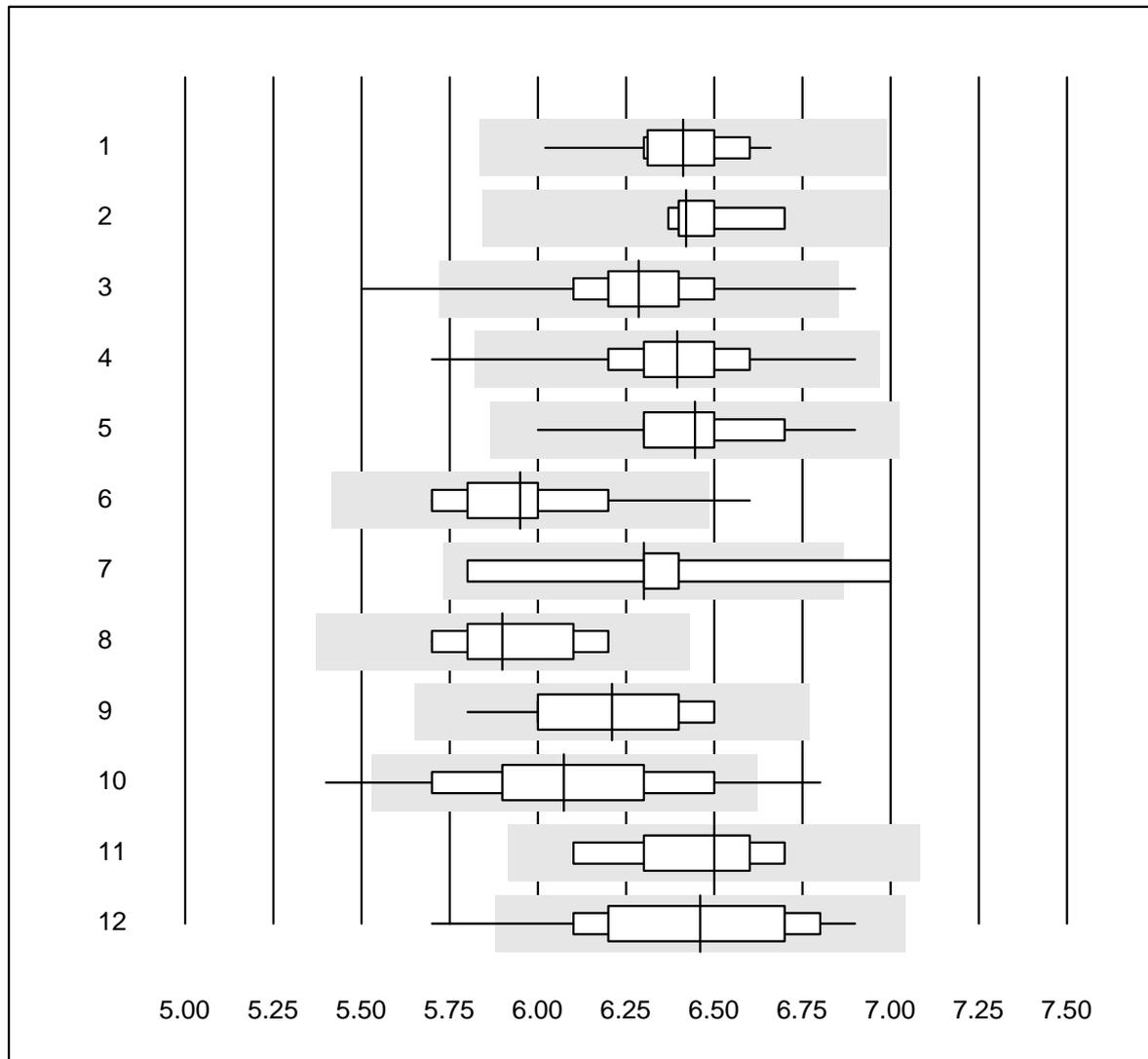

QUALAB tolerance : 9 %   HbA1c sample B (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Roche, Cobas	15	100.0	0.0	0.0	6.4	2.4	e
2	HPLC	8	100.0	0.0	0.0	6.4	1.8	e
3	Afinion	780	99.4	0.6	0.0	6.3	2.6	e
4	Cobas b101	167	99.4	0.6	0.0	6.4	2.8	e
5	DCA2000/Vantage	228	98.7	0.0	1.3	6.4	2.6	e
6	Celltac chemi	15	86.6	6.7	6.7	6.0	4.1	e
7	NycoCard	9	88.9	11.1	0.0	6.3	5.1	e*
8	Eurolyser	7	85.7	0.0	14.3	5.9	3.3	e*
9	A1c Now	11	100.0	0.0	0.0	6.2	3.8	e*
10	AFIAS	98	92.9	6.1	1.0	6.1	5.0	e
11	Spinit	7	100.0	0.0	0.0	6.5	3.1	e*
12	Others	21	90.4	4.8	4.8	6.5	4.7	e

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

pCO2

QUALAB tolerance : 12 %

pCO2 (kPa)
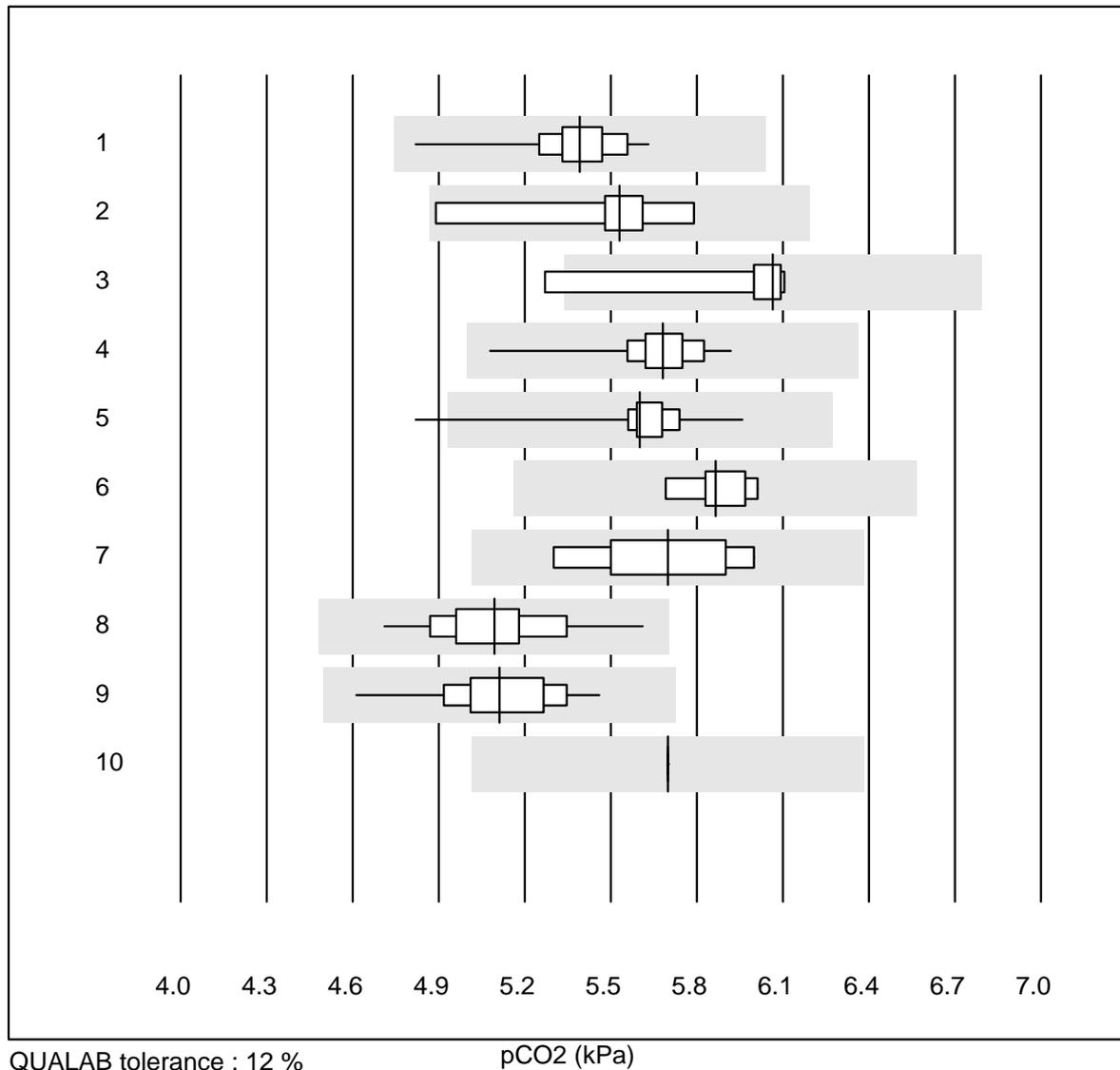
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ABL700/800	96	100.0	0.0	0.0	5.39	2.4	e
2	ABL80 FLEX	5	100.0	0.0	0.0	5.53	6.2	e*
3	ABL80 FLEX CO-OX / O	6	83.3	16.7	0.0	6.07	5.5	e*
4	ABL90 FLEX / PLUS	101	99.0	0.0	1.0	5.68	2.1	e
5	Cobas b 123	12	91.7	8.3	0.0	5.60	4.8	e
6	Cobas b 221	9	100.0	0.0	0.0	5.87	1.7	e
7	GEM	7	100.0	0.0	0.0	5.70	4.4	e*
8	iStat	41	100.0	0.0	0.0	5.09	3.7	e
9	EPOC	52	96.2	0.0	3.8	5.11	3.3	e
10	IL	4	100.0	0.0	0.0	5.70	0.0	e

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

pO2

QUALAB tolerance : 15 %

pO2 (kPa)
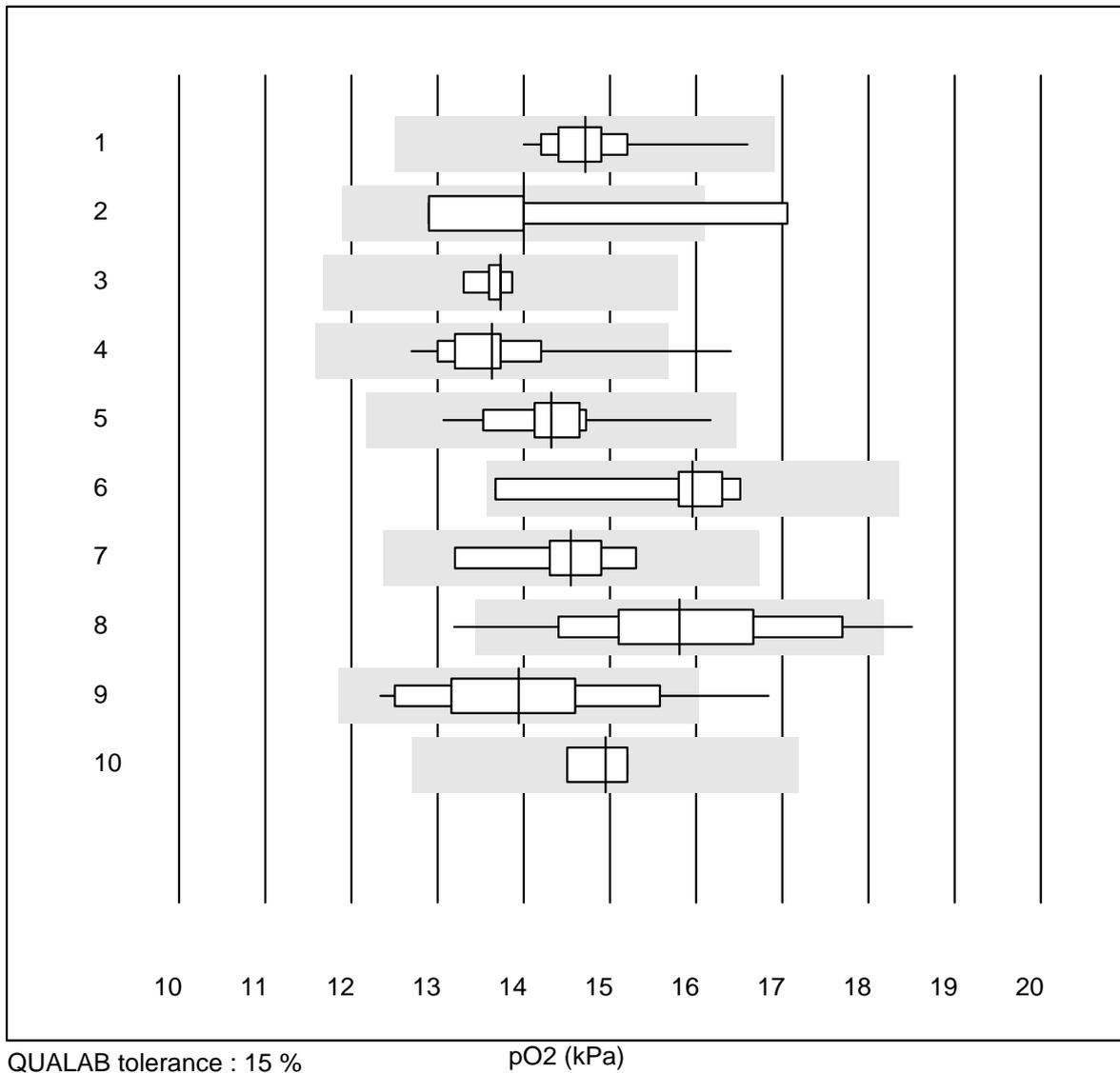
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ABL700/800	95	98.9	0.0	1.1	14.71	3.3	e
2	ABL80 FLEX	5	60.0	20.0	20.0	14.00	12.8	e*
3	ABL80 FLEX CO-OX / O	6	83.3	0.0	16.7	13.73	1.6	e
4	ABL90 FLEX / PLUS	102	92.2	2.9	4.9	13.63	5.2	e
5	Cobas b 123	14	92.9	0.0	7.1	14.32	5.1	e
6	Cobas b 221	6	100.0	0.0	0.0	15.96	6.6	e*
7	GEM	6	100.0	0.0	0.0	14.55	4.9	e*
8	iStat	39	92.3	7.7	0.0	15.80	7.8	e
9	EPOC	51	90.2	5.9	3.9	13.94	8.1	e
10	IL	4	100.0	0.0	0.0	14.95	2.4	e

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

pH

7.290 7.315 7.340 7.365 7.390 7.415 7.440 7.465 7.490 7.515 7.540
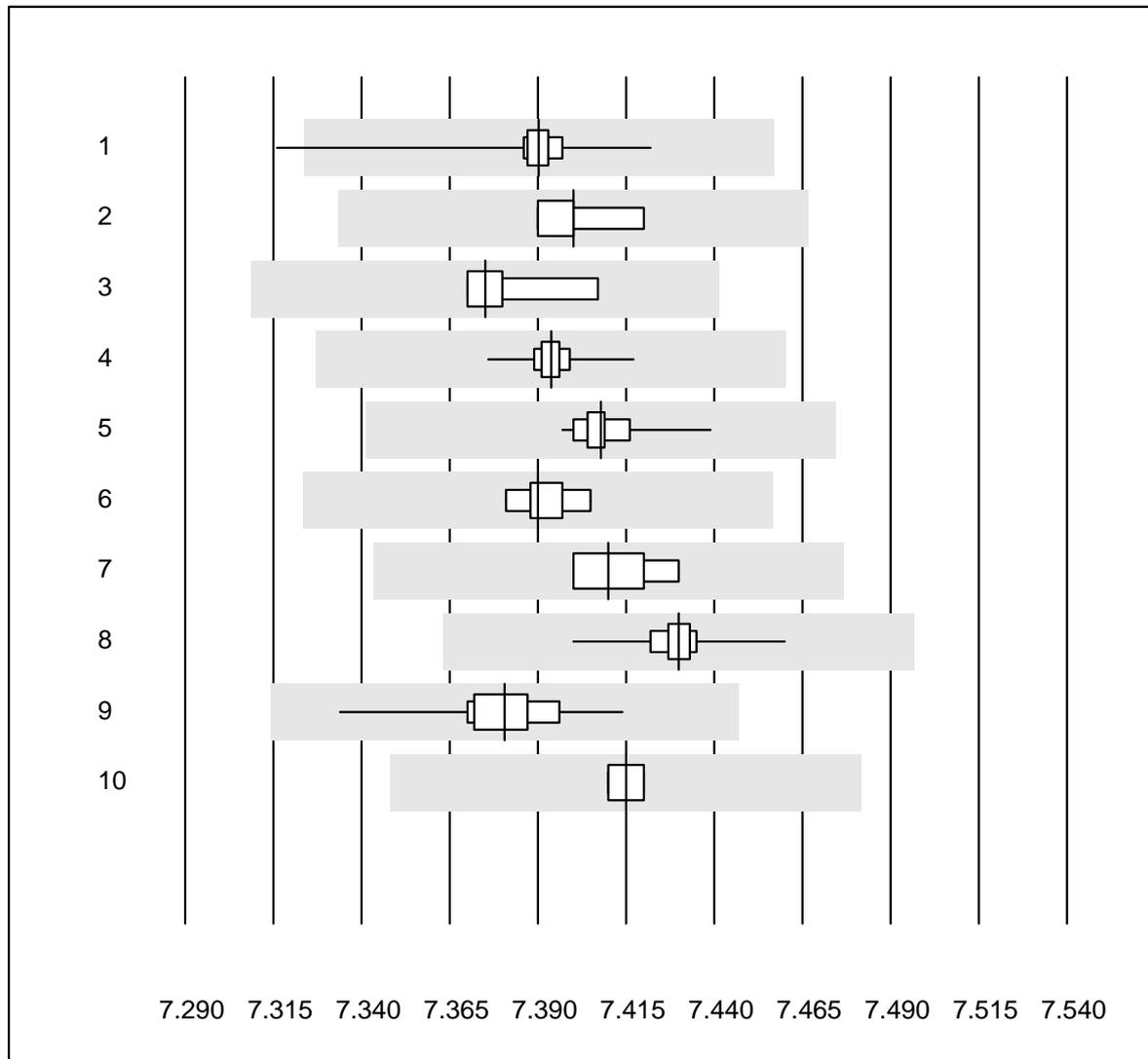
QUALAB tolerance : 1 %   pH ()

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ABL700/800	95	98.9	1.1	0.0	7.39	0.1	e
2	ABL80 FLEX	5	100.0	0.0	0.0	7.40	0.2	e
3	ABL80 FLEX CO-OX / O	6	100.0	0.0	0.0	7.38	0.2	e
4	ABL90 FLEX / PLUS	102	100.0	0.0	0.0	7.39	0.1	e
5	Cobas b 123	13	100.0	0.0	0.0	7.41	0.1	e
6	Cobas b 221	9	100.0	0.0	0.0	7.39	0.1	e
7	GEM	7	100.0	0.0	0.0	7.41	0.1	e
8	iStat	42	100.0	0.0	0.0	7.43	0.1	e
9	EPOC	51	100.0	0.0	0.0	7.38	0.2	e
10	IL	4	100.0	0.0	0.0	7.42	0.1	e

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Glucose BG
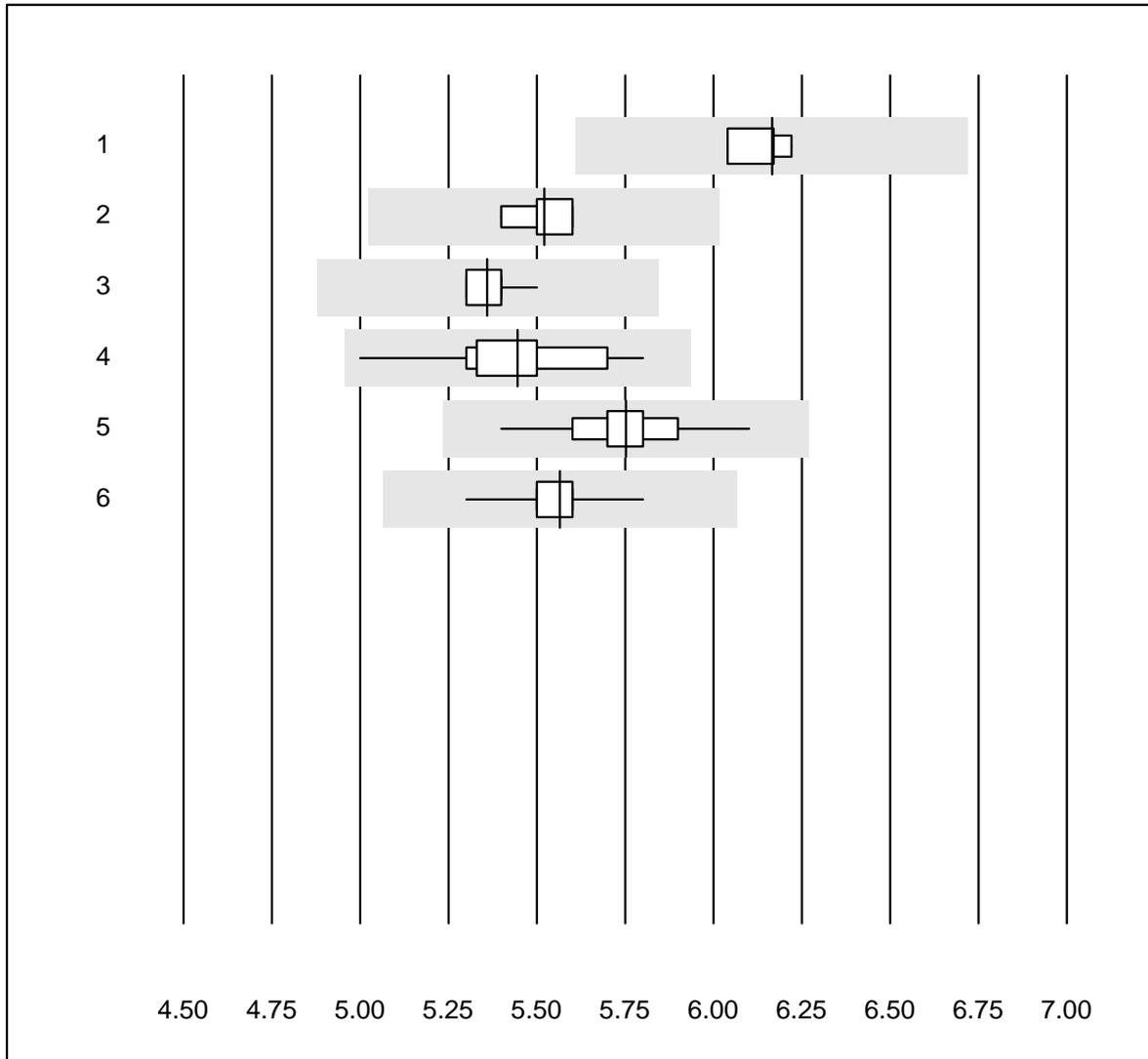
QUALAB tolerance : 9 %   Glucose BG (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas b 221	4	100.0	0.0	0.0	6.2	1.2	e
2	Cobas b 123	10	100.0	0.0	0.0	5.5	1.1	e
3	iStat	10	100.0	0.0	0.0	5.4	1.3	e
4	EPOC	40	95.0	0.0	5.0	5.4	3.2	e
5	ABL700/800	87	100.0	0.0	0.0	5.8	2.2	e
6	ABL90 FLEX / PLUS	91	100.0	0.0	0.0	5.6	1.6	e

7 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Hemoglobin BG

QUALAB tolerance : 9 %   Hemoglobin BG (g/l)
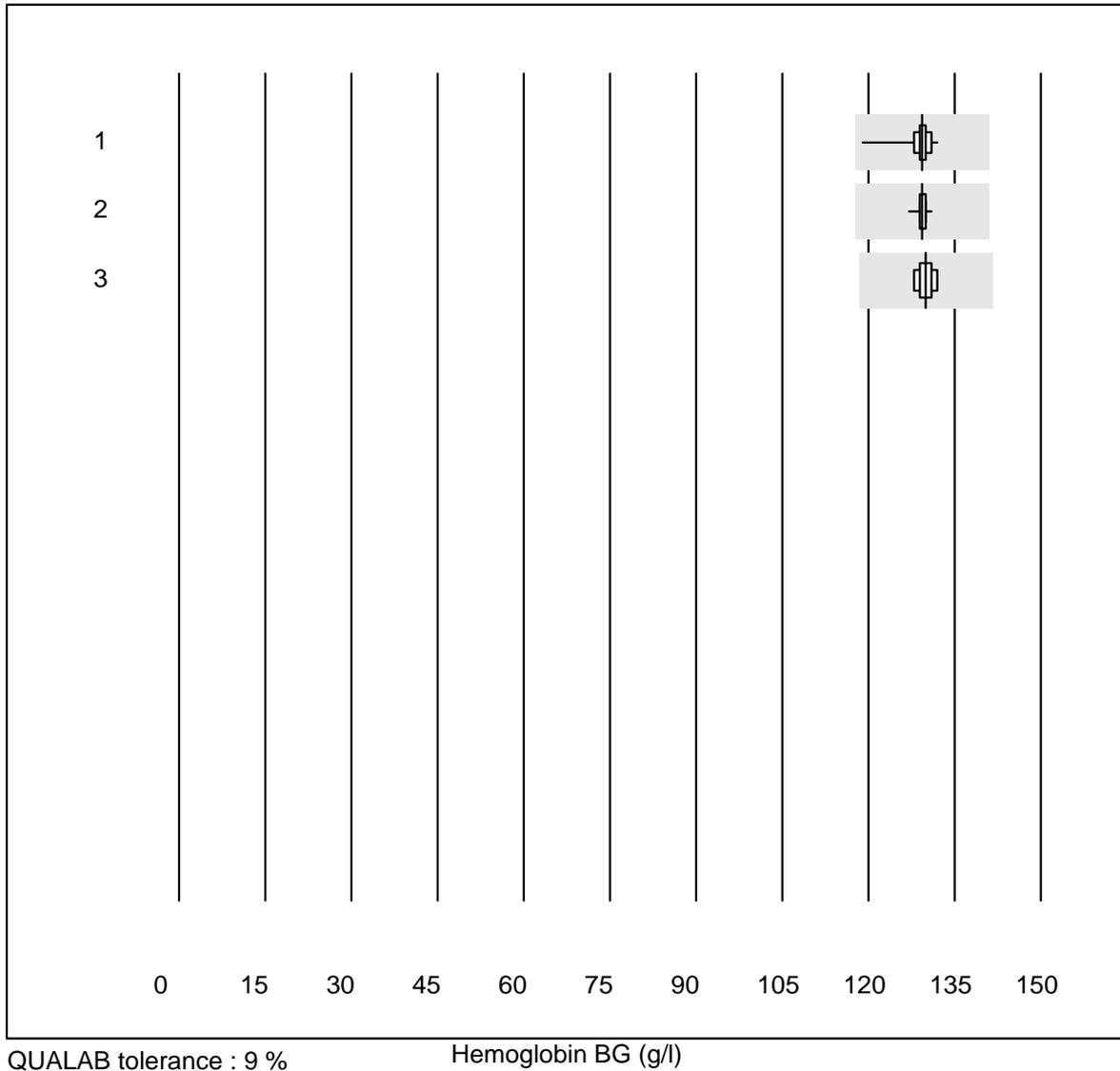
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ABL700/800	86	98.8	0.0	1.2	129.4	1.8	e
2	ABL90 FLEX / PLUS	88	96.6	0.0	3.4	129.4	0.5	e
3	ABL80 FLEX CO-OX / O	5	100.0	0.0	0.0	130.0	1.2	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

# Potassium BG
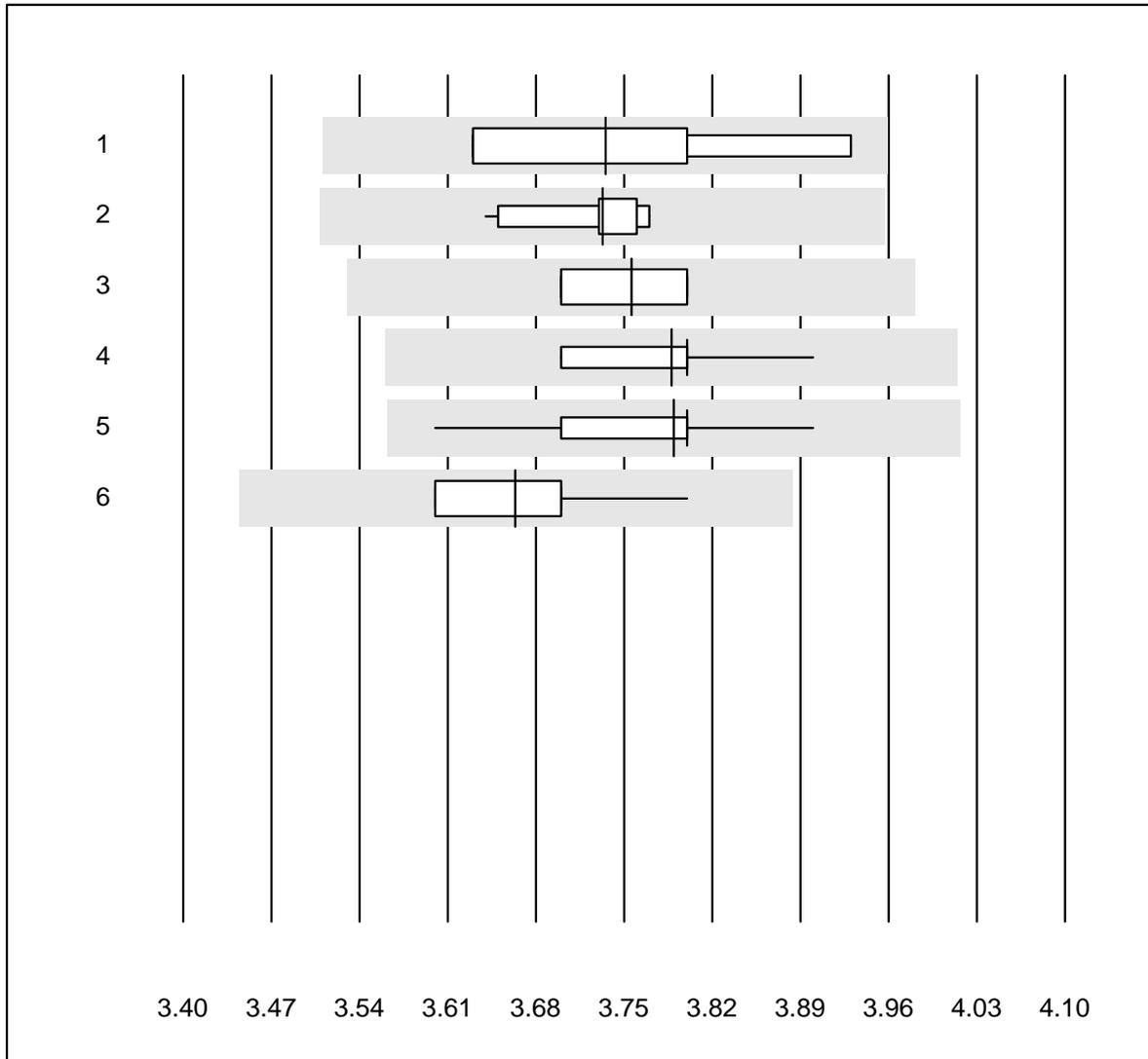
QUALAB tolerance : 6 %   Potassium BG (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas b 221	4	100.0	0.0	0.0	3.7	3.6	e*
2	Cobas b 123	17	100.0	0.0	0.0	3.7	1.1	e
3	iStat	18	100.0	0.0	0.0	3.8	1.4	e
4	EPOC	45	100.0	0.0	0.0	3.8	1.0	e
5	ABL700/800	88	97.7	0.0	2.3	3.8	1.2	e
6	ABL90 FLEX / PLUS	100	100.0	0.0	0.0	3.7	1.6	e

9 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Sodium BG

QUALAB tolerance : 6 %

Sodium BG (mmol/l)
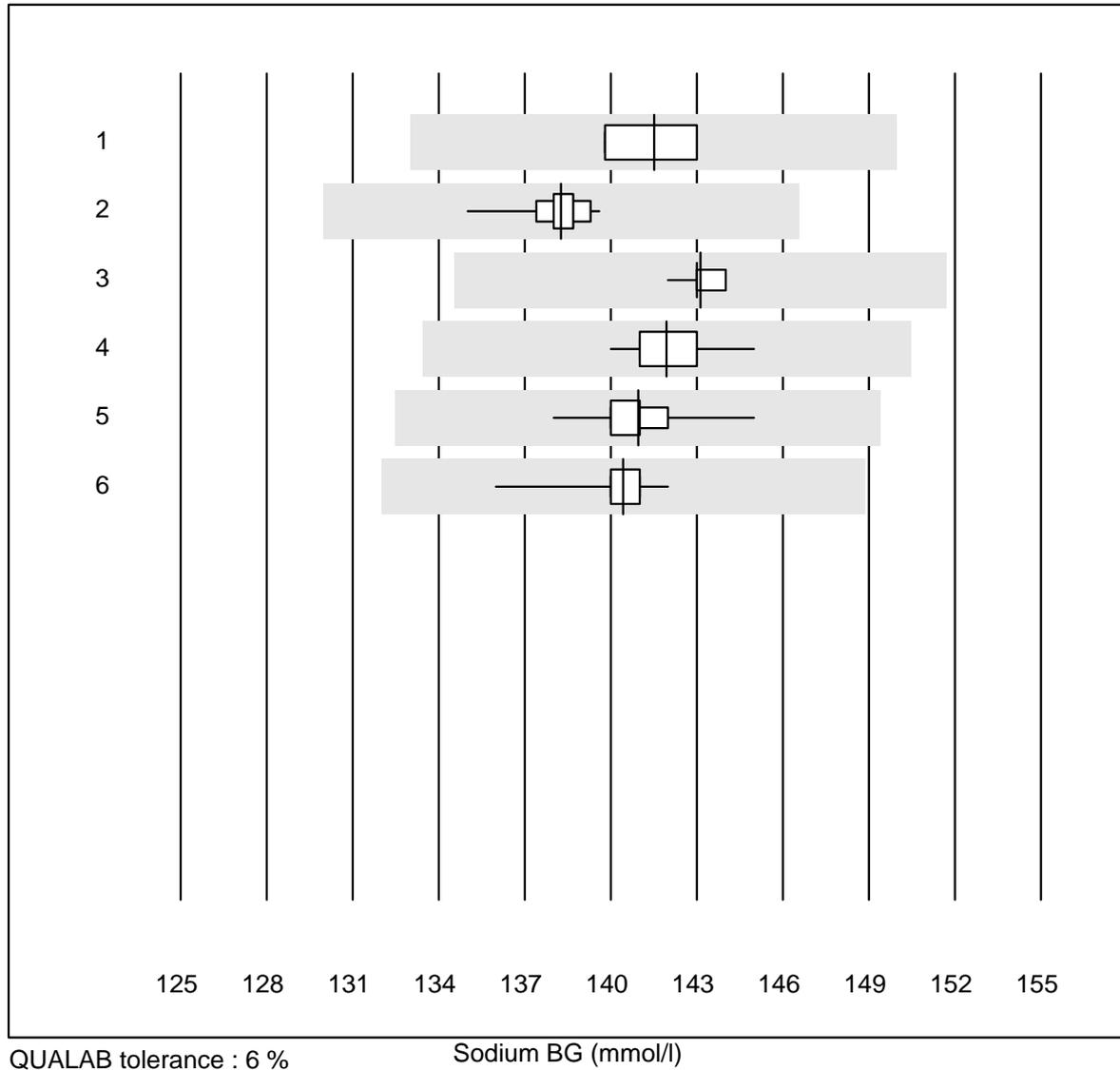
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas b 221	4	100.0	0.0	0.0	141.5	1.3	e
2	Cobas b 123	17	100.0	0.0	0.0	138.3	0.7	e
3	iStat	18	94.4	0.0	5.6	143.1	0.3	e
4	EPOC	43	100.0	0.0	0.0	142.0	0.8	e
5	ABL700/800	86	100.0	0.0	0.0	141.0	0.8	e
6	ABL90 FLEX / PLUS	99	100.0	0.0	0.0	140.4	0.5	e

7 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Chlorid-BG

QUALAB tolerance : 6 %

Chlorid-BG (mmol/l)
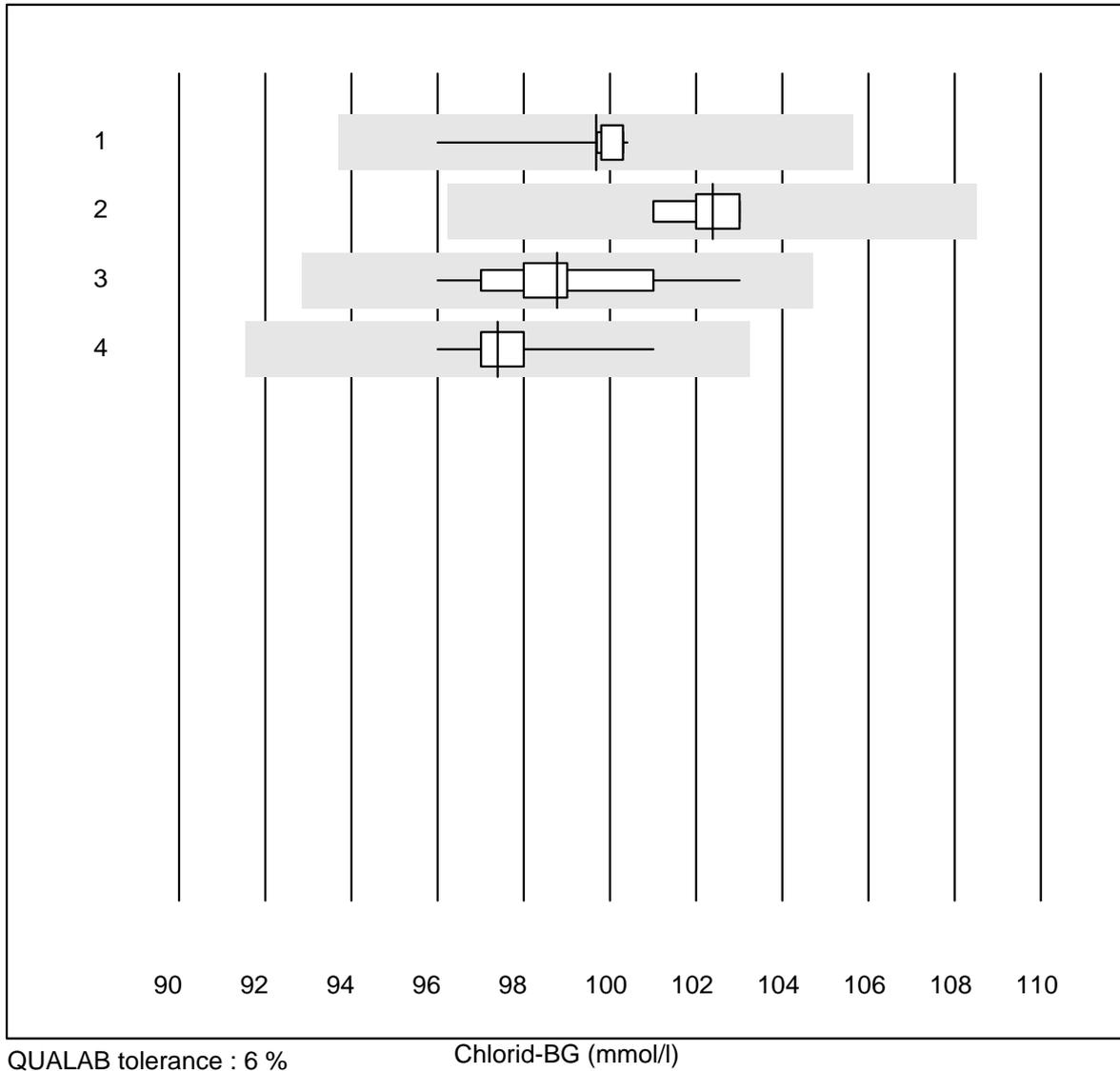
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas b 123	11	100.0	0.0	0.0	99.7	1.2	e
2	EPOC	13	100.0	0.0	0.0	102.4	0.8	e
3	ABL700/800	79	100.0	0.0	0.0	98.8	1.3	e
4	ABL90 FLEX / PLUS	91	100.0	0.0	0.0	97.4	0.7	e

6 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Calcium-BG
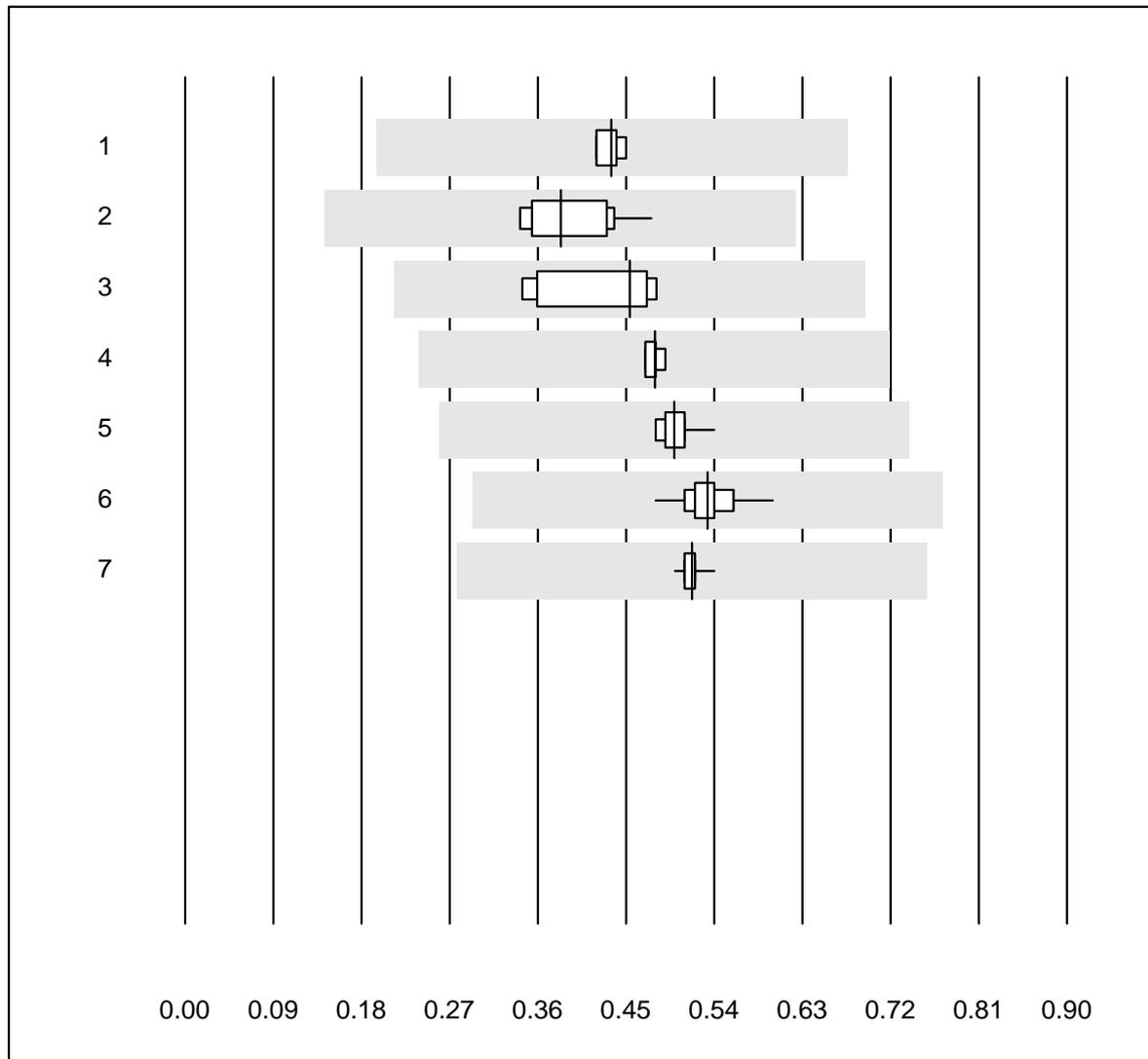
Calcium-BG (mmol/l)

MQ tolerance : 12 %
(< 2.00: +/- 0.24 mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	GEM	4	100.0	0.0	0.0	0.44	3.0	e*
2	Cobas b123	10	100.0	0.0	0.0	0.38	12.1	e*
3	Cobas	7	100.0	0.0	0.0	0.45	12.9	e*
4	iStat	12	100.0	0.0	0.0	0.48	1.4	e
5	EPOC	40	97.5	0.0	2.5	0.50	2.9	e
6	ABL700/800	88	100.0	0.0	0.0	0.53	3.7	e
7	ABL90 FLEX / PLUS	98	99.0	0.0	1.0	0.52	1.2	e

6 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

FHHb


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           2.40    2.56    2.72    2.88    3.04    3.20    3.36    3.52    3.68    3.84    4.00
```
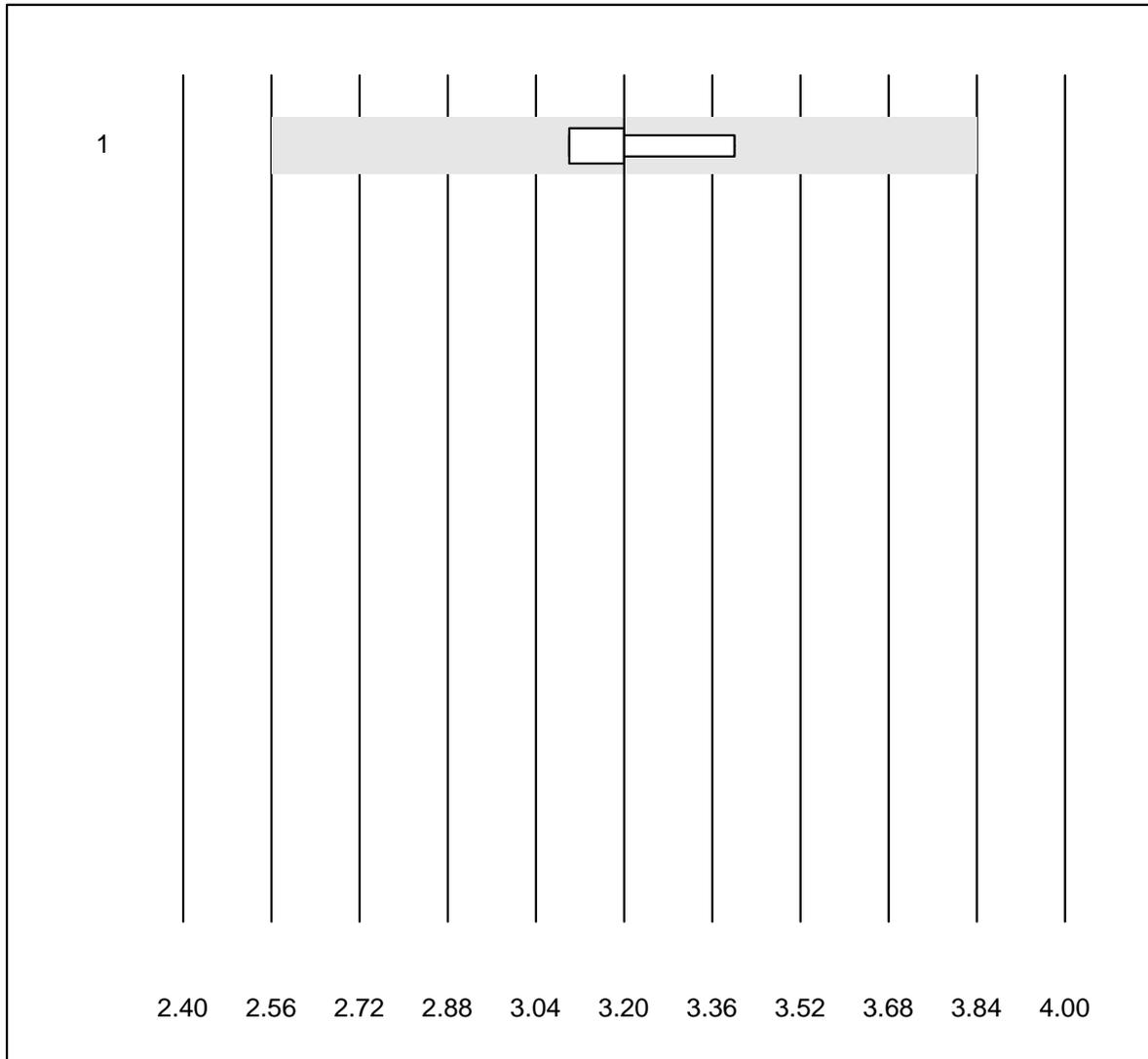
MQ tolerance : 20 %   FHHb (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ABL90 FLEX / PLUS	4	100.0	0.0	0.0	3.200	3.9	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Lactate-BG

QUALAB tolerance : 18 %   Lactate-BG (mmol/l)
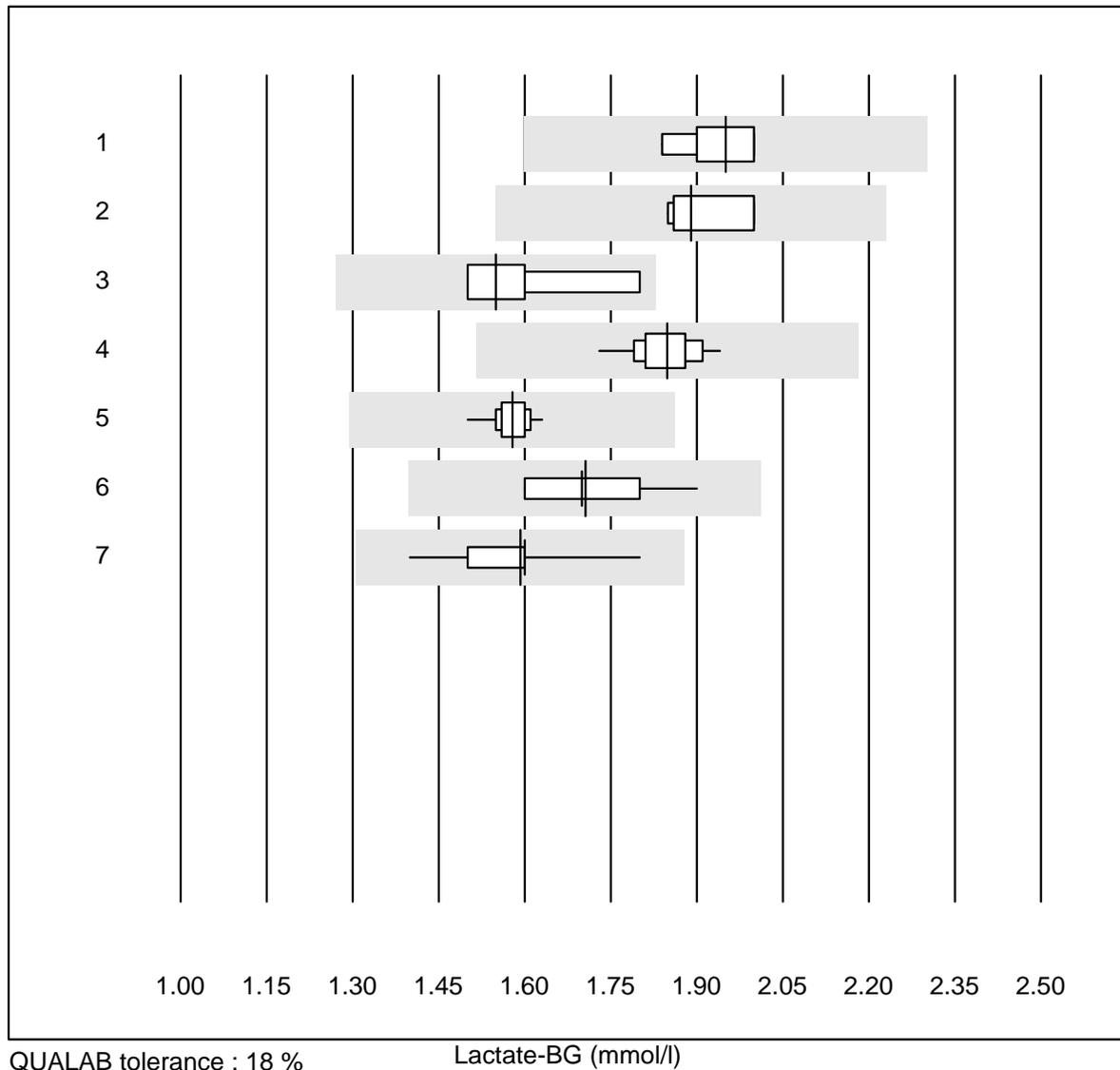
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas b123	8	100.0	0.0	0.0	1.95	3.3	e
2	Cobas	6	100.0	0.0	0.0	1.89	3.6	e
3	IL	4	100.0	0.0	0.0	1.55	8.8	e*
4	EPOC	39	100.0	0.0	0.0	1.85	2.6	e
5	iStat	12	100.0	0.0	0.0	1.58	2.1	e
6	ABL700/800	88	100.0	0.0	0.0	1.71	3.1	e
7	ABL90 FLEX / PLUS	95	100.0	0.0	0.0	1.59	3.5	e

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

sO2 OR

MQ tolerance : 20 %   sO2 OR (%)
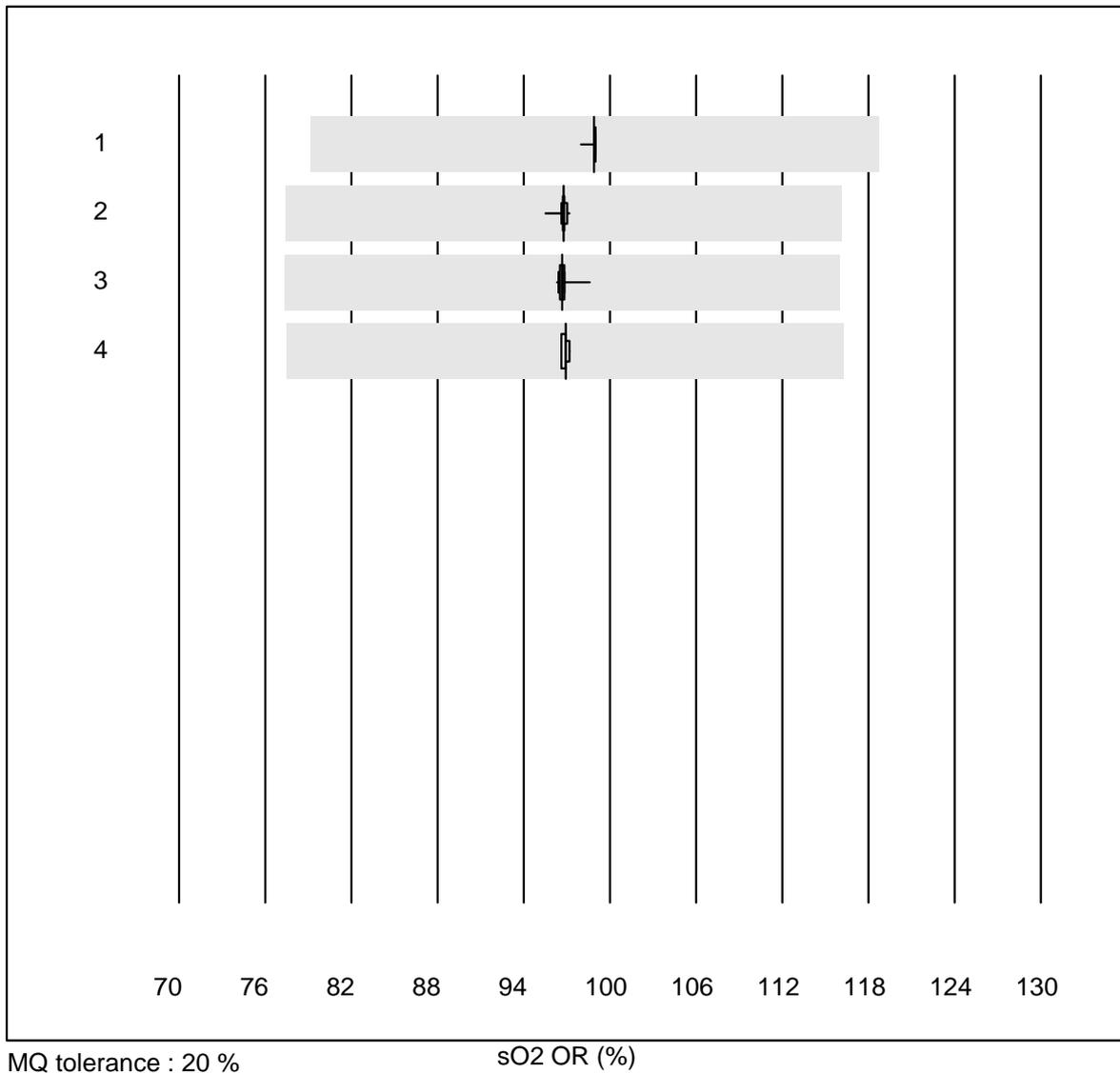
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	iStat	11	100.0	0.0	0.0	98.909	0.3	e
2	ABL700/800	76	100.0	0.0	0.0	96.759	0.2	e
3	ABL90 FLEX / PLUS	80	100.0	0.0	0.0	96.674	0.3	e
4	ABL80 FLEX CO-OX / O	4	100.0	0.0	0.0	96.900	0.3	e

FO2Hb OR
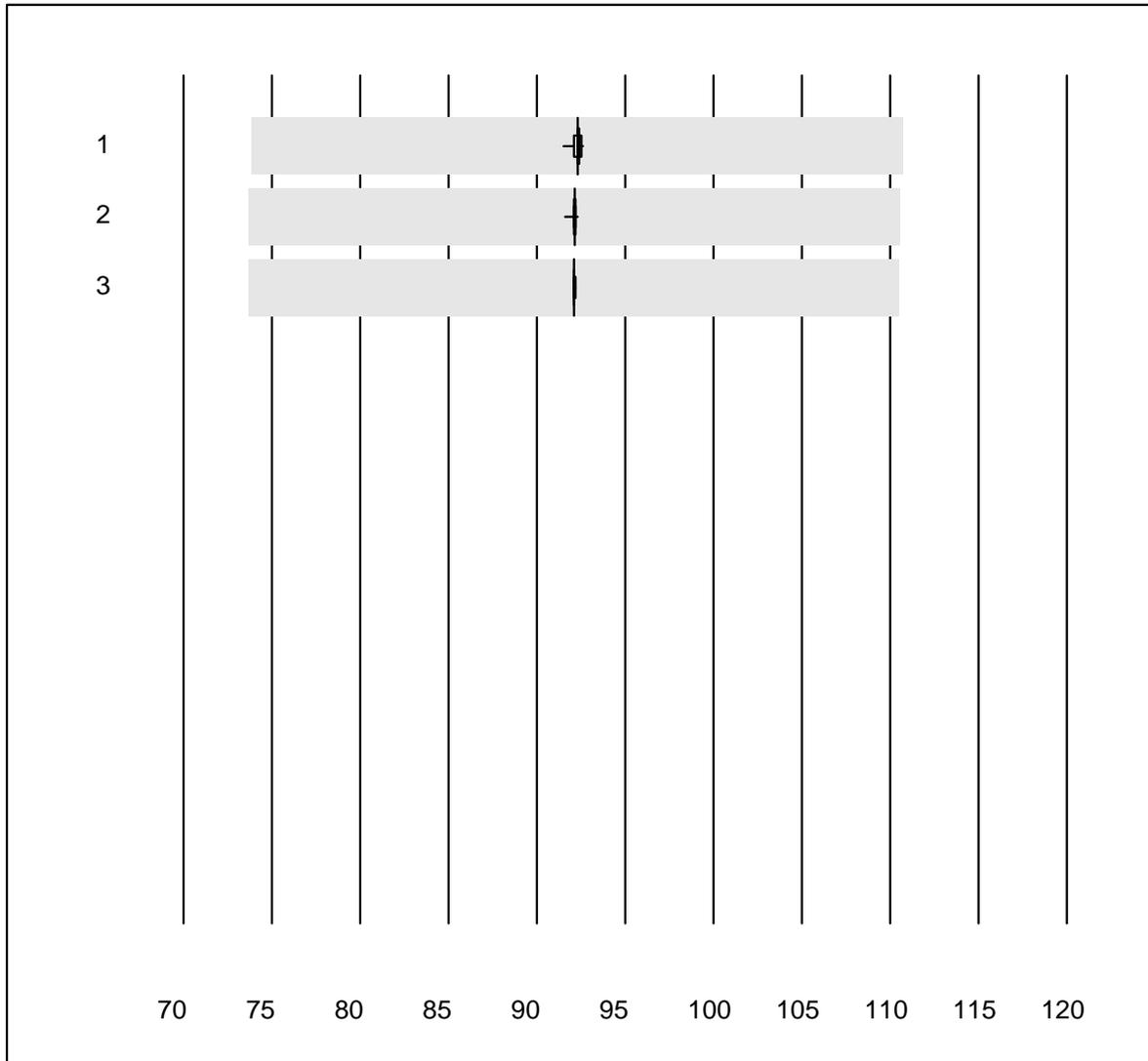
MQ tolerance : 20 %

FO2Hb OR (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ABL700/800	75	100.0	0.0	0.0	92.309	0.2	e
2	ABL90 FLEX / PLUS	80	100.0	0.0	0.0	92.145	0.1	e
3	ABL80 FLEX CO-OX / O	5	100.0	0.0	0.0	92.100	0.0	e

FCOHb OR
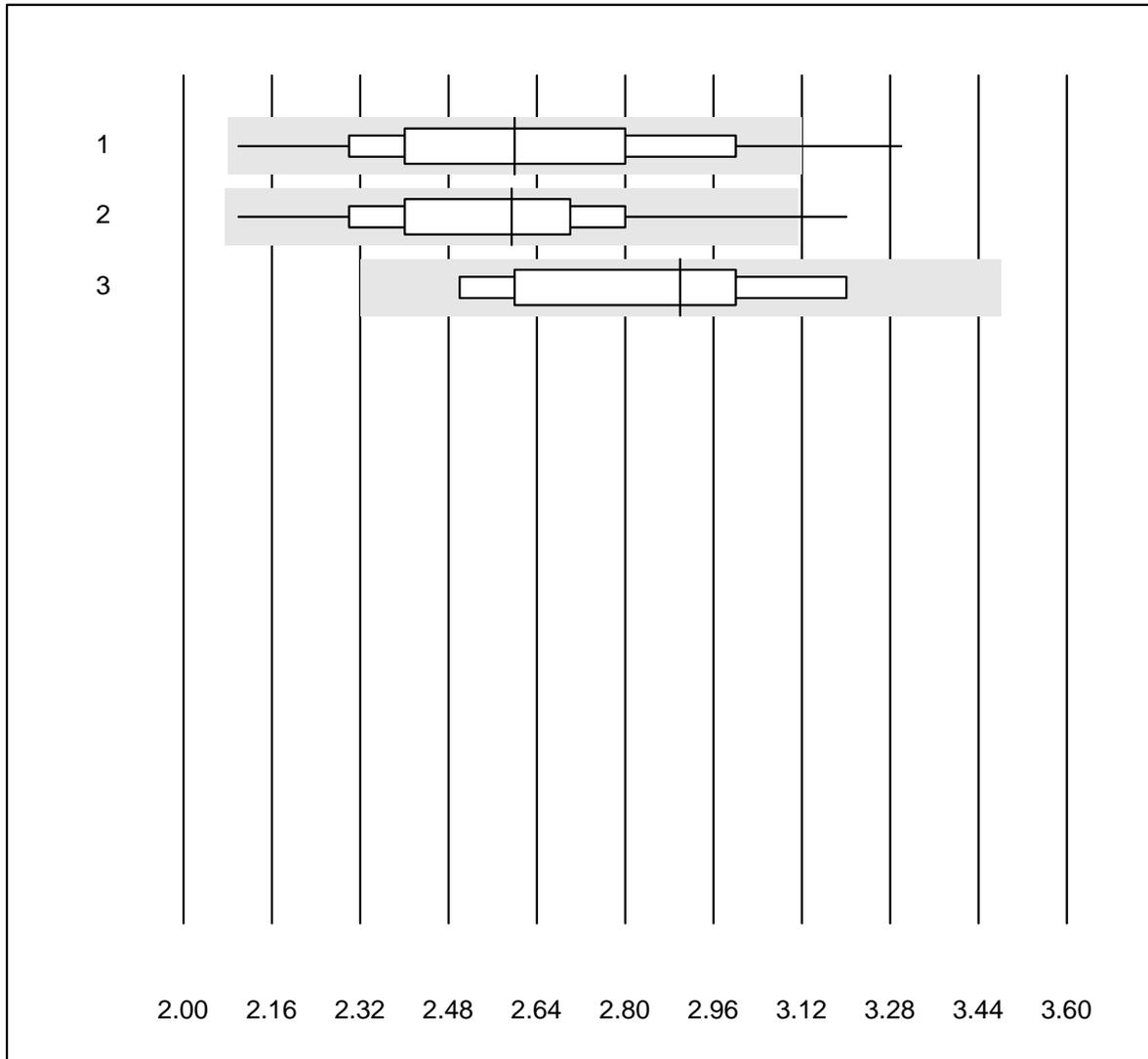
MQ tolerance : 20 %

FCOHb OR (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ABL700/800	77	96.1	2.6	1.3	2.600	10.2	e
2	ABL90 FLEX / PLUS	79	97.4	1.3	1.3	2.595	8.7	e
3	ABL80 FLEX CO-OX / O	6	100.0	0.0	0.0	2.900	9.1	e*

FMetHb OR
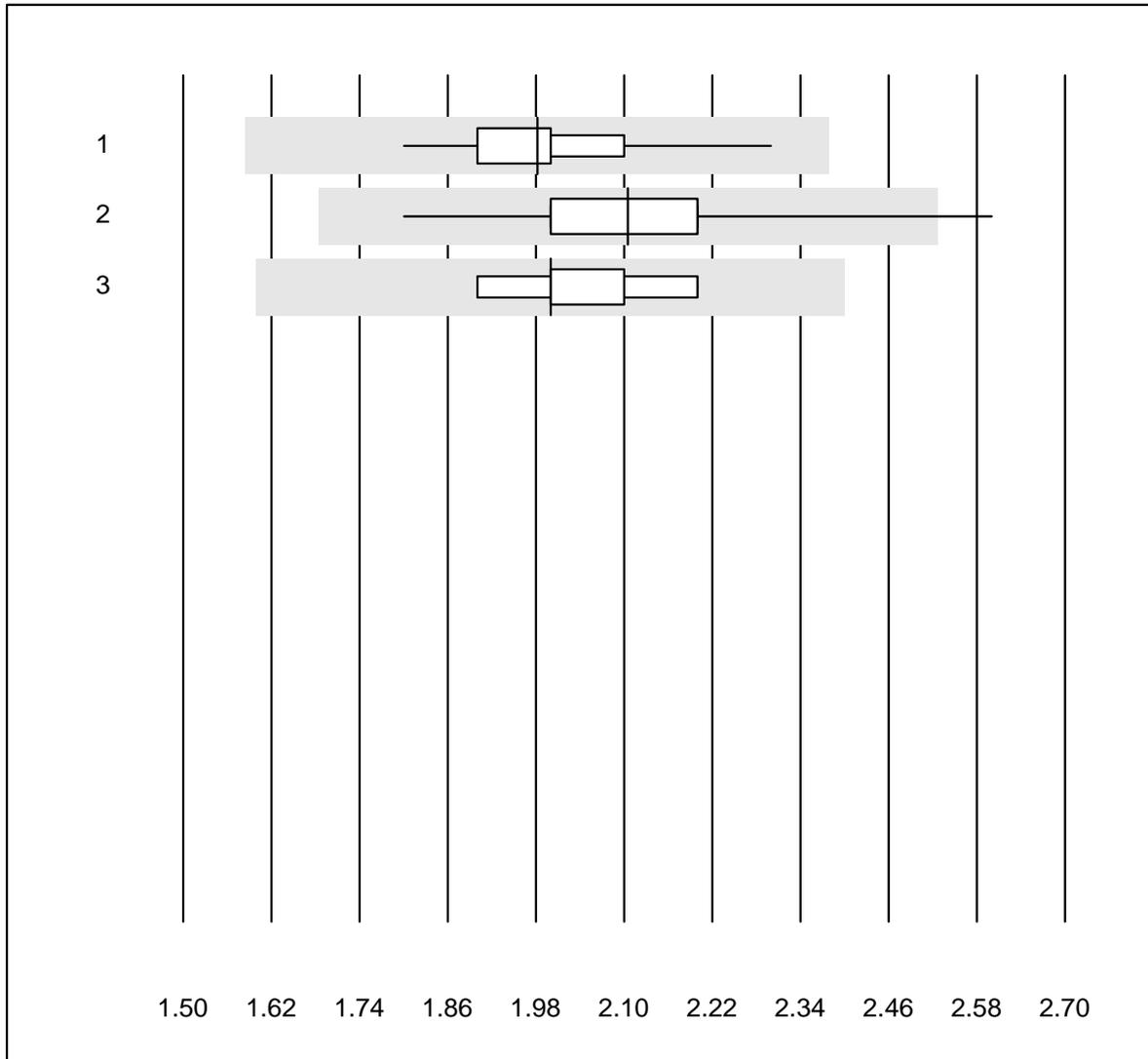
MQ tolerance : 20 %   FMetHb OR (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ABL700/800	77	98.7	0.0	1.3	1.982	4.5	e
2	ABL90 FLEX / PLUS	79	98.7	1.3	0.0	2.105	5.2	e
3	ABL80 FLEX CO-OX / O	5	100.0	0.0	0.0	2.000	5.6	e*

FHbF OR

55 59 63 67 71 75 79 83 87 91 95
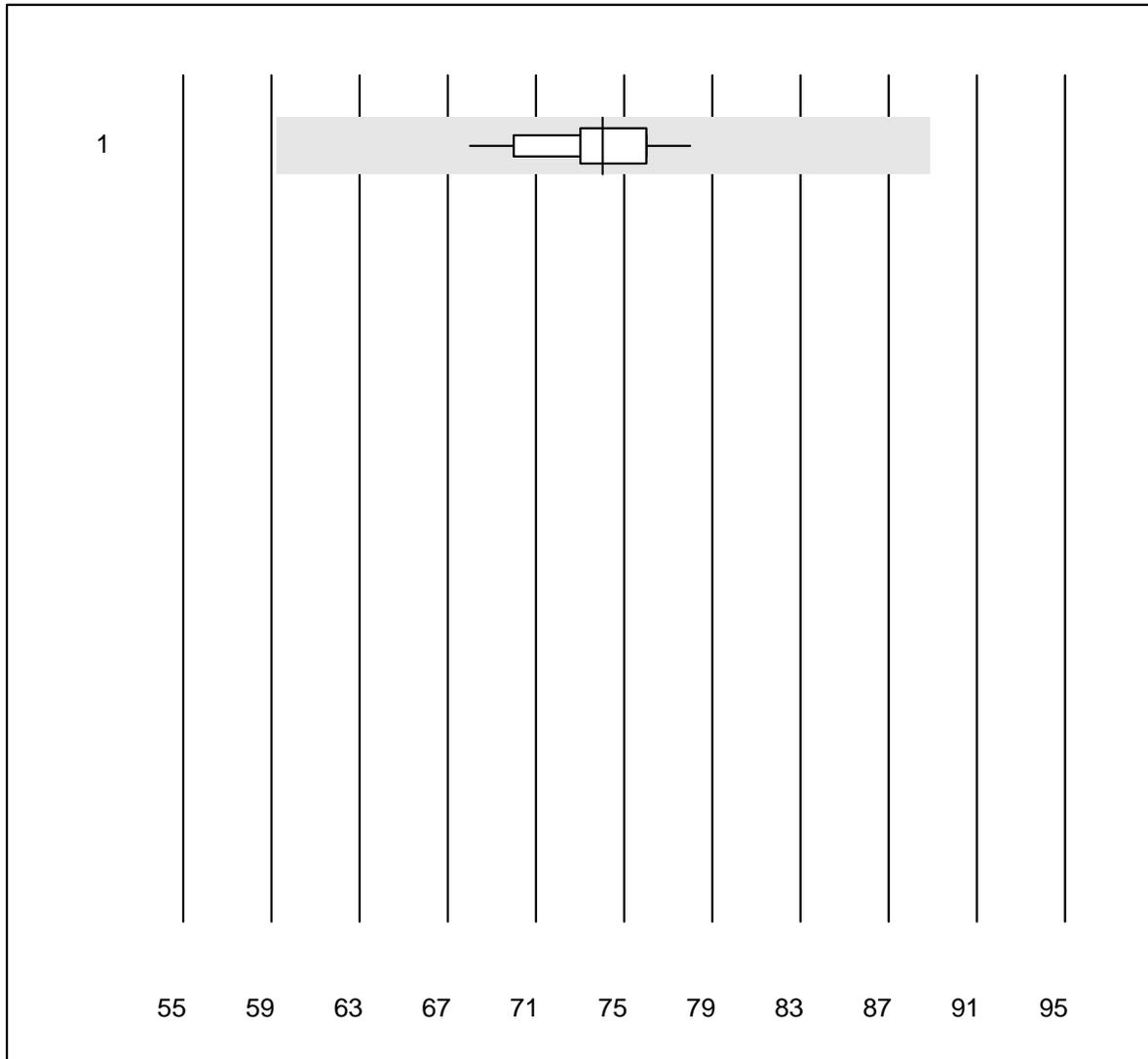
MQ tolerance : 20 %　　FHbF OR (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ABL90 FLEX / PLUS	30	100.0	0.0	0.0	74.033	3.3	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Bilirubin OR

| | 230 | 245 | 260 | 275 | 290 | 305 | 320 | 335 | 350 | 365 | 380 |
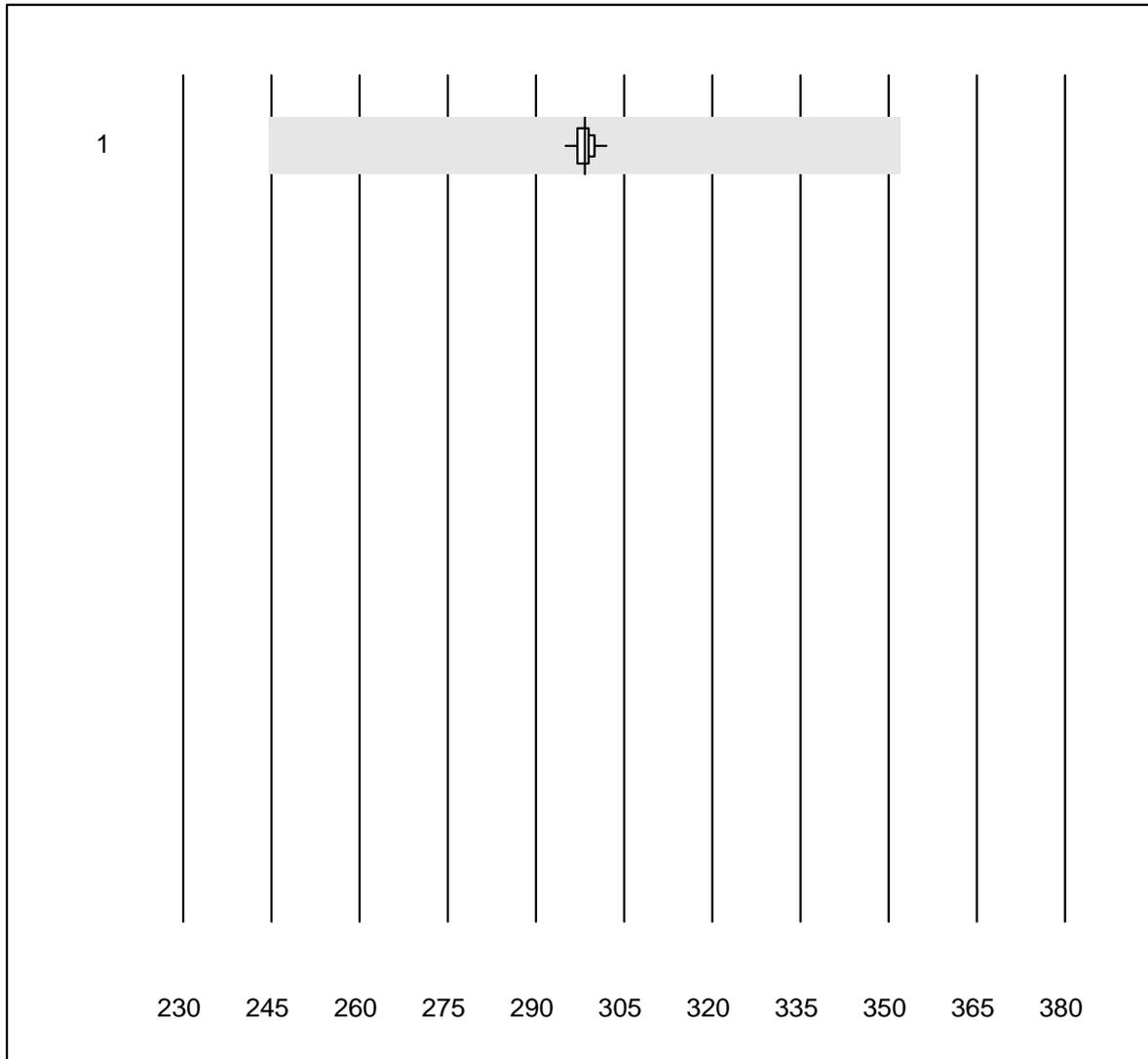
QUALAB tolerance : 18 %   Bilirubin OR (µmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ABL90 FLEX / PLUS	31	100.0	0.0	0.0	298.3	0.5	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Troponin I
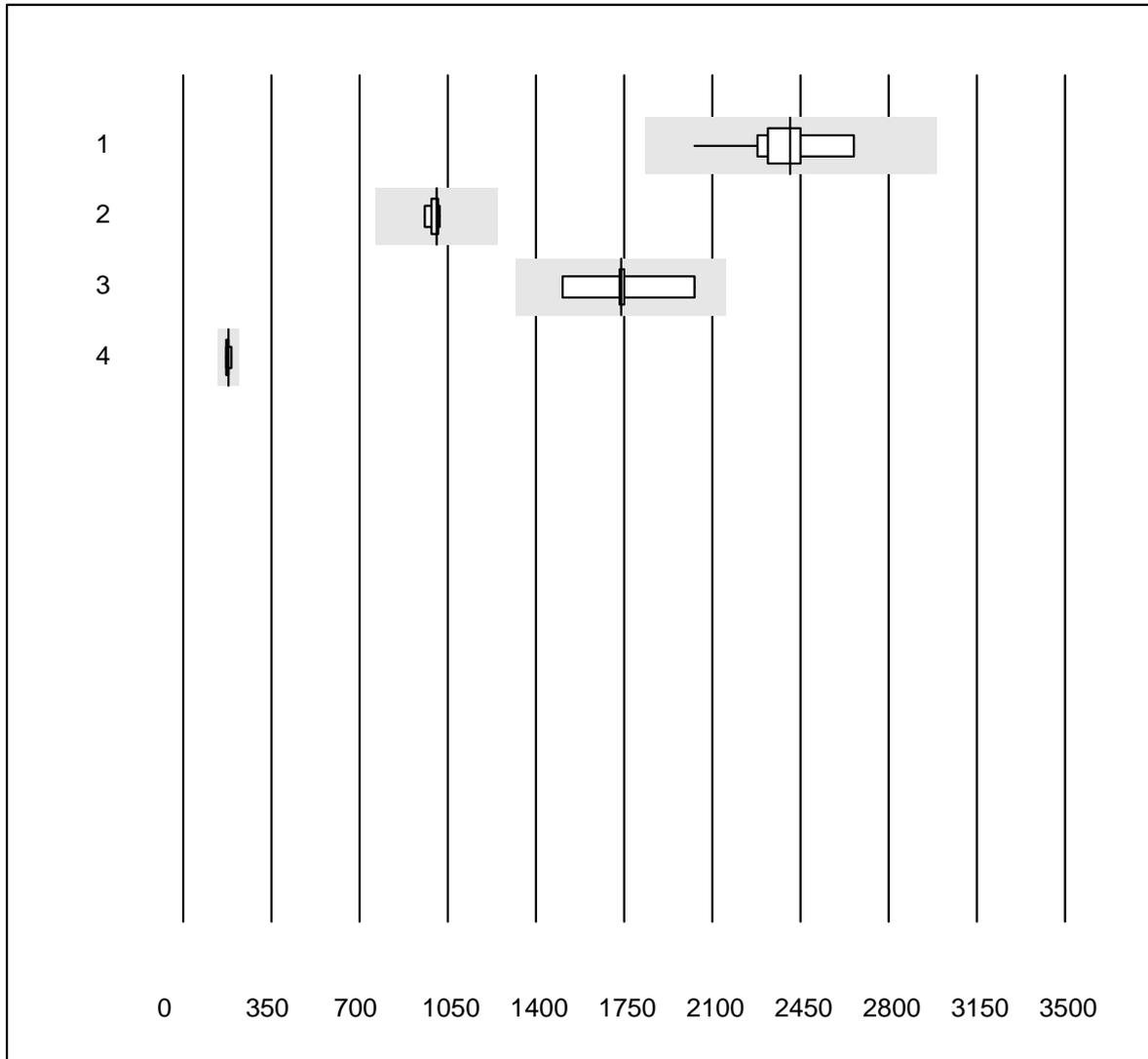
QUALAB tolerance : 24 %

Troponin I (ng/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Vidas	12	100.0	0.0	0.0	2409.7	7.0	e
2	Architect High Sensi	9	100.0	0.0	0.0	1006.9	2.3	e
3	Other methods	9	100.0	0.0	0.0	1739.0	8.3	e
4	AQT 90 FLEX	4	100.0	0.0	0.0	180.0	4.5	e

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Troponin T
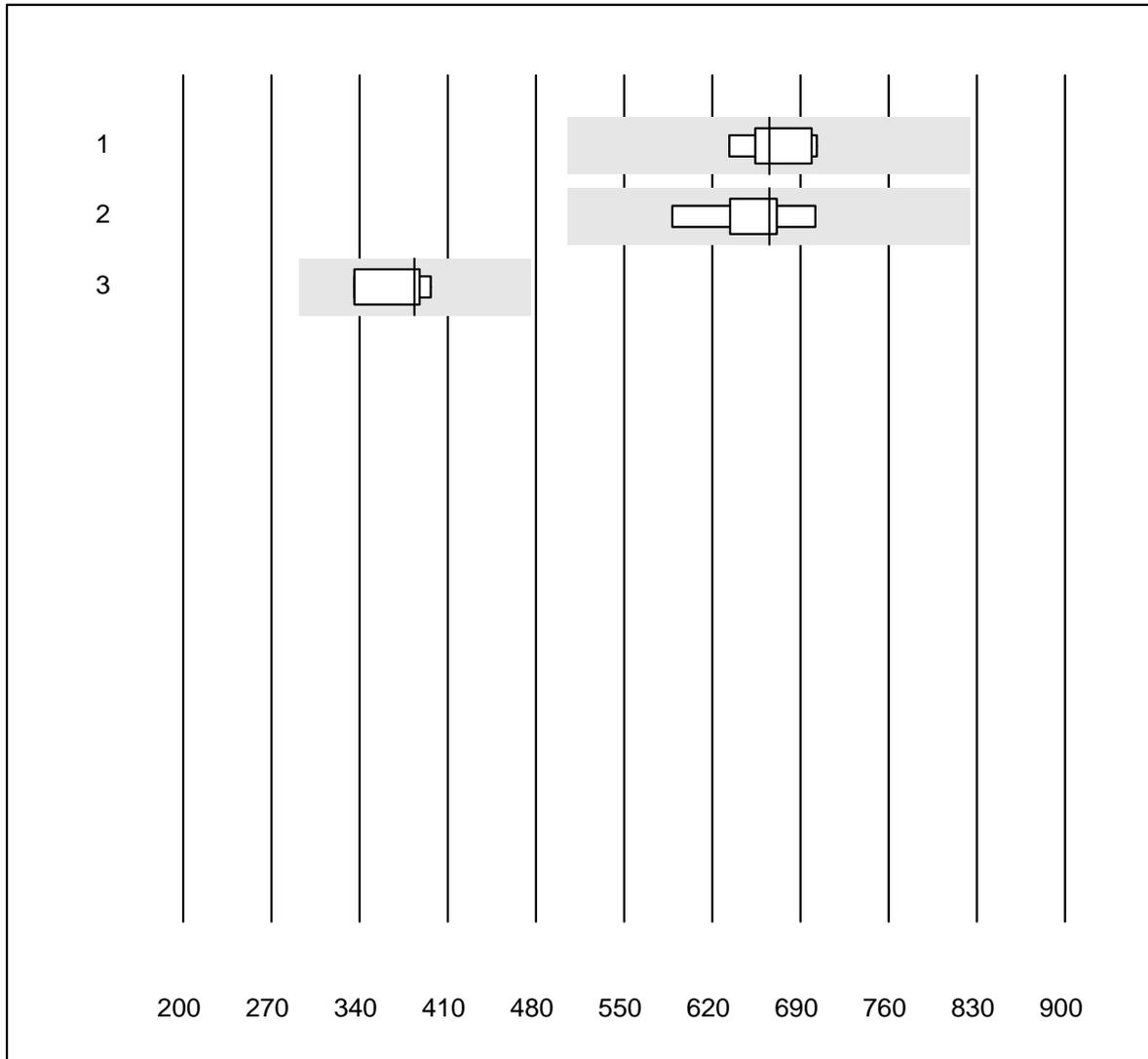
QUALAB tolerance : 24 %

Troponin T (ng/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas hs	7	100.0	0.0	0.0	665.00	3.7	e
2	Cobas hs STAT	8	100.0	0.0	0.0	665.00	5.5	e
3	Cobas E / Elecsys	4	100.0	0.0	0.0	383.70	7.2	e*

One result was submitted but not published because the method group was too small. (<4 results per group)

Myoglobin
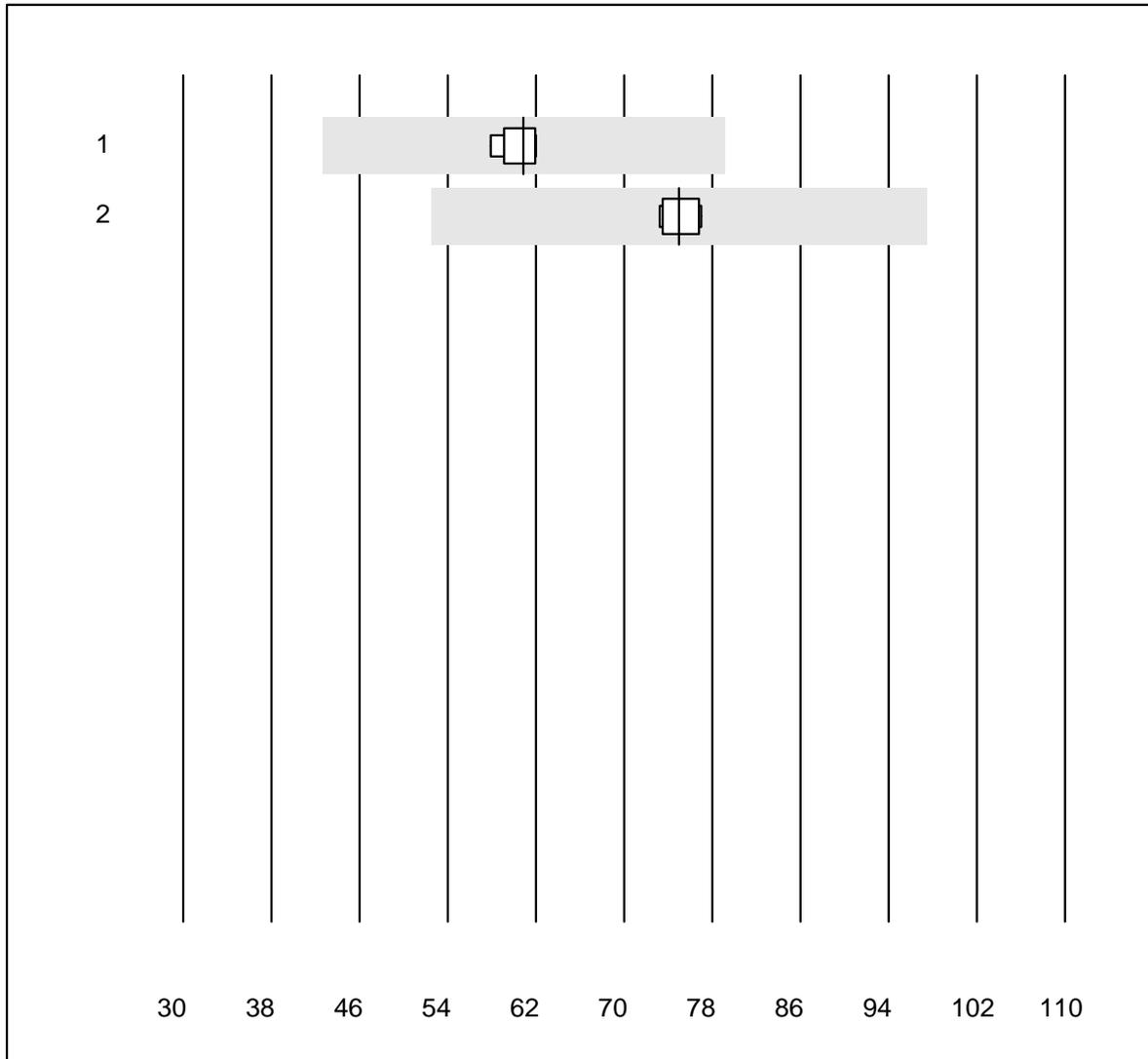
QUALAB tolerance : 30 %

Myoglobin (µg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas E / Elecsys	5	100.0	0.0	0.0	60.9	3.0	e
2	Architect	5	100.0	0.0	0.0	75.0	2.4	e

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

CK-MB mass

| | 2.0 | 3.2 | 4.4 | 5.6 | 6.8 | 8.0 | 9.2 | 10.4 | 11.6 | 12.8 | 14.0 |
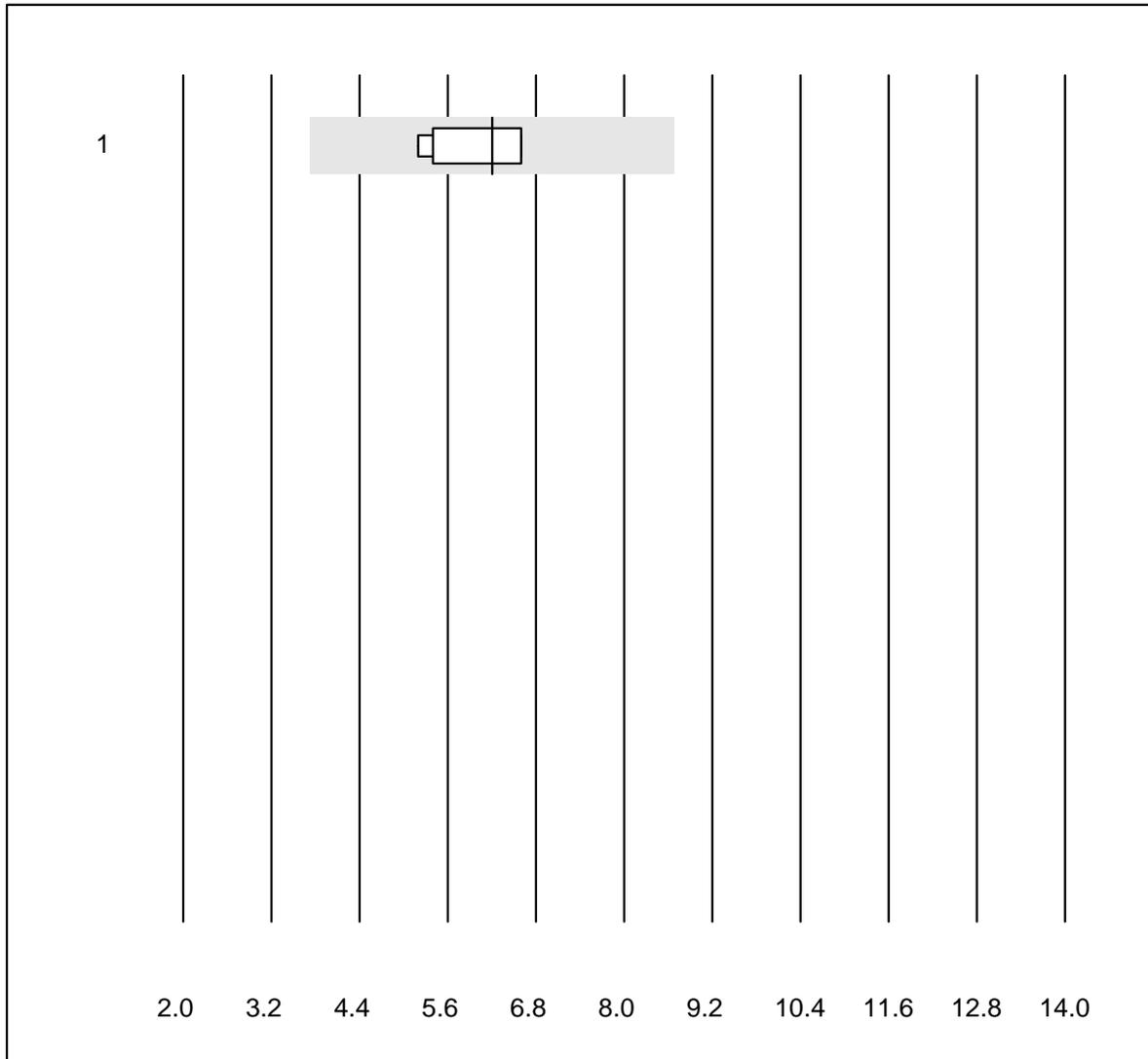
MQ tolerance : 40 %

CK-MB mass (µg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas E / Elecsys	5	100.0	0.0	0.0	6.2	11.1	e*

9 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

BNP

QUALAB tolerance : 27 %

BNP (ng/l)
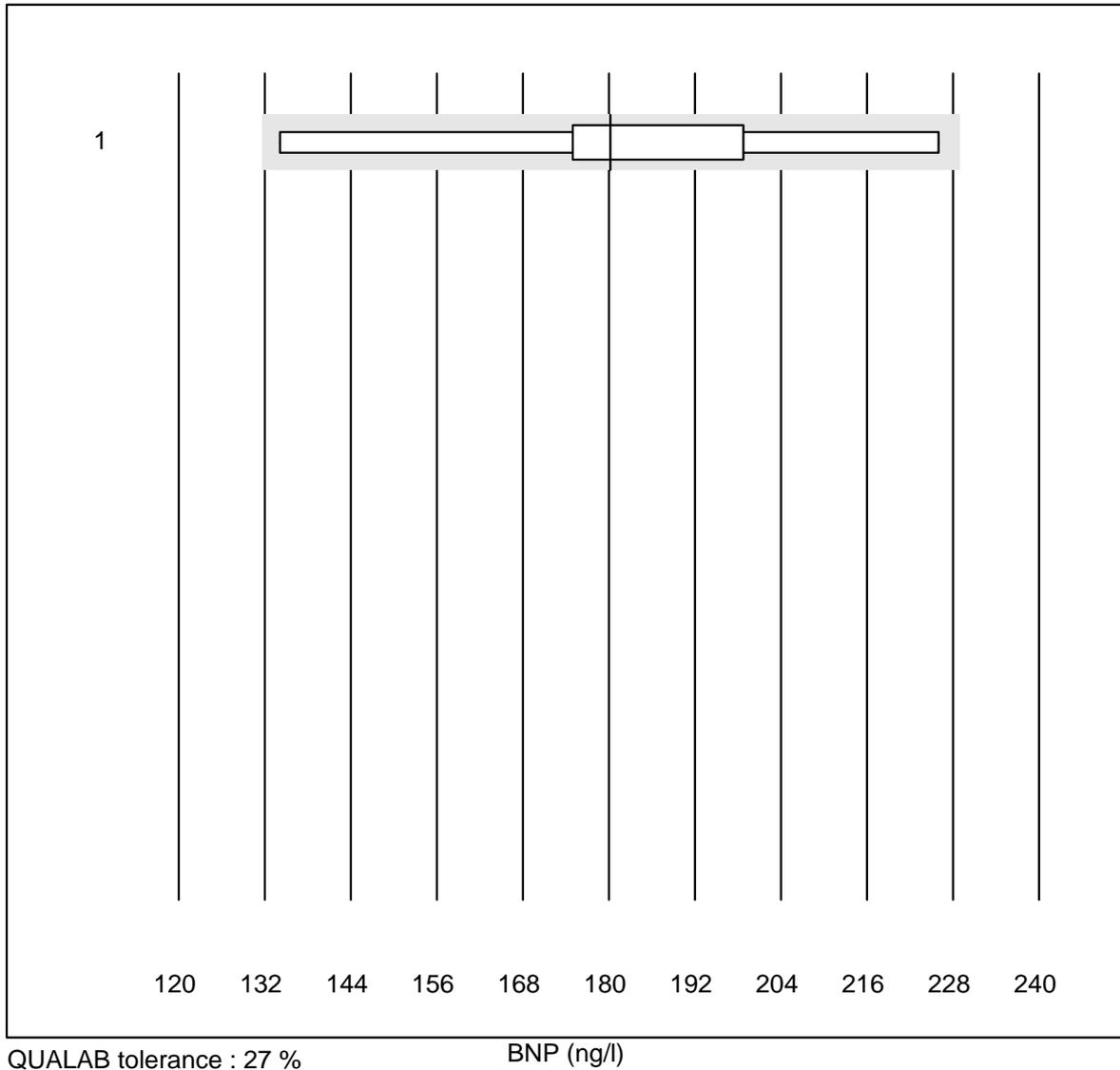
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Other methods	6	100.0	0.0	0.0	180.3	16.6	e*

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)
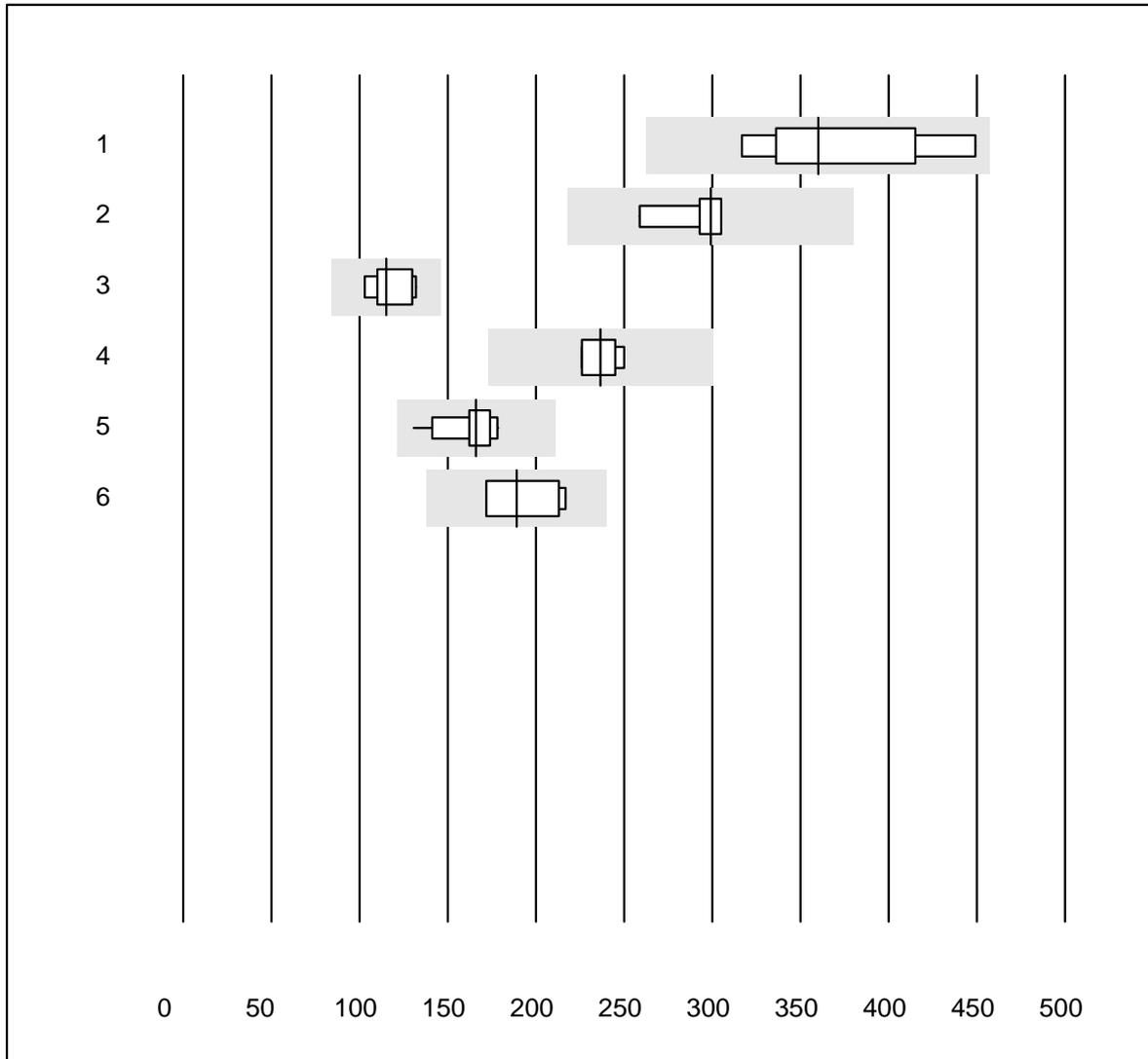
NT-proBNP

QUALAB tolerance : 27 %

NT-proBNP (ng/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Pathfast	7	100.0	0.0	0.0	360.0	12.6	e*
2	AQT 90 FLEX	5	100.0	0.0	0.0	299.0	6.6	e
3	VIDAS	9	100.0	0.0	0.0	115.0	9.0	e
4	Other methods	4	100.0	0.0	0.0	236.5	5.1	e
5	Cobas E / Elecsys	16	100.0	0.0	0.0	166.0	8.1	e
6	Architect	7	100.0	0.0	0.0	189.0	9.6	e*

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

TSH

TSH (mU/l)
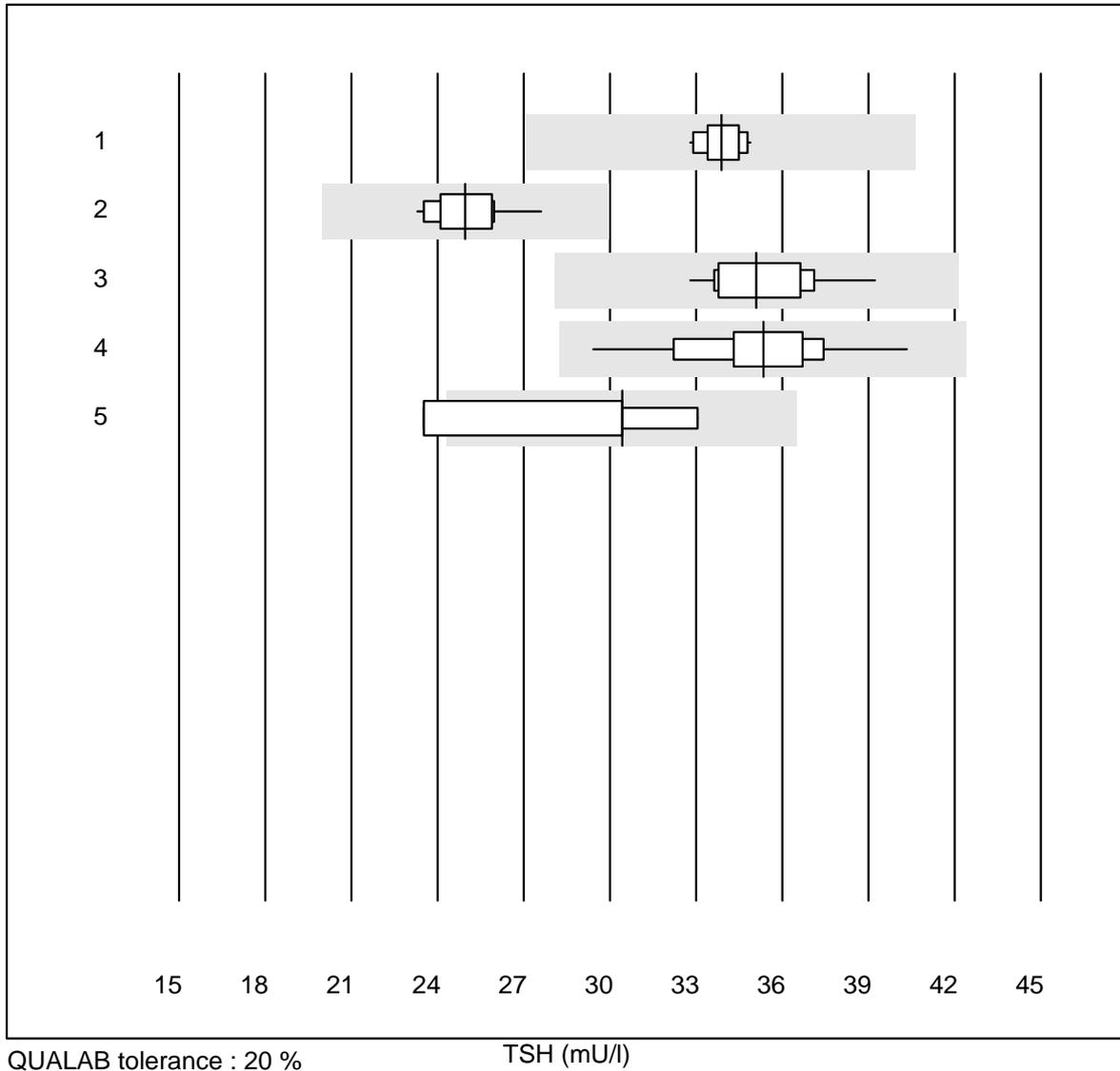
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas E / Elecsys	18	100.0	0.0	0.0	33.87	1.9	e
2	Architect	11	100.0	0.0	0.0	24.95	5.0	e
3	VIDAS	15	100.0	0.0	0.0	35.10	4.9	e
4	AFIAS	35	97.1	0.0	2.9	35.34	6.0	e
5	Other methods	5	60.0	20.0	20.0	30.42	13.9	e*

7 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

T3
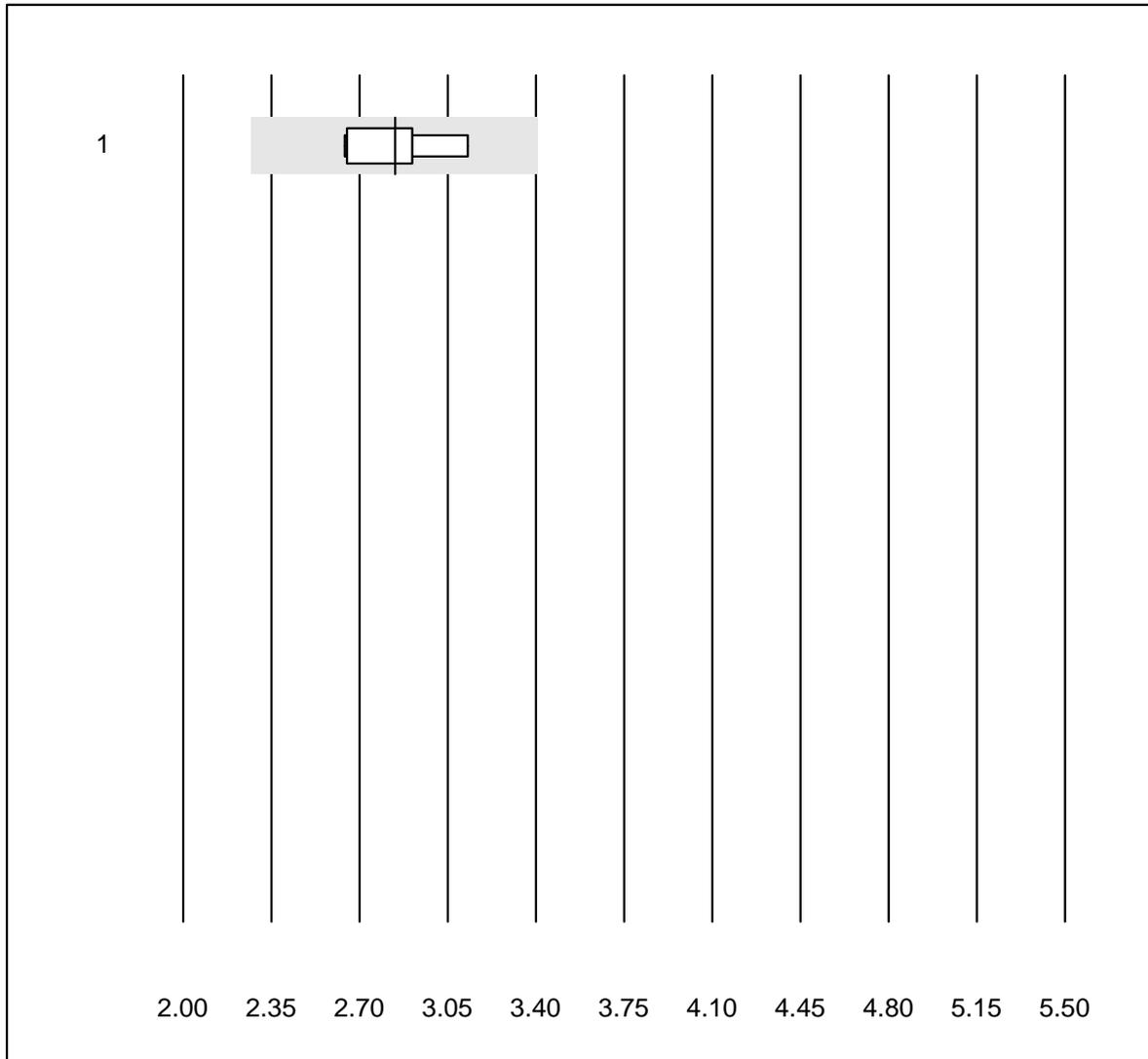
2.00 2.35 2.70 3.05 3.40 3.75 4.10 4.45 4.80 5.15 5.50

T3 (nmol/l)

MQ tolerance : 20 %

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	AFIAS	8	100.0	0.0	0.0	2.8	6.4	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

T4
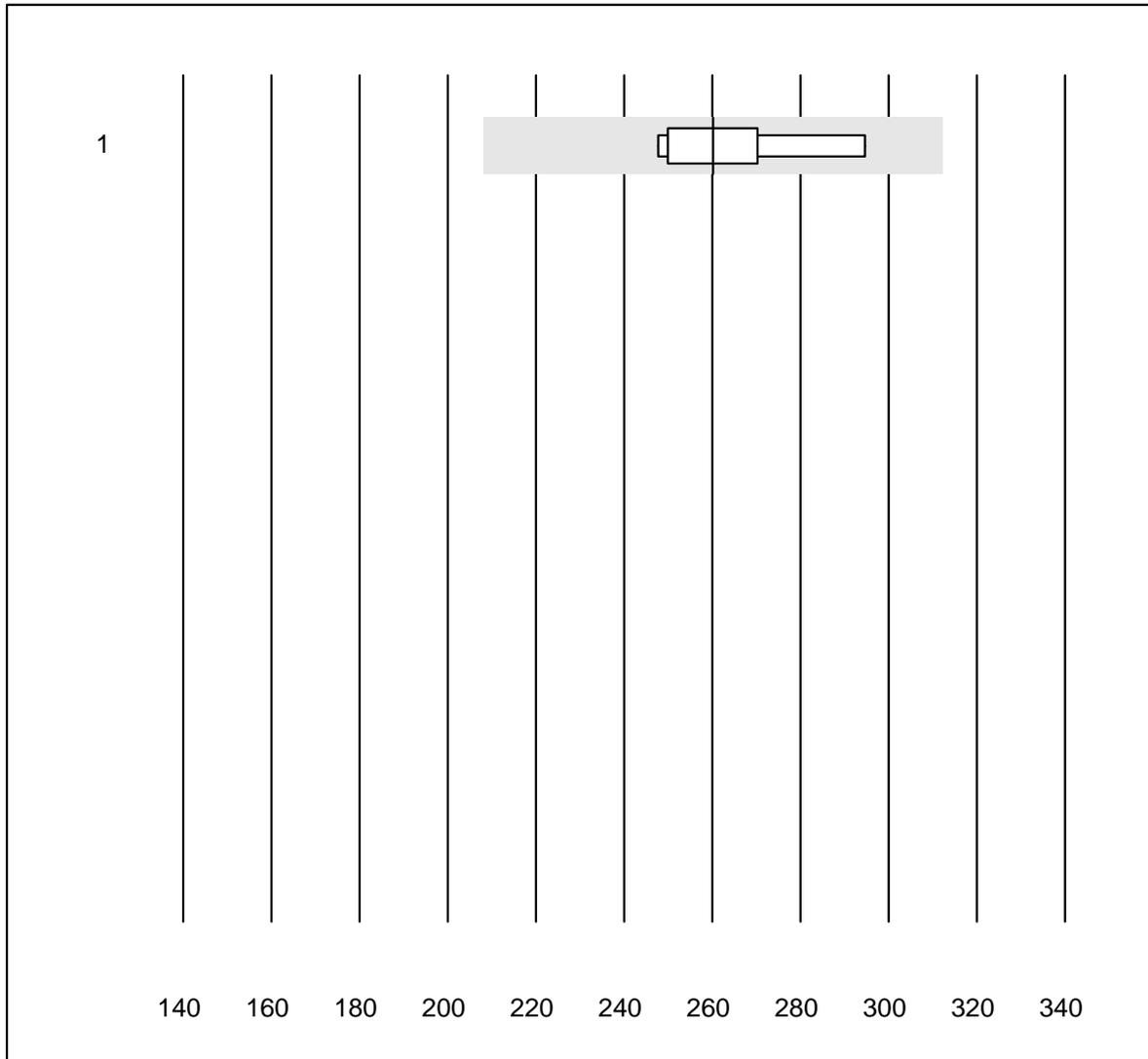
MQ tolerance : 20 %

T4 (nmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	AFIAS	8	100.0	0.0	0.0	260	6.1	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

FT3

13.0 14.3 15.6 16.9 18.2 19.5 20.8 22.1 23.4 24.7 26.0
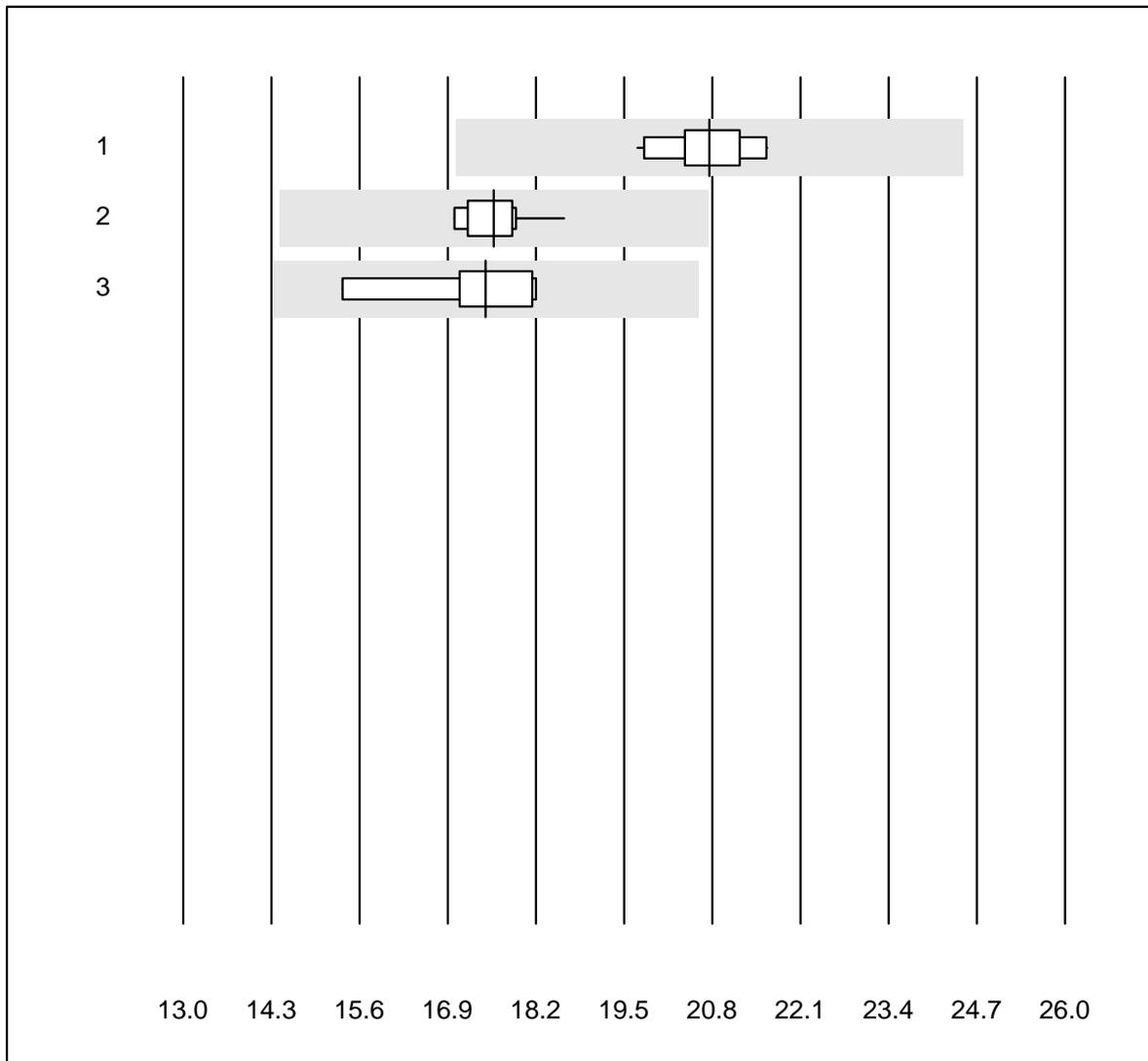
QUALAB tolerance : 18 %
FT3 (pmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas E / Elecsys	18	100.0	0.0	0.0	20.8	2.9	e
2	Architect	10	100.0	0.0	0.0	17.6	2.7	e
3	VIDAS	7	100.0	0.0	0.0	17.5	5.6	e

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

FT4
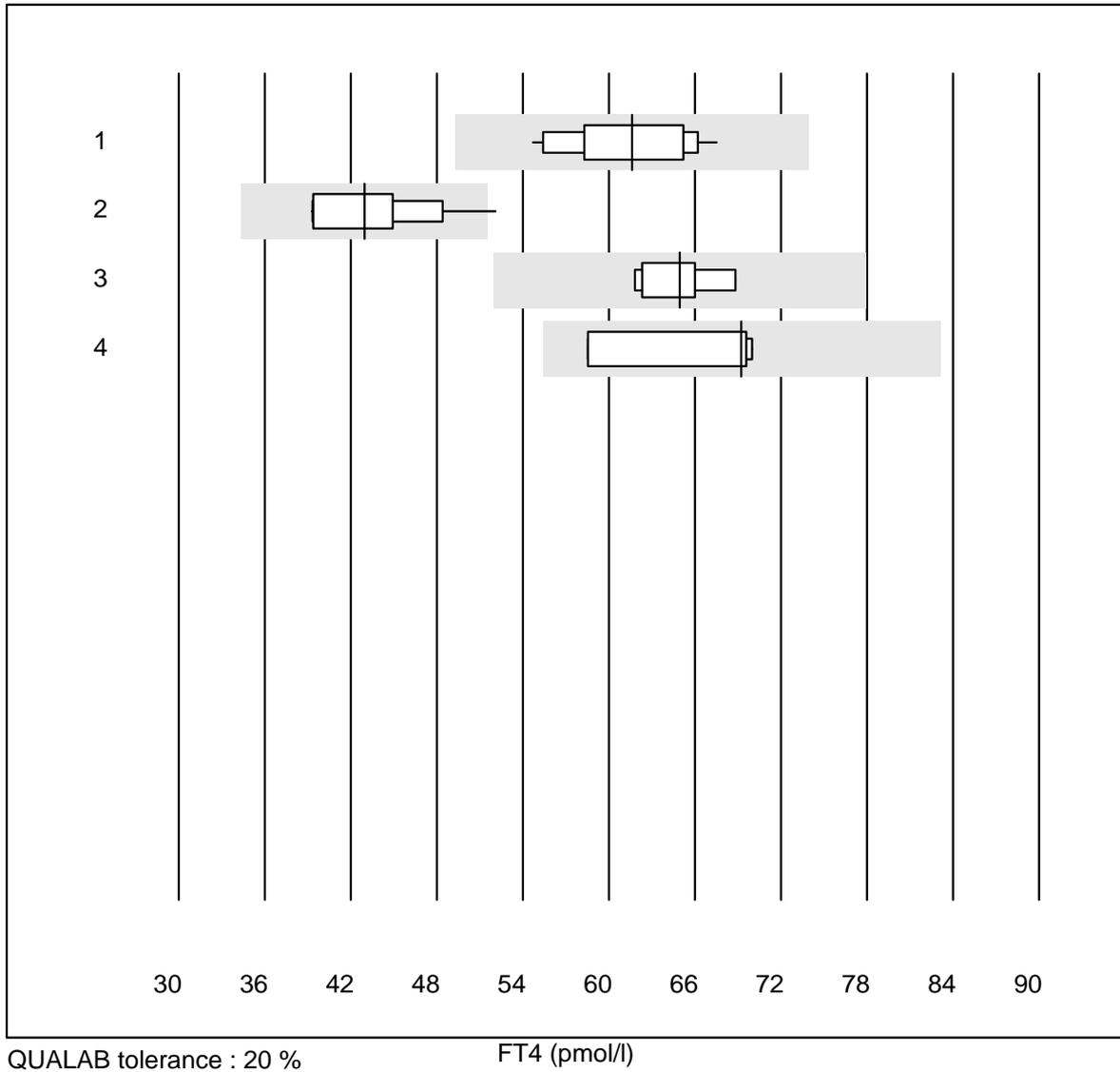
QUALAB tolerance : 20 %   FT4 (pmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas E / Elecsys	18	100.0	0.0	0.0	61.6	6.4	e
2	Architect	11	90.9	9.1	0.0	42.9	9.7	e*
3	VIDAS	8	100.0	0.0	0.0	64.9	3.6	e
4	Other methods	4	100.0	0.0	0.0	69.3	8.2	e*

6 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Testosterone
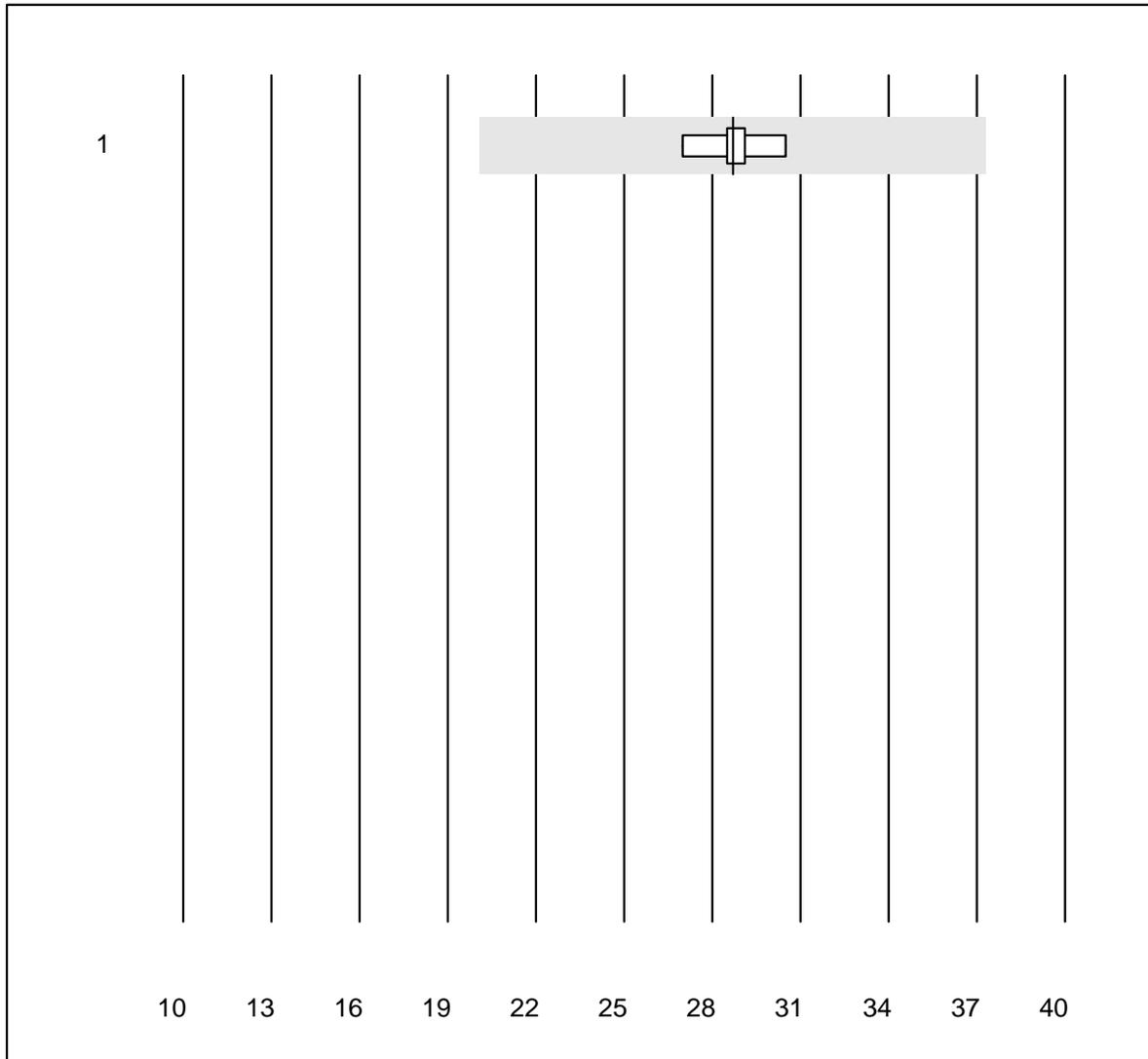
QUALAB tolerance : 30 %

Testosterone (nmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	9	100.0	0.0	0.0	28.7	3.2	e

8 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Estradiol
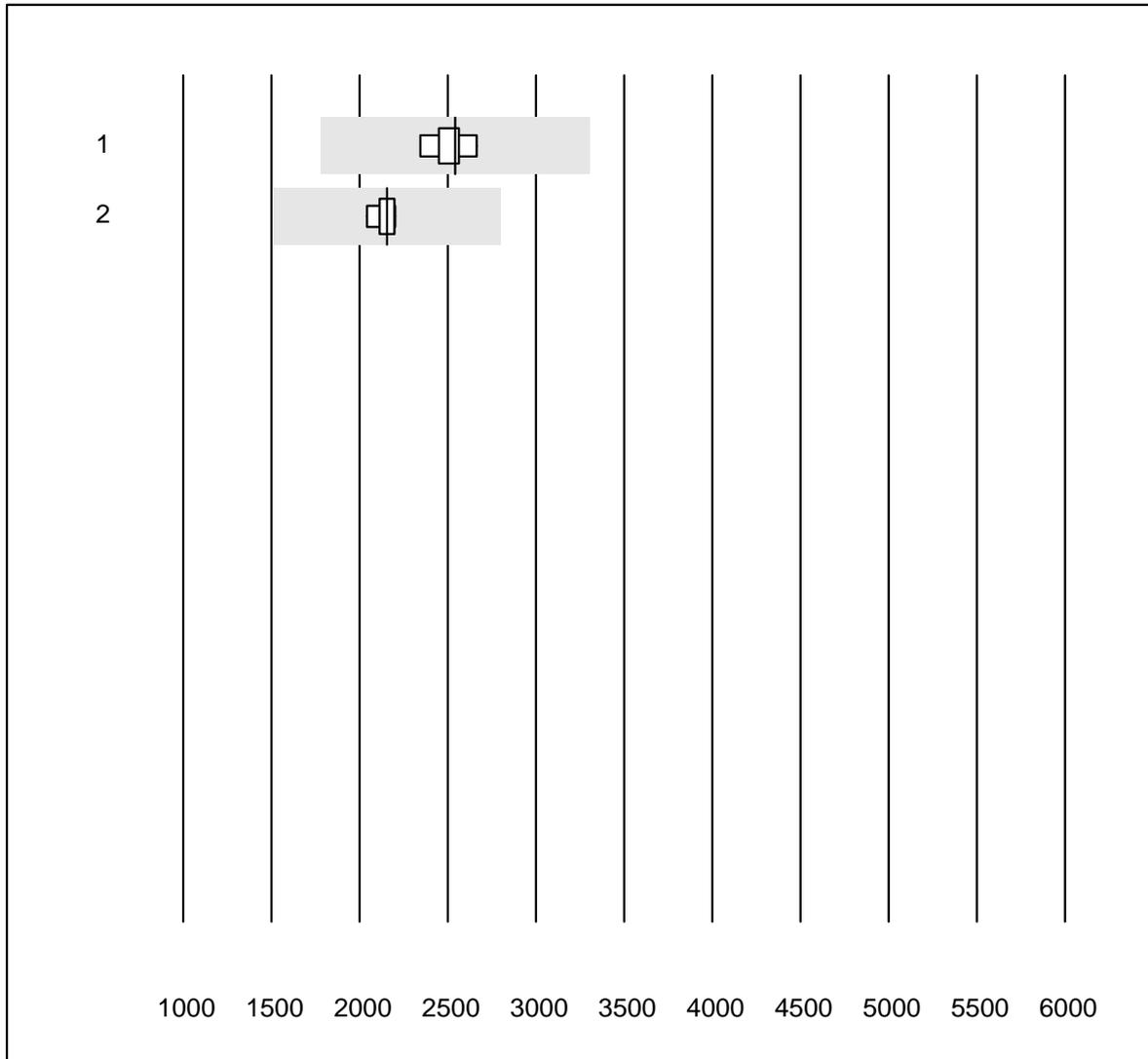
QUALAB tolerance : 30 %   Estradiol (pmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	8	100.0	0.0	0.0	2542	3.8	e
2	Architect	6	100.0	0.0	0.0	2156	2.8	e

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

SHBG
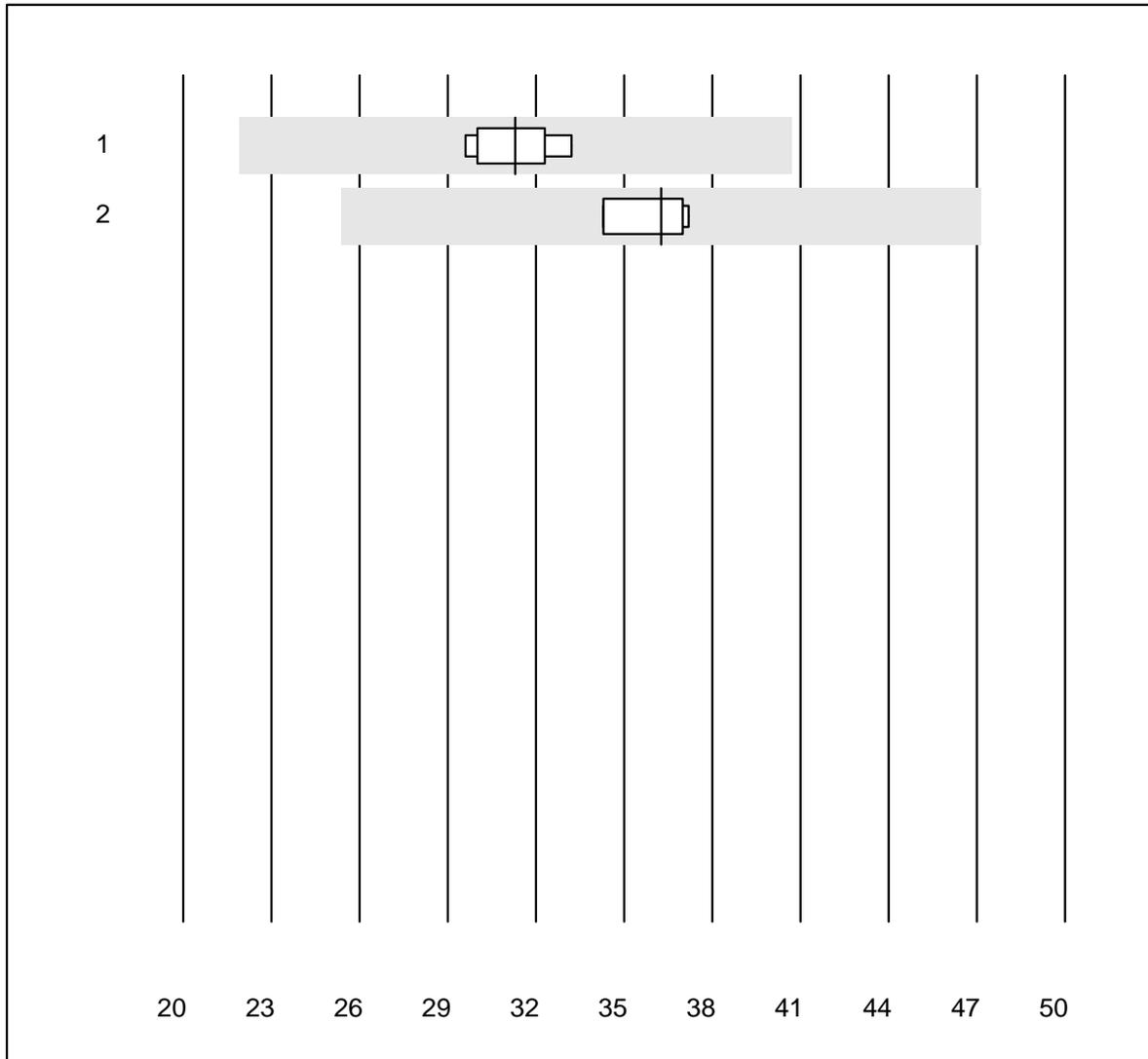
MQ tolerance : 30 %

SHBG (nmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	8	100.0	0.0	0.0	31.3	4.3	e
2	Architect	4	100.0	0.0	0.0	36.3	3.8	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Cortisol
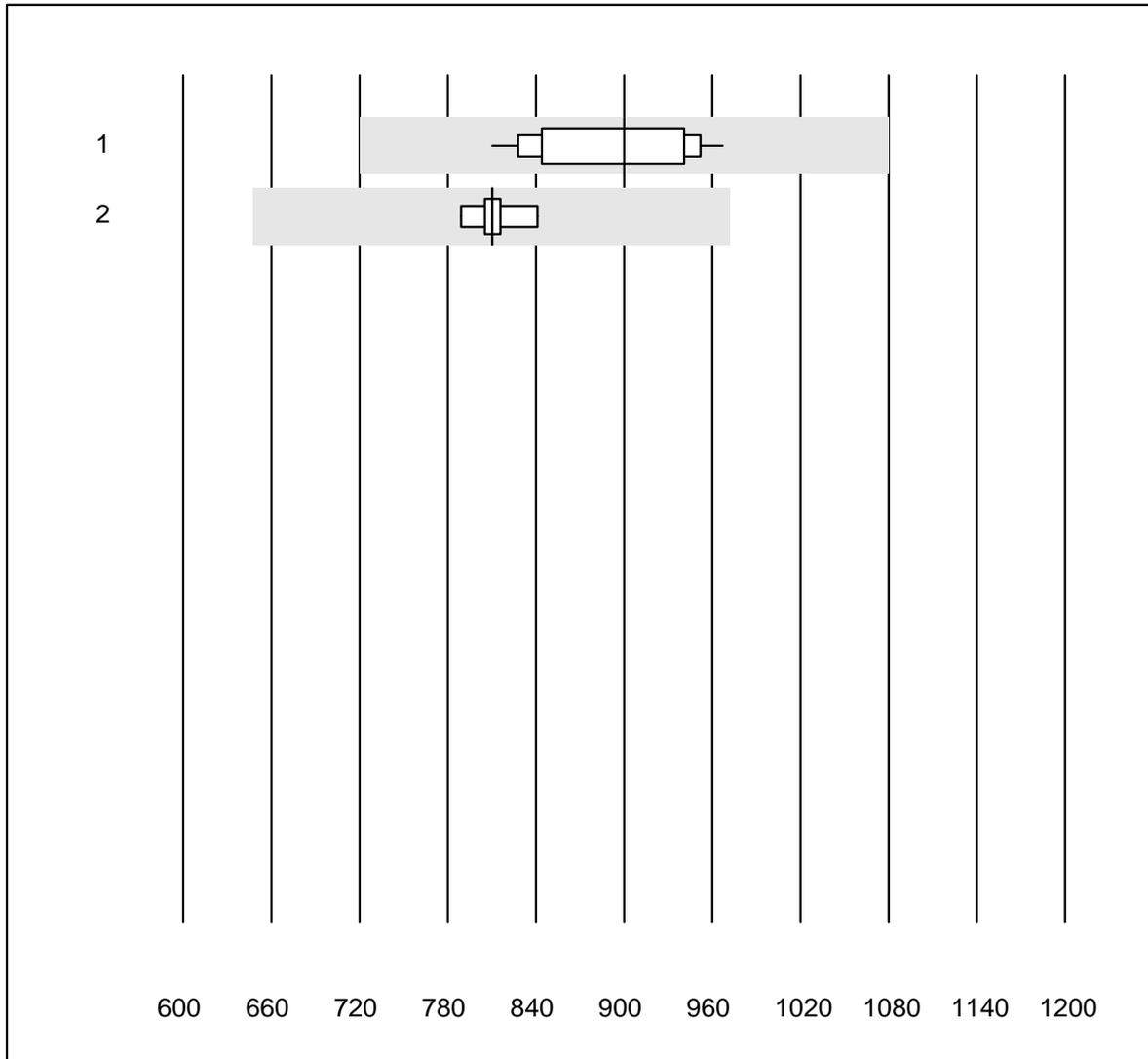
QUALAB tolerance : 20 %

Cortisol (nmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas E / Elecsys	15	100.0	0.0	0.0	900	5.3	e
2	Architect	5	100.0	0.0	0.0	810	2.3	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Progesteron
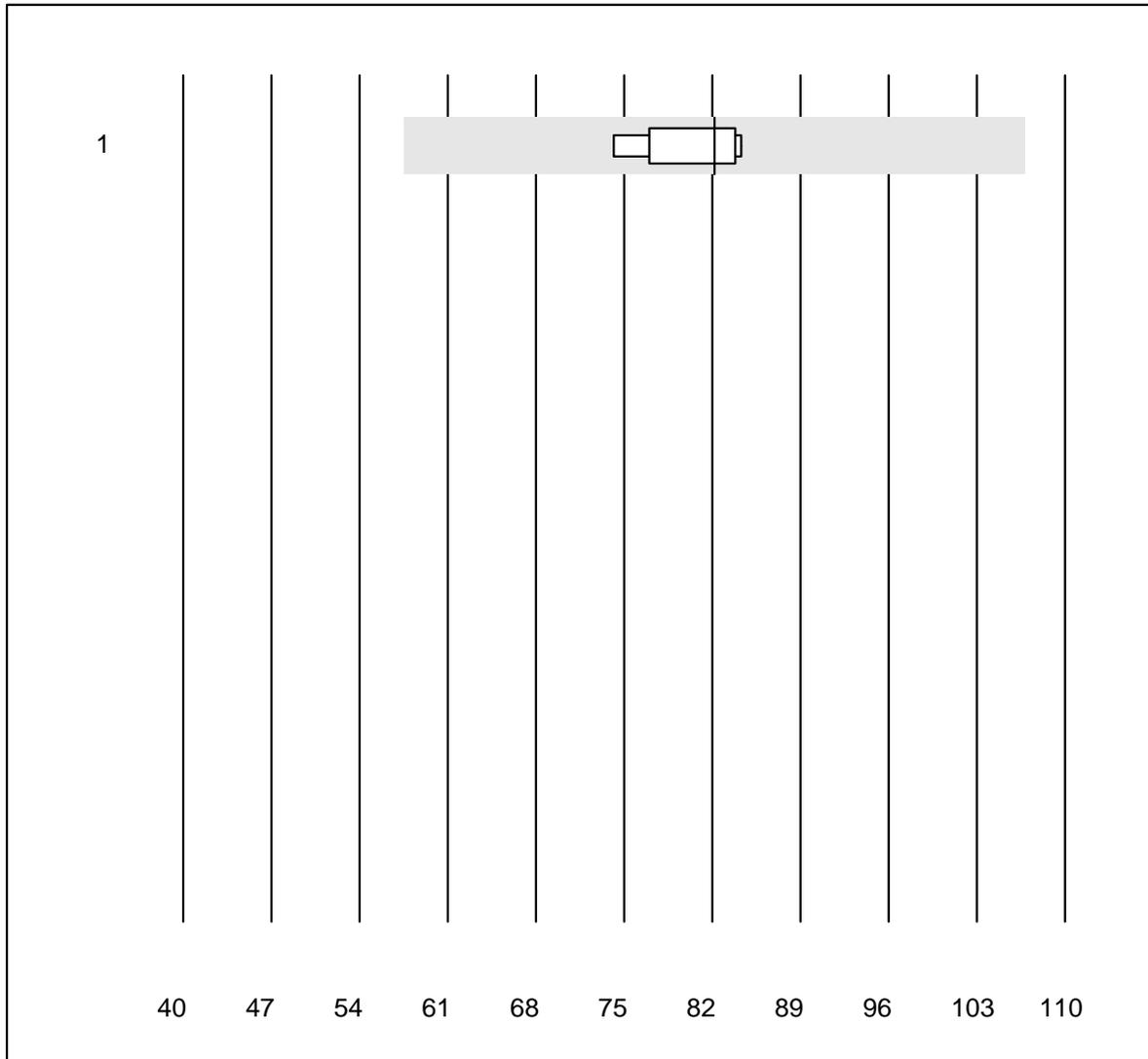
MQ tolerance : 30 %

Progesteron (nmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	6	100.0	0.0	0.0	82.2	5.0	e

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

DHEAS
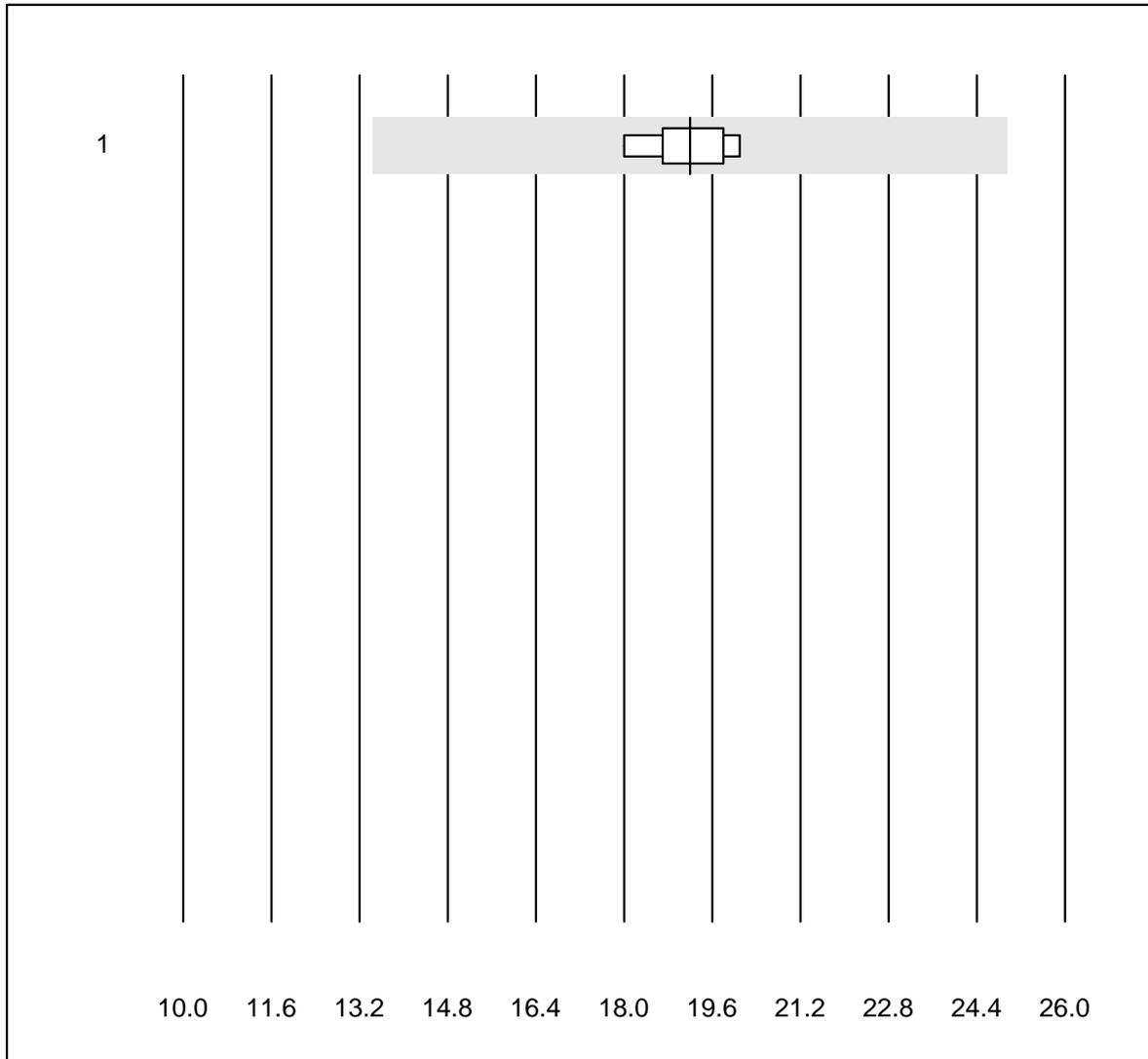
MQ tolerance : 30 %

DHEAS (µmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	7	100.0	0.0	0.0	19.20	3.7	e

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Luteinizing hormone
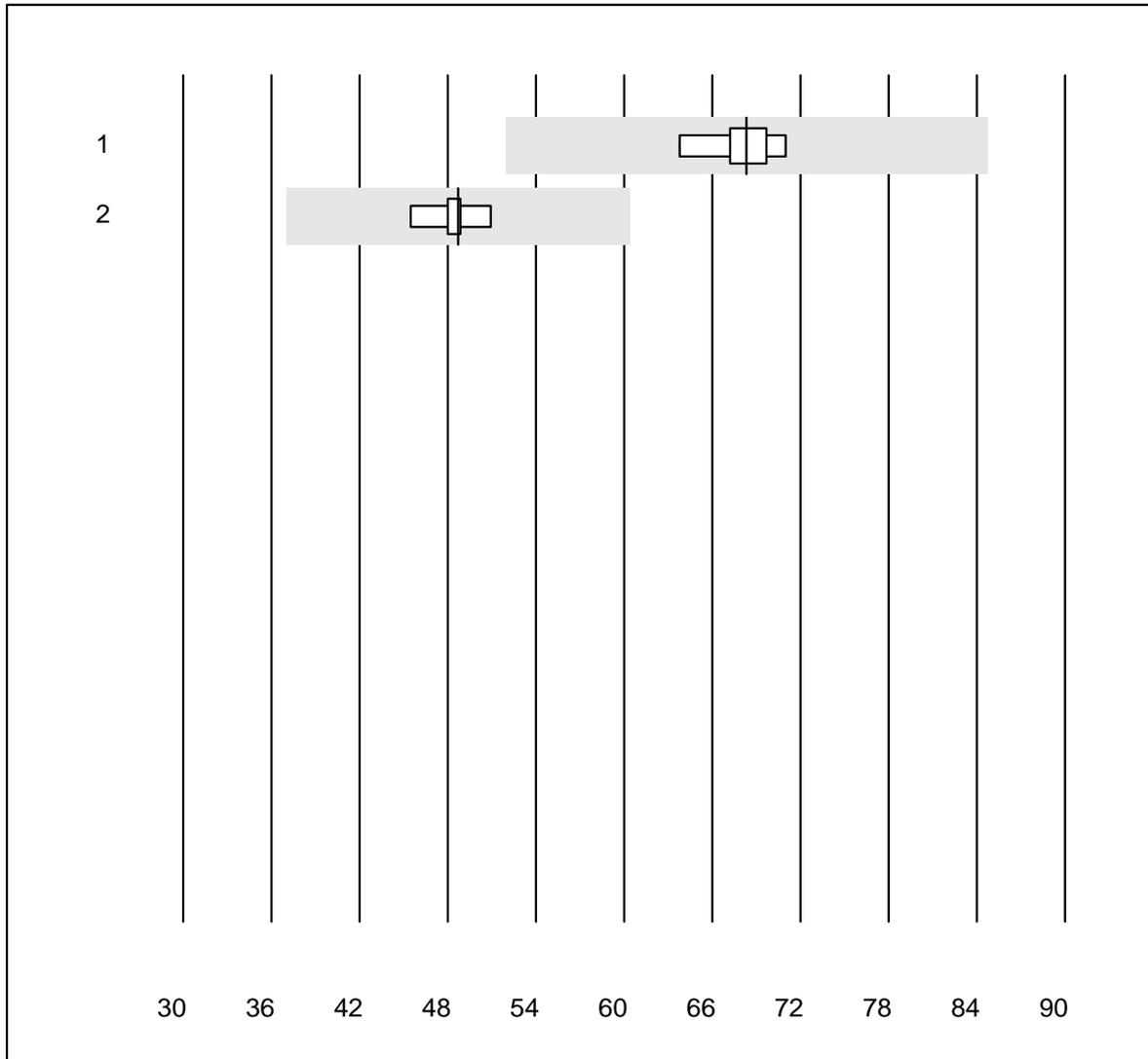
QUALAB tolerance : 24 %

Luteinizing hormone (U/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Roche, Cobas	9	100.0	0.0	0.0	68.3	3.2	e
2	Architect	5	100.0	0.0	0.0	48.7	4.0	e

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Follicle-stimulating hormone
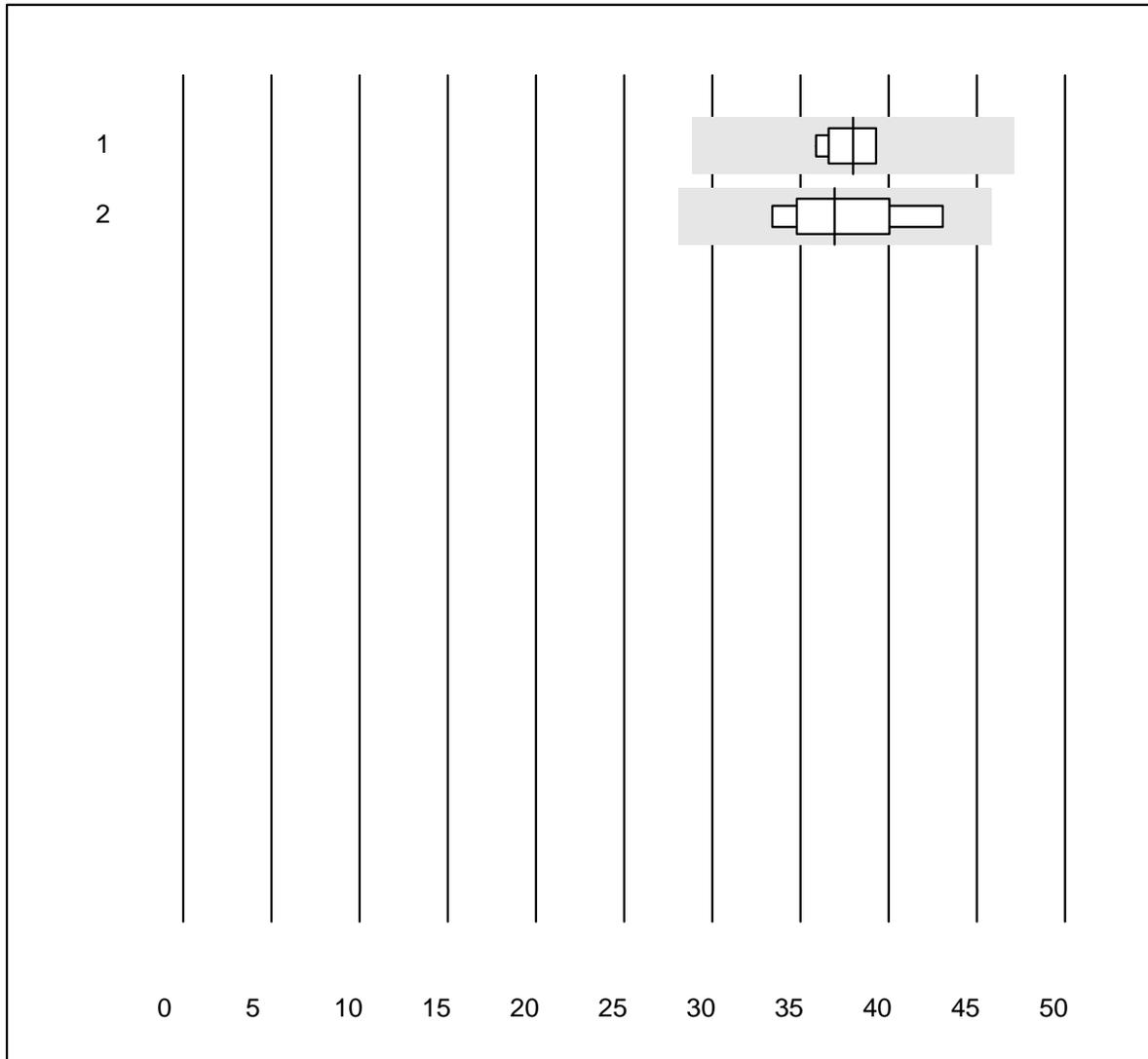
QUALAB tolerance : 24 %   Follicle-stimulating hormone (U/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Roche, Cobas	9	100.0	0.0	0.0	38.0	3.6	e
2	Architect	6	100.0	0.0	0.0	37.0	9.8	e*

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Prolactine
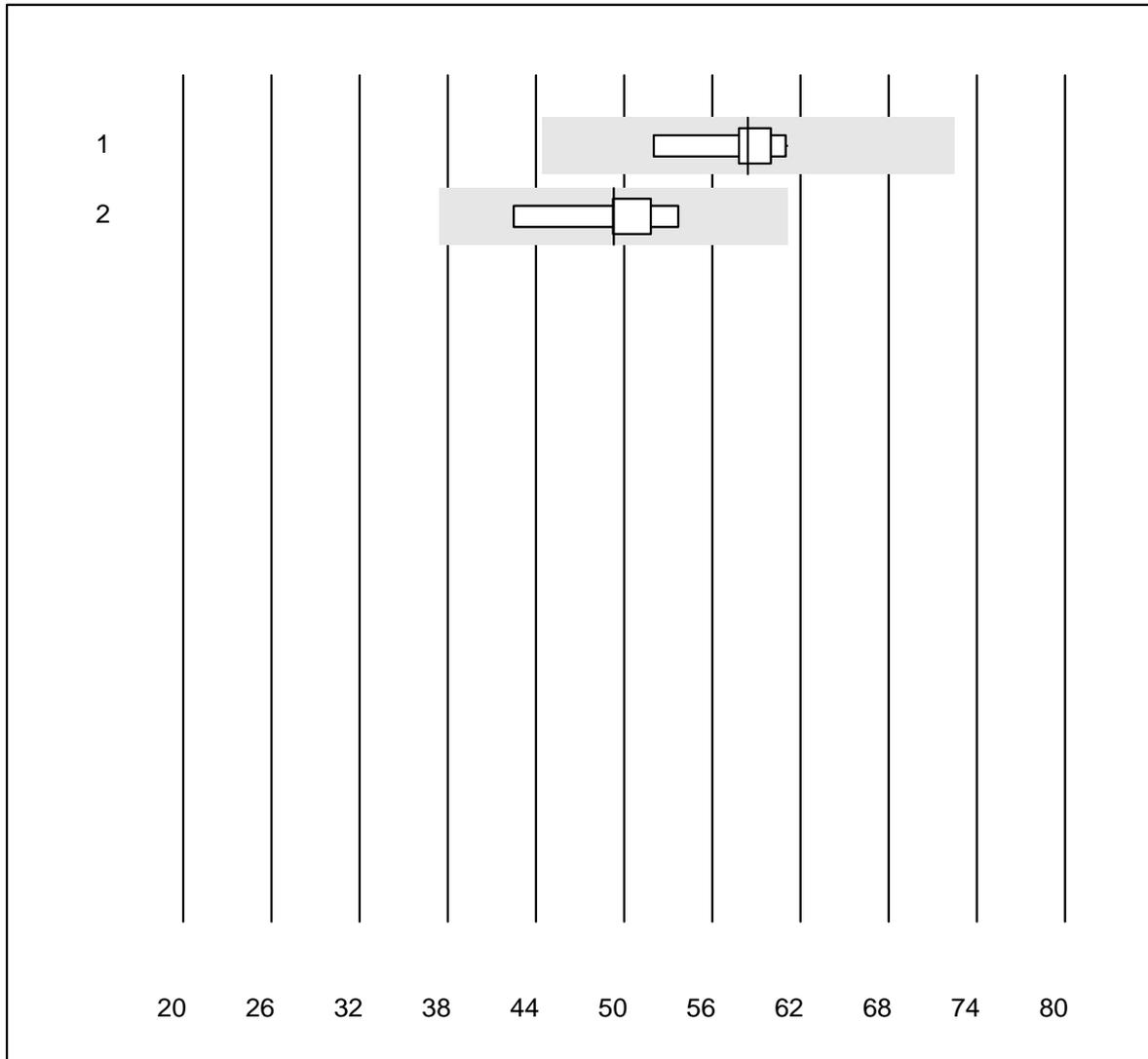
QUALAB tolerance : 24 %

Prolactine (µg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas/Roche	10	100.0	0.0	0.0	58.4	4.5	e
2	Architect	5	100.0	0.0	0.0	49.3	8.6	e*

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Insulin
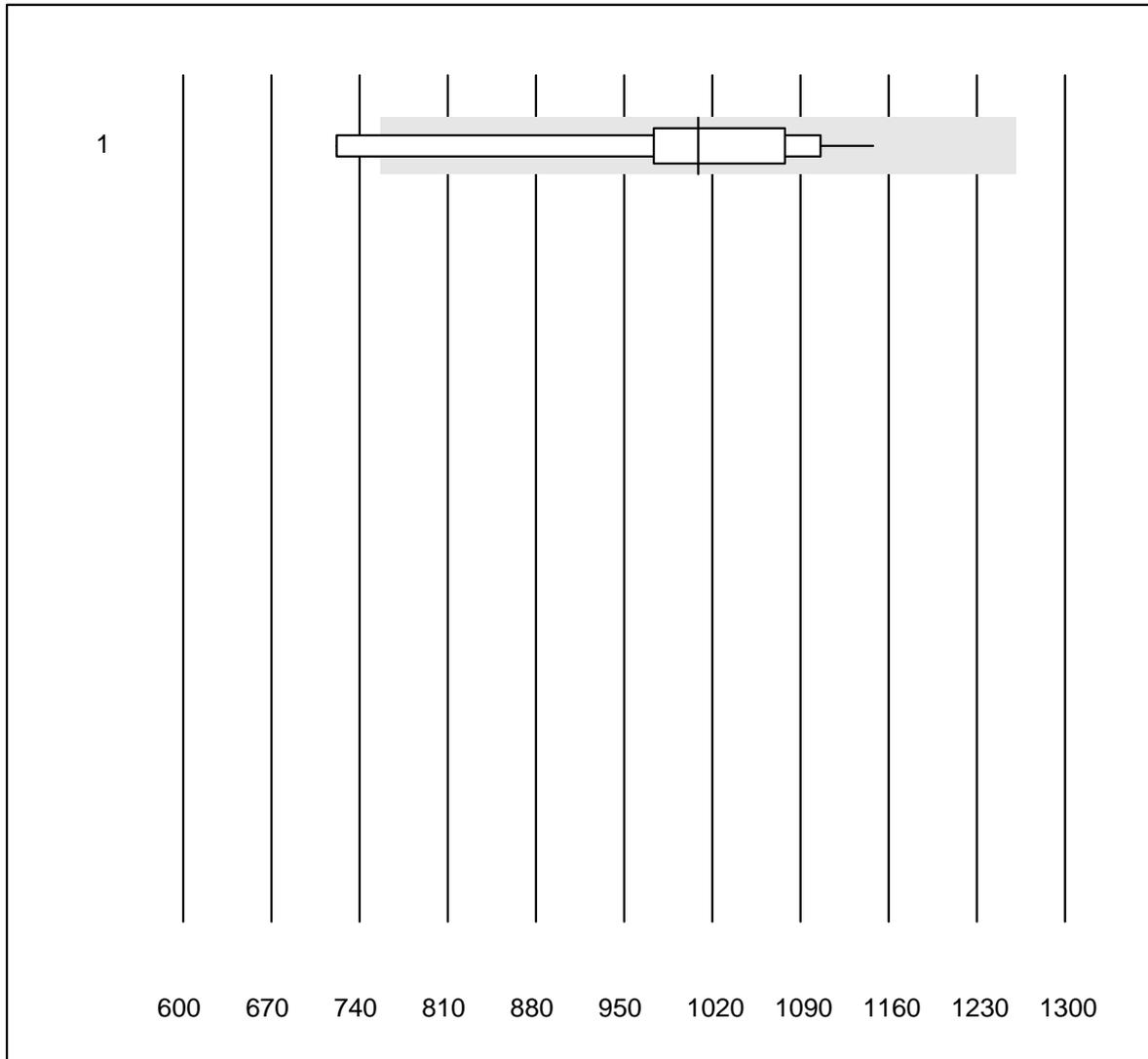
MQ tolerance : 25 %

Insulin (pmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	10	90.0	10.0	0.0	1009	11.7	e*

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

HGH

14   16   18   20   22   24   26   28   30   32   34
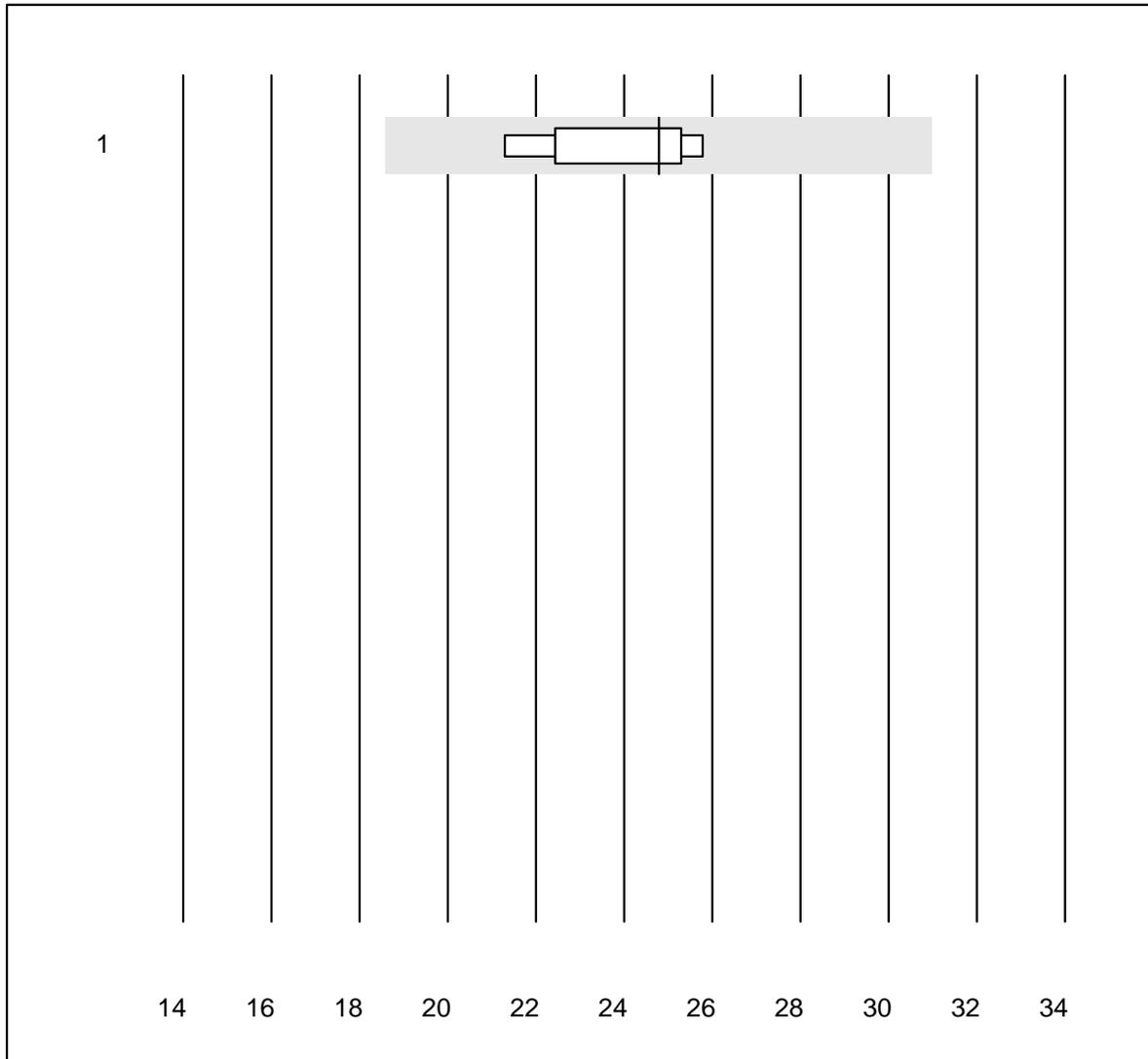
HGH (µg/l)

MQ tolerance : 25 %

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	6	100.0	0.0	0.0	24.80	7.4	e*

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Freies Testosteron

30   39   48   57   66   75   84   93   102   111   120
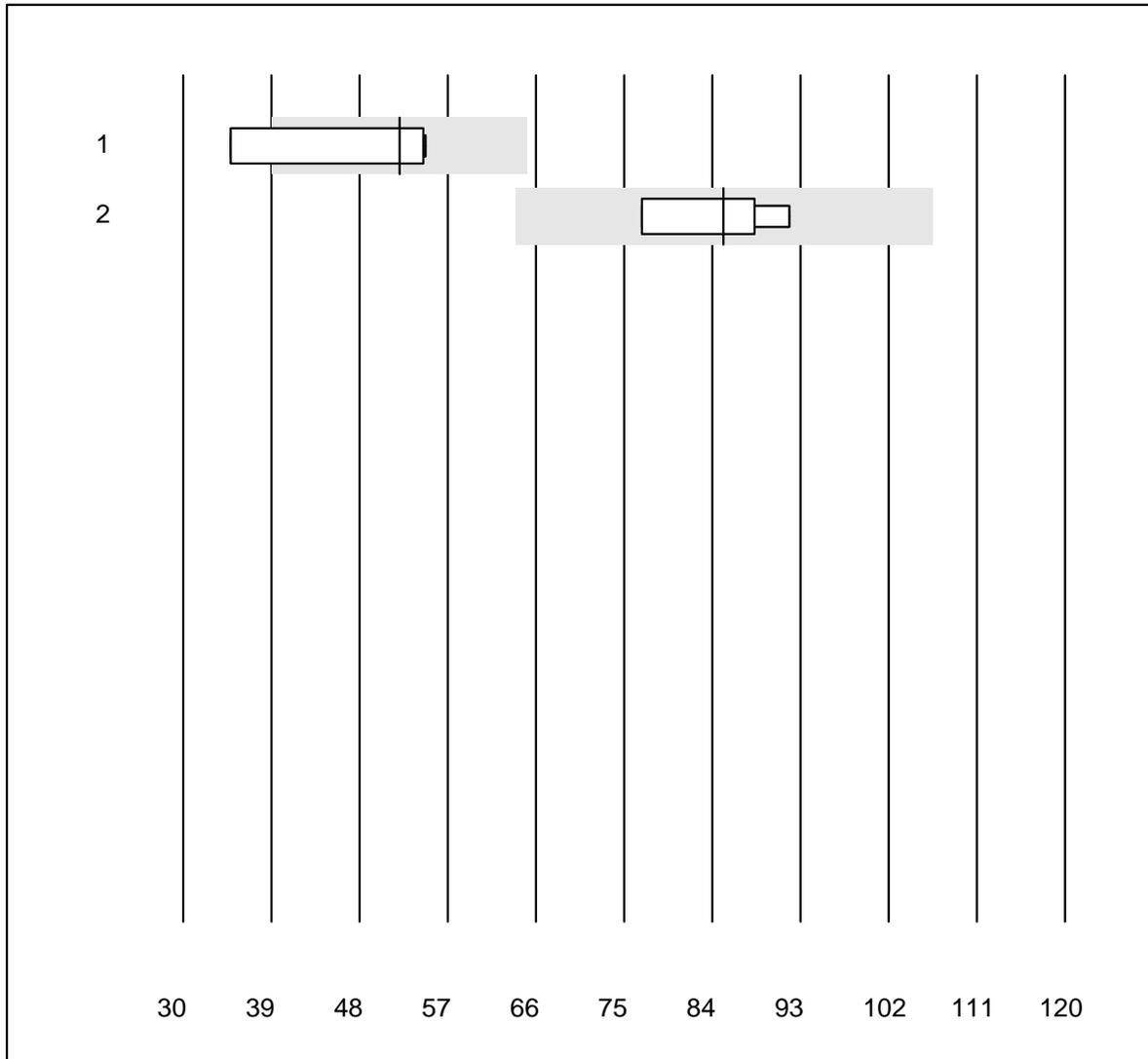
MQ tolerance : 25 %   Freies Testosteron (pmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	4	75.0	25.0	0.0	52.1	19.3	a
2	Other methods	4	100.0	0.0	0.0	85.2	7.9	e*

IGF-1
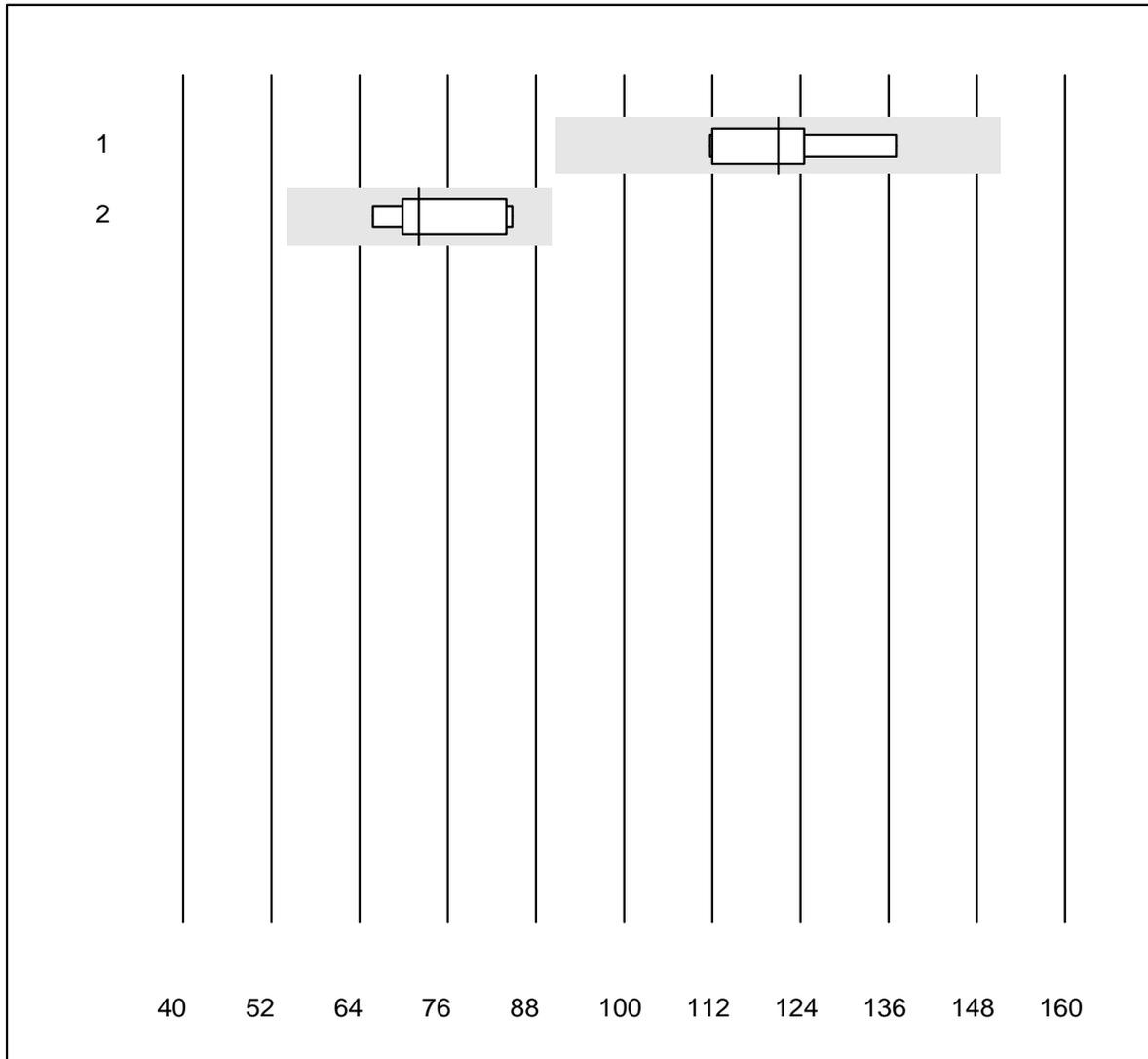
MQ tolerance : 25 %

IGF-1 (µg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Liaison	5	100.0	0.0	0.0	121	8.6	e*
2	Other methods	5	100.0	0.0	0.0	72	11.4	e*

Troponin T CR

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1
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100   116   132   148   164   180   196   212   228   244   260
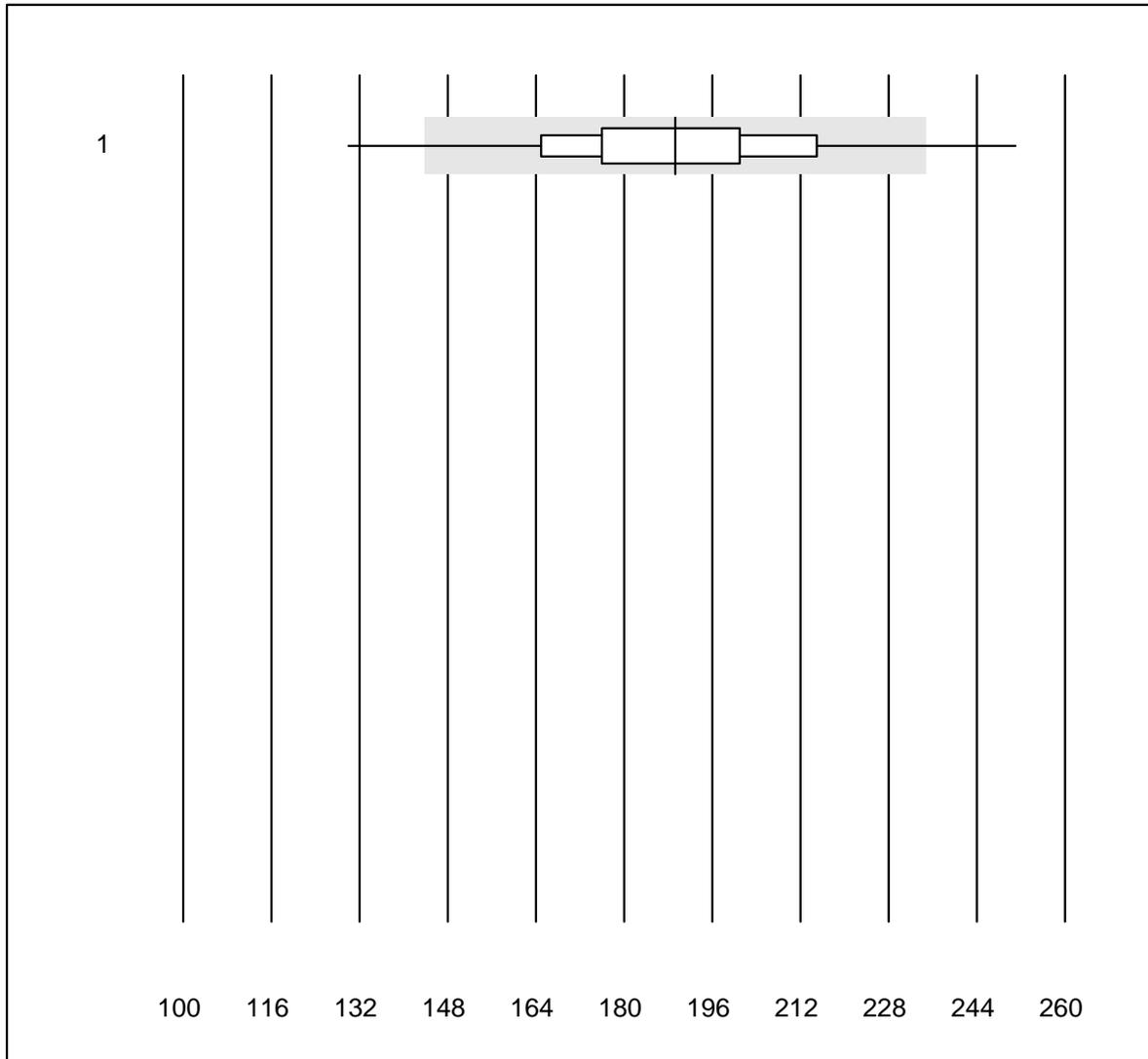
QUALAB tolerance : 24 %   Troponin T CR (ng/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas h 232	1327	97.1	1.8	1.1	189.29	10.1	e

D-dimer CR

0.30	0.33	0.36	0.39	0.42	0.45	0.48	0.51	0.54	0.57	0.60

QUALAB tolerance : 21 %   D-dimer CR (mg/l)
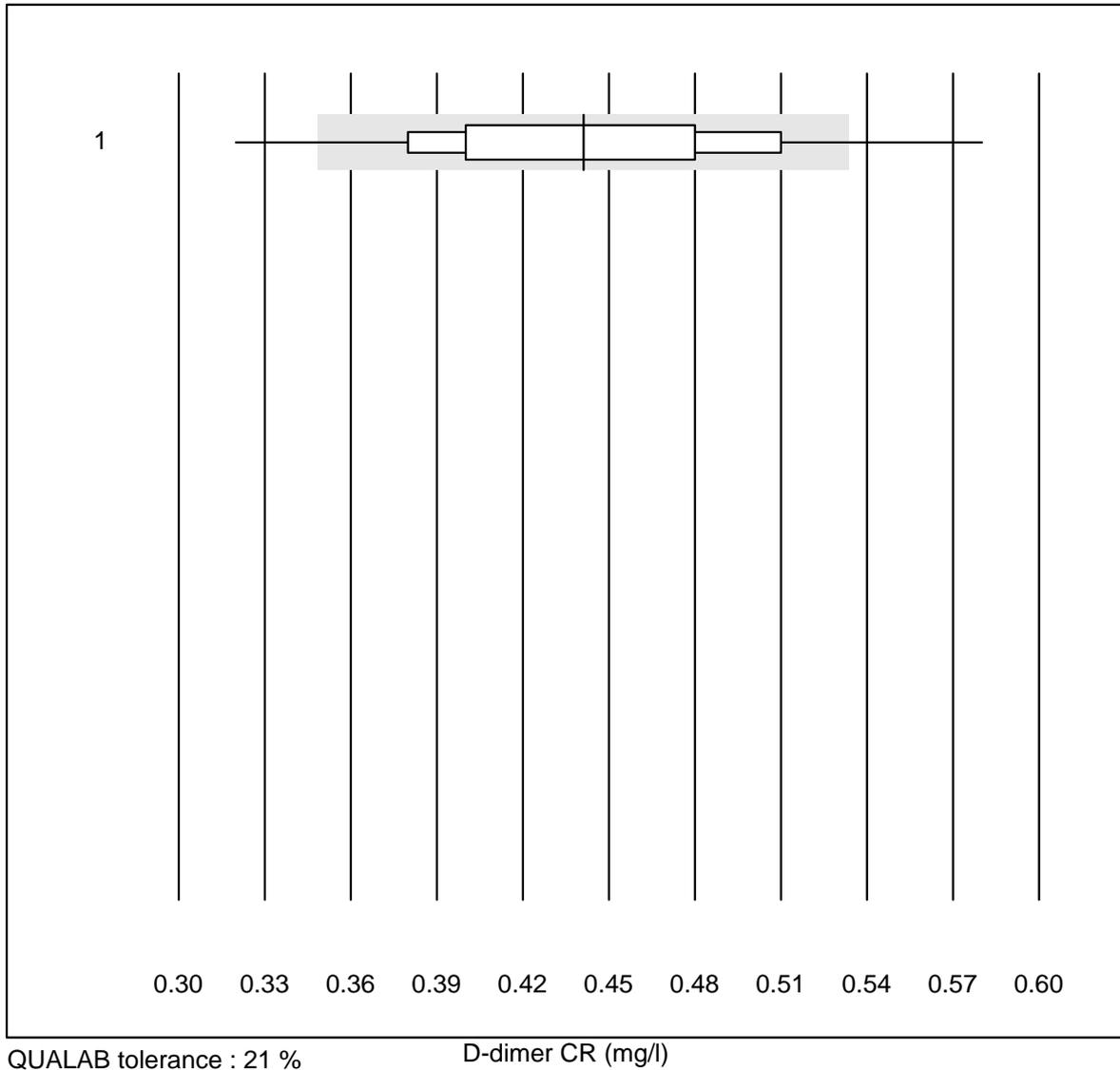
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas h 232	1287	91.5	6.4	2.1	0.44	11.6	e

CKMB- K8

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        1
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| | 7.0 | 8.2 | 9.4 | 10.6 | 11.8 | 13.0 | 14.2 | 15.4 | 16.6 | 17.8 | 19.0 |
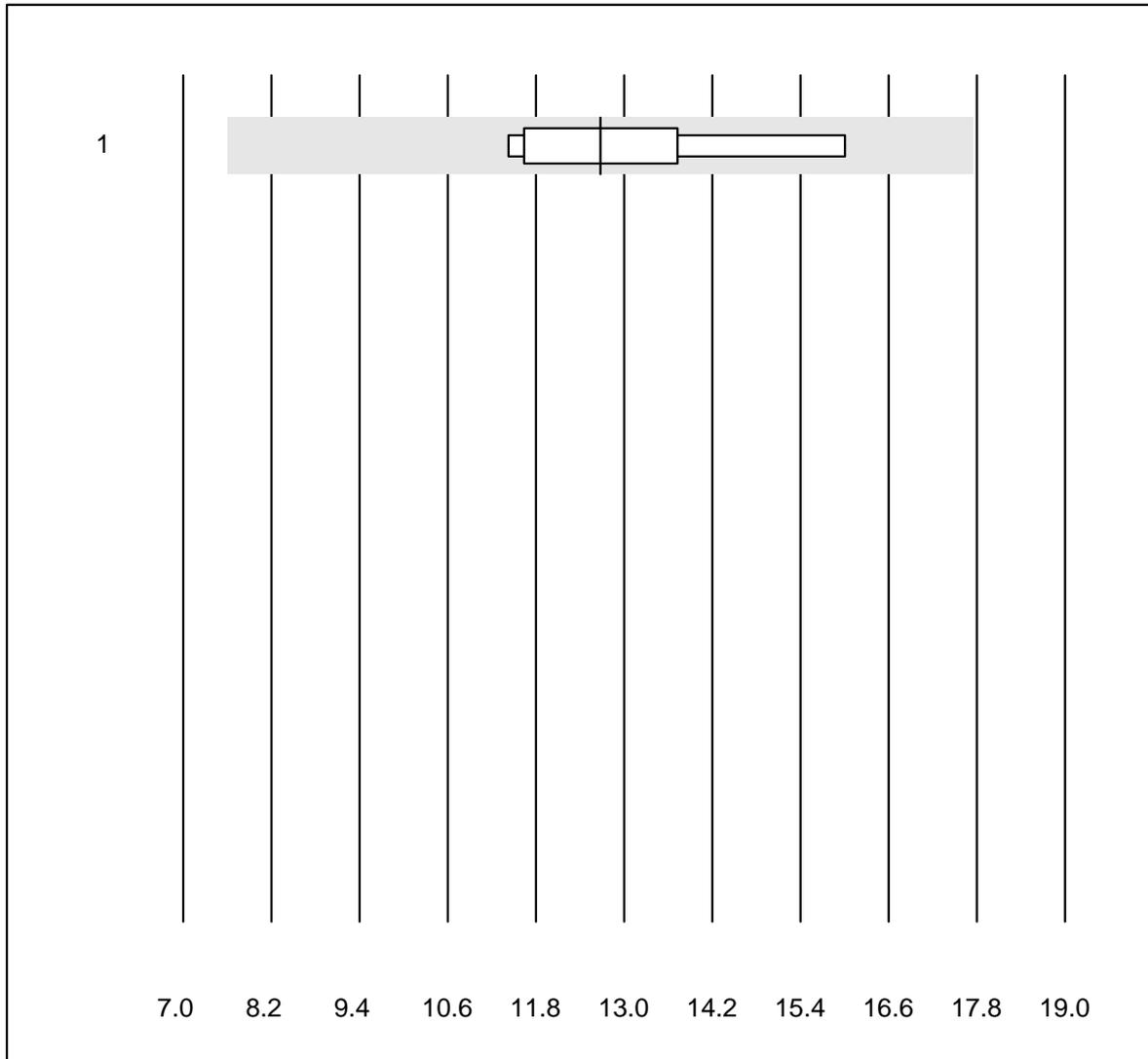
MQ tolerance : 40 %   CKMB- K8 (µg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas h 232	9	77.8	0.0	22.2	12.7	12.0	e

NT-proBNP CR
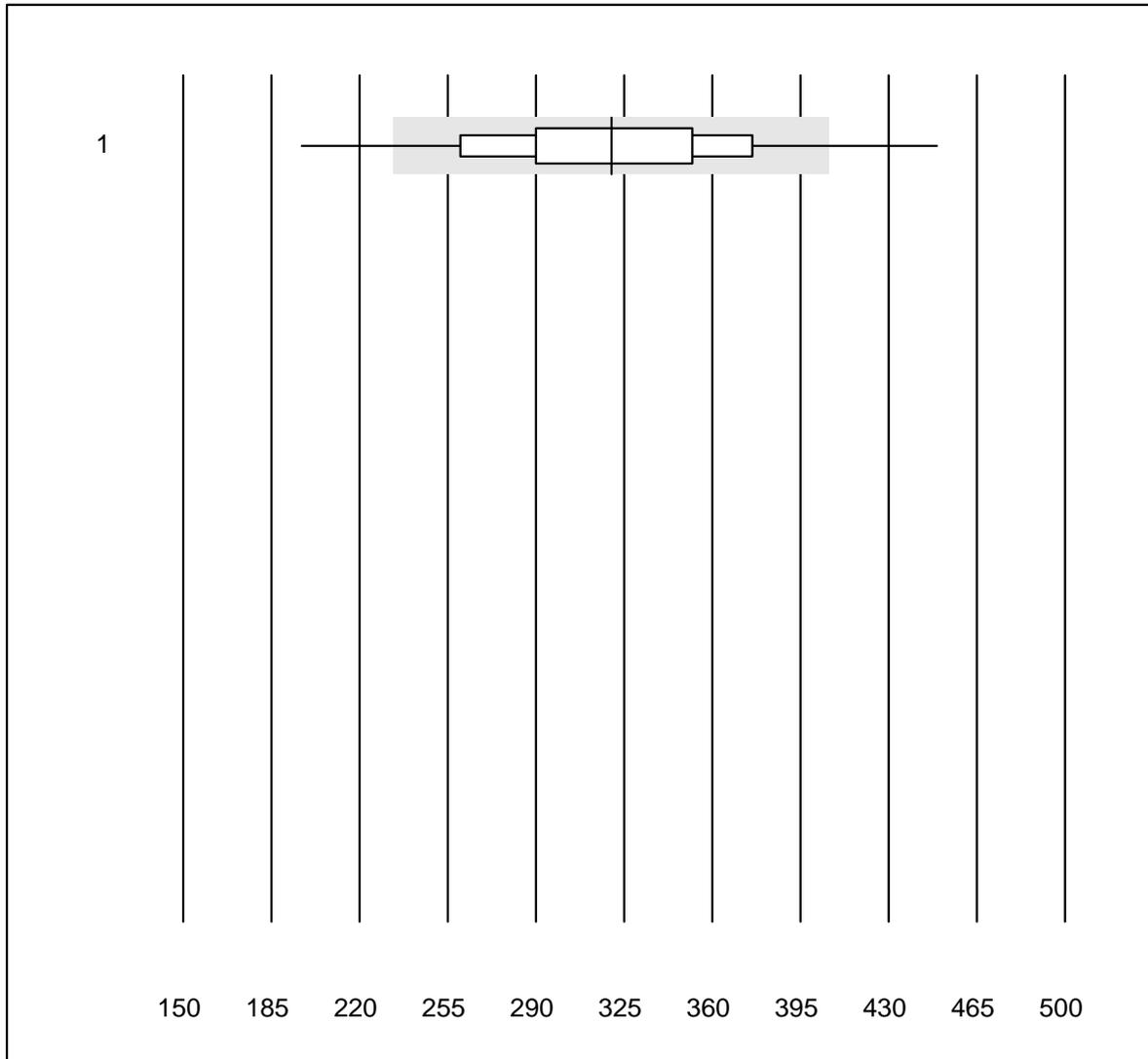
QUALAB tolerance : 27 %

NT-proBNP CR (ng/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas h 232	823	92.7	6.0	1.3	320	14.1	e

PCO2 CCA

| | 2.90 | 3.01 | 3.12 | 3.23 | 3.34 | 3.45 | 3.56 | 3.67 | 3.78 | 3.89 | 4.00 |

QUALAB tolerance : 12 %   PCO2 CCA (kPa)
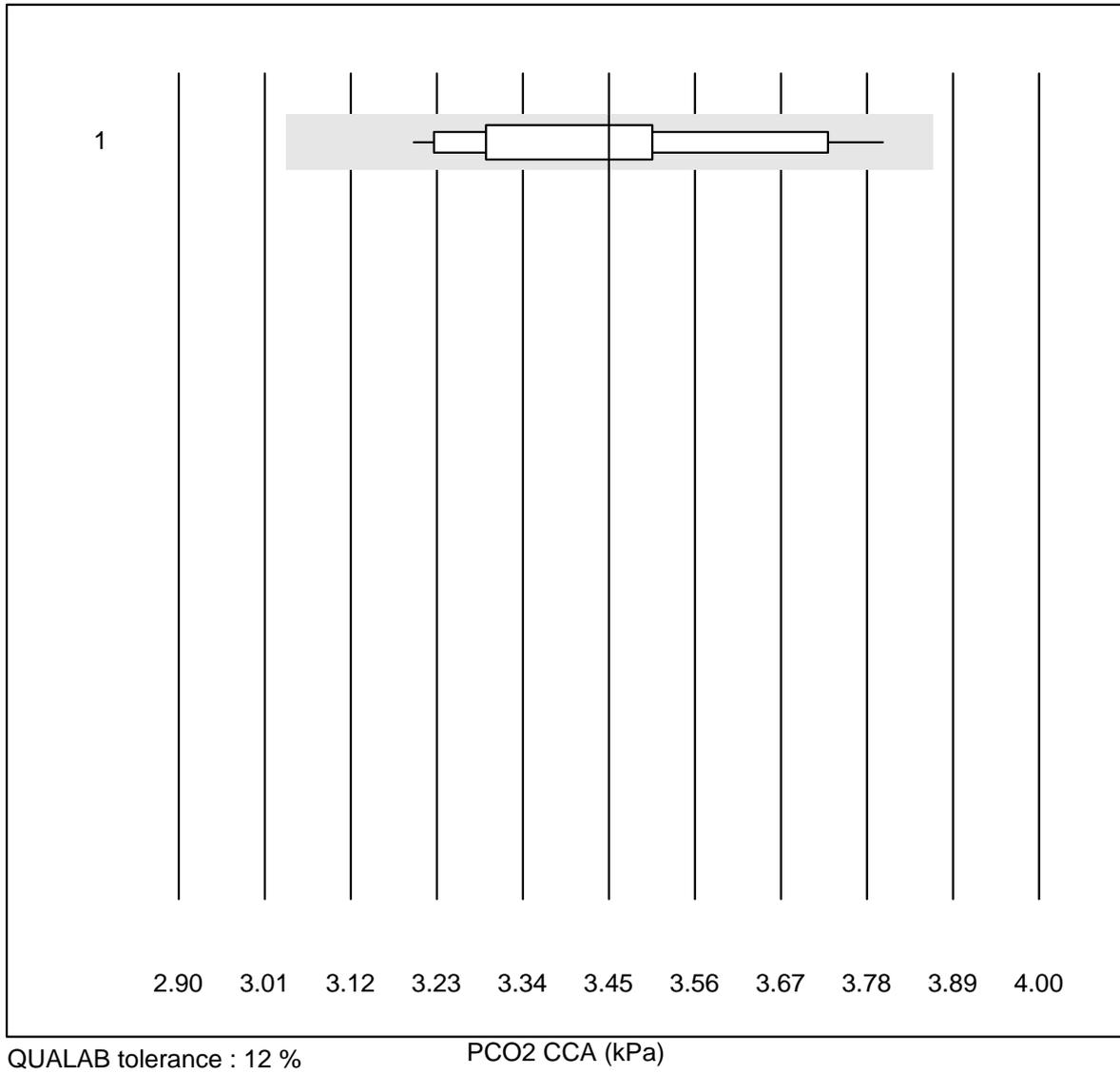
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	OPTI CCA	12	100.0	0.0	0.0	3.45	5.3	e*

PO2 CCA
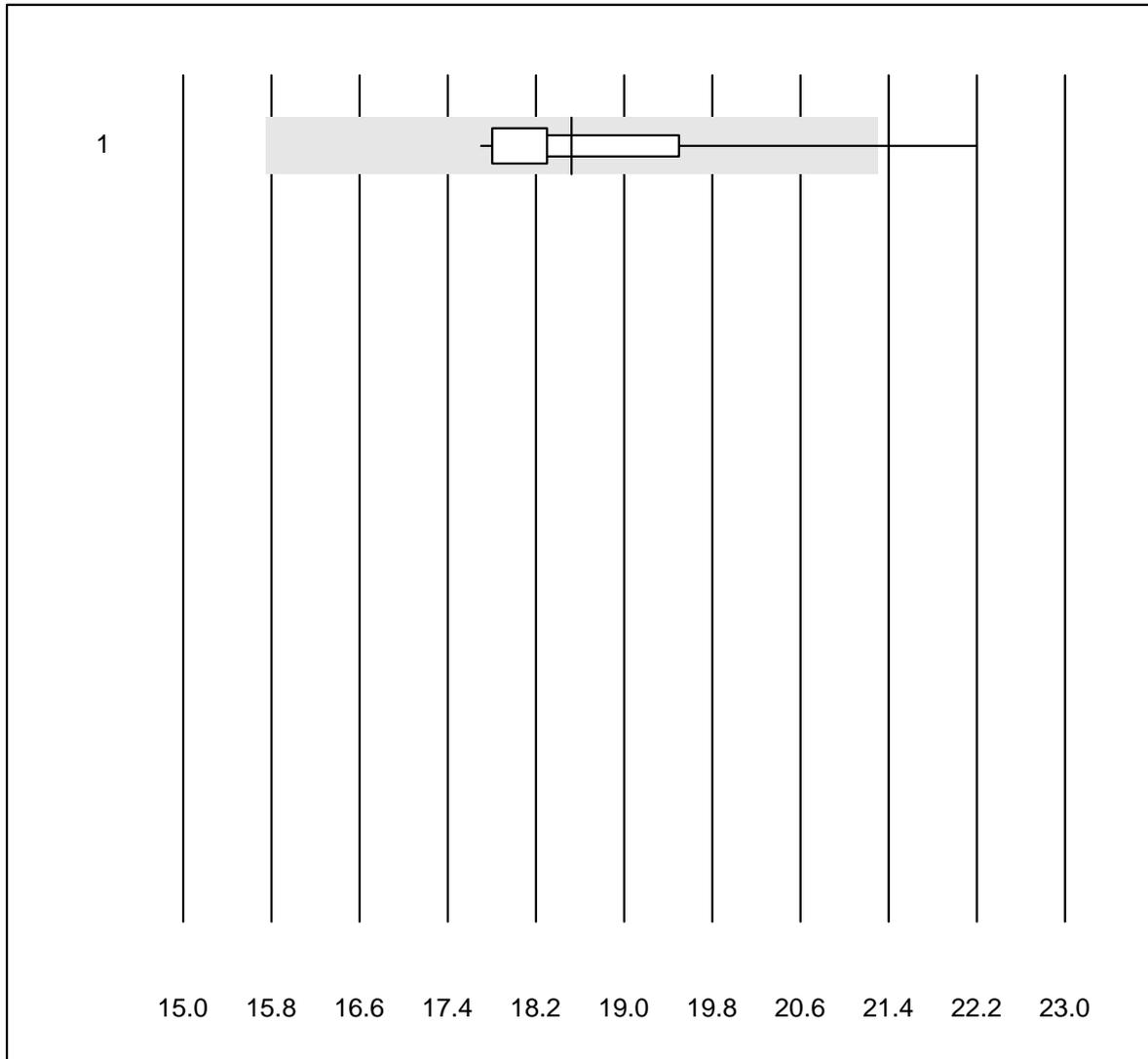
| | 15.0 | 15.8 | 16.6 | 17.4 | 18.2 | 19.0 | 19.8 | 20.6 | 21.4 | 22.2 | 23.0 |

PO2 CCA (kPa)

QUALAB tolerance : 15 %

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	OPTI CCA	12	91.7	8.3	0.0	18.52	6.8	e*

pH CCA

7.50   7.52   7.54   7.56   7.58   7.60   7.62   7.64   7.66   7.68   7.70

QUALAB tolerance : 1 %   pH CCA ()
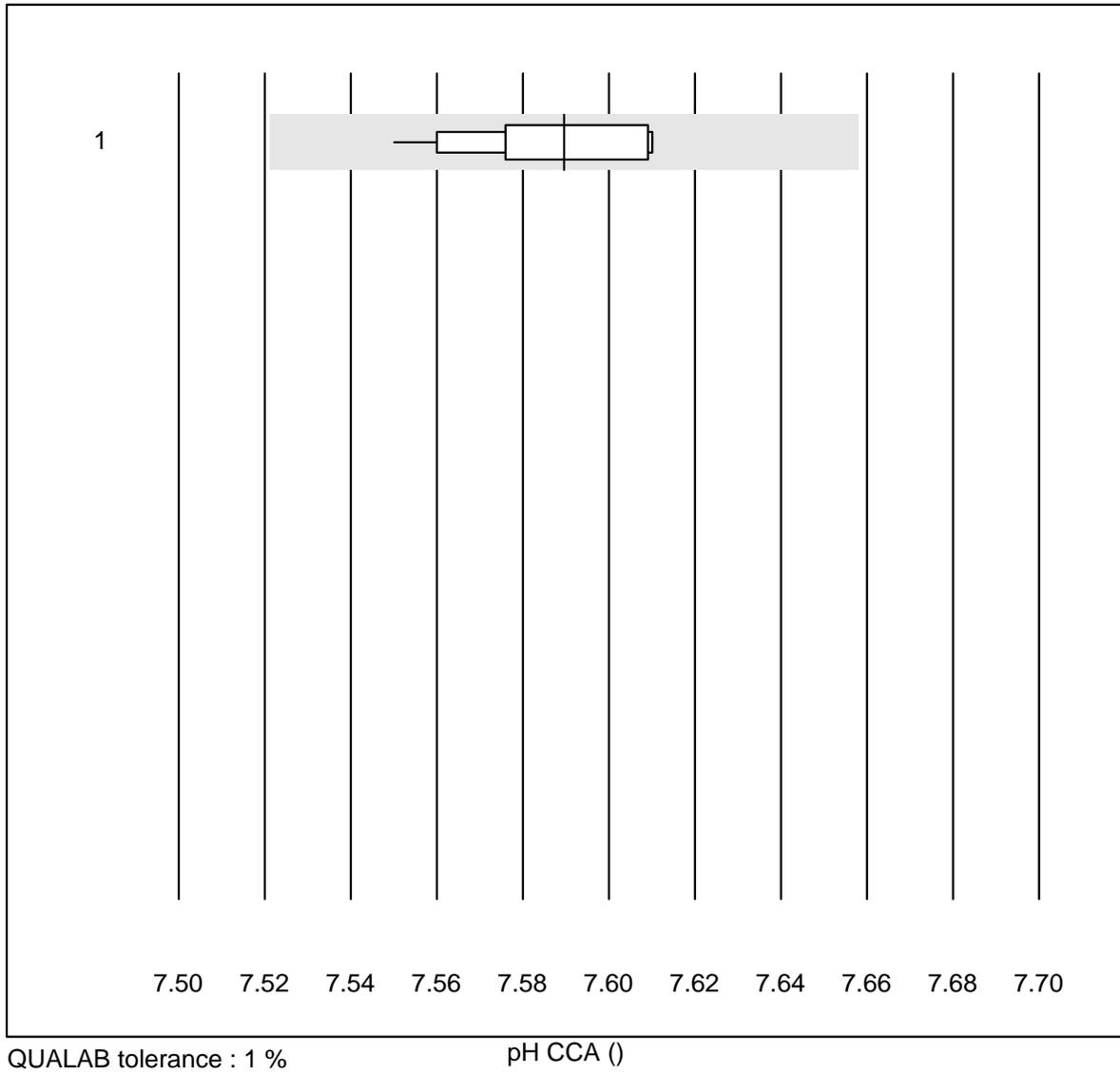
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	OPTI CCA	11	100.0	0.0	0.0	7.59	0.3	e

Potassium CCA

5.50 5.58 5.66 5.74 5.82 5.90 5.98 6.06 6.14 6.22 6.30
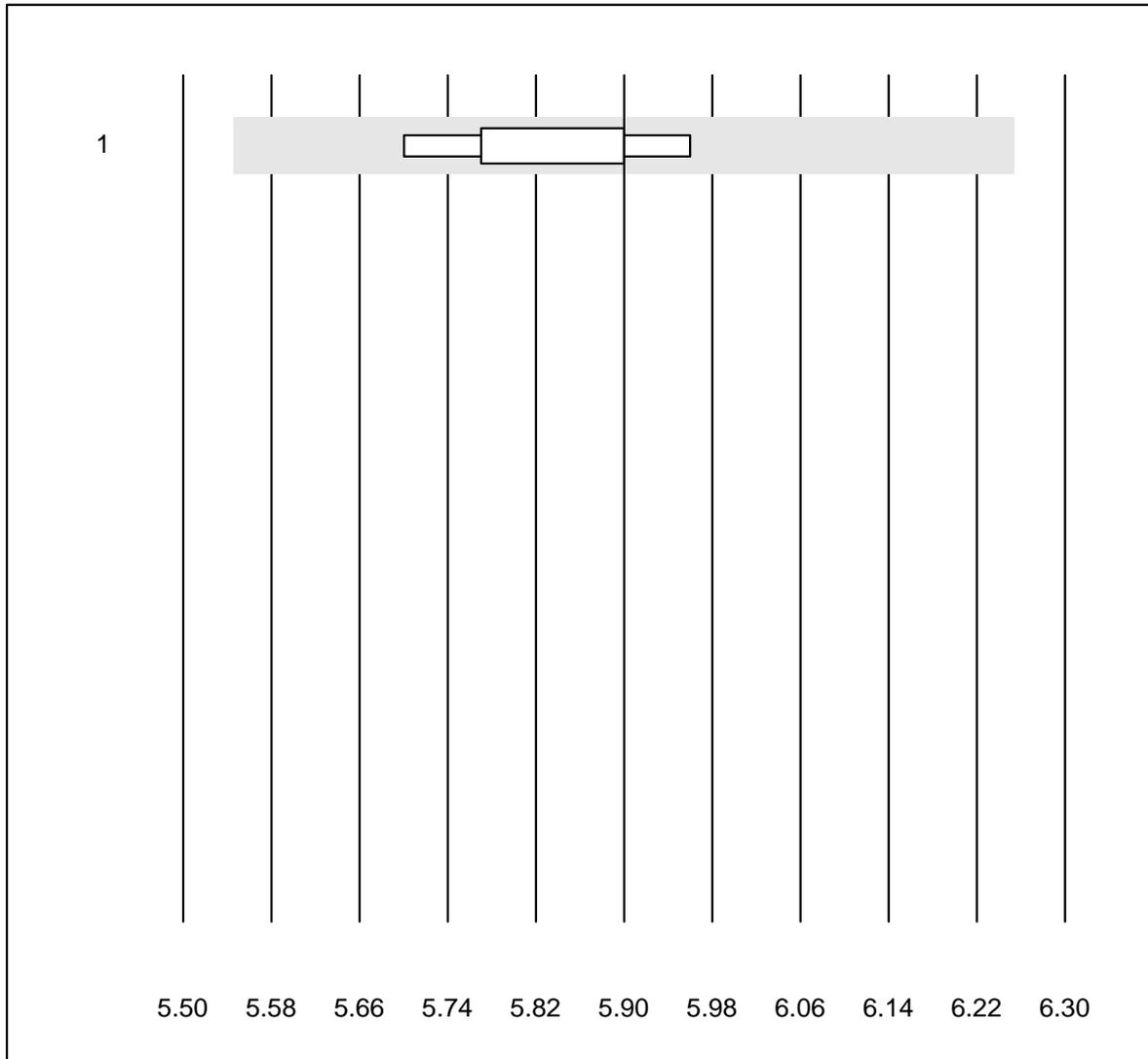
QUALAB tolerance : 6 %

Potassium CCA (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	OPTI CCA	5	100.0	0.0	0.0	5.9	1.8	e*

Sodium CCA

1

150.0 152.5 155.0 157.5 160.0 162.5 165.0 167.5 170.0 172.5 175.0
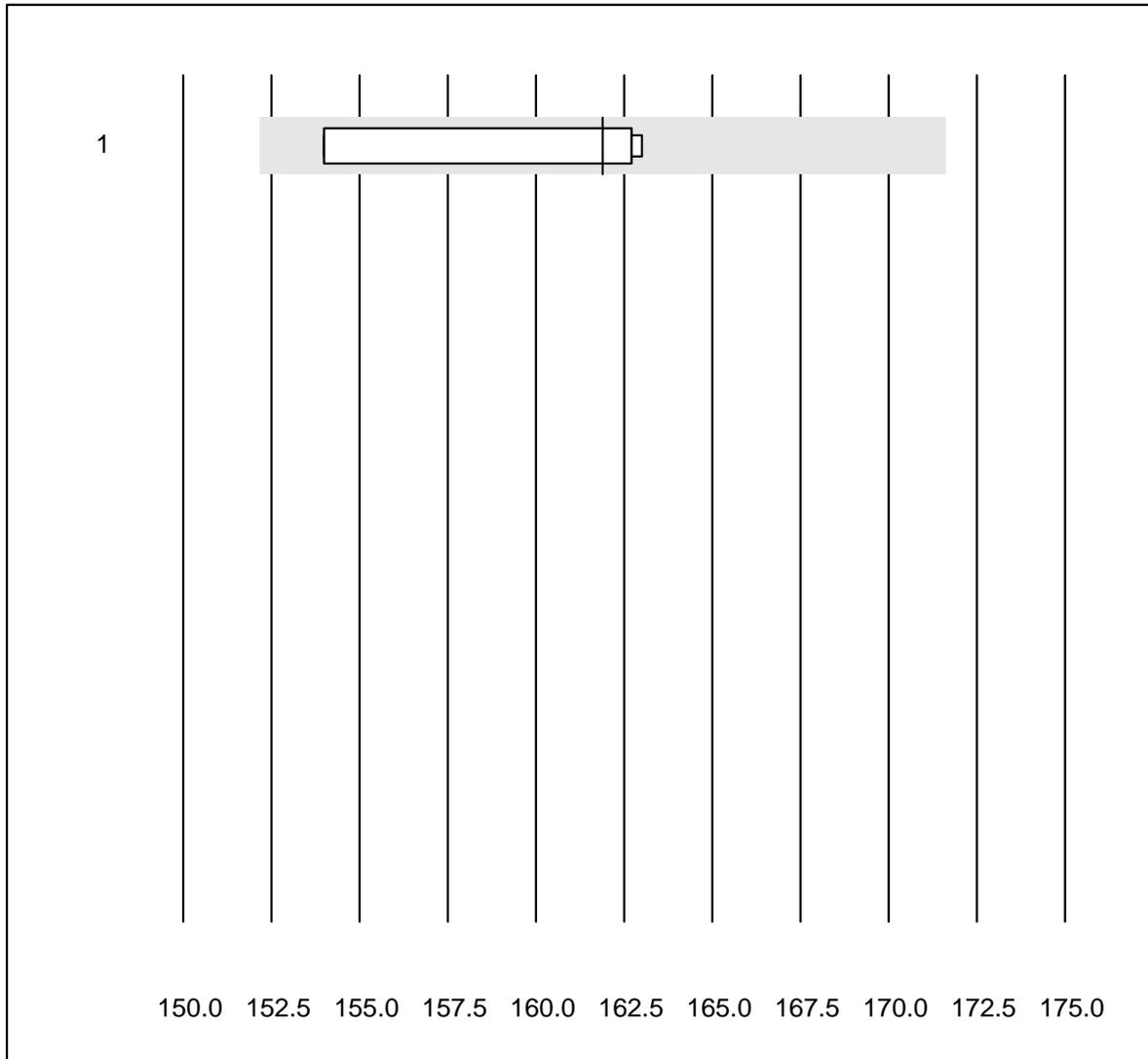
QUALAB tolerance : 6 %   Sodium CCA (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	OPTI CCA	4	100.0	0.0	0.0	161.9	2.6	e*

Ferritin

QUALAB tolerance : 24 %

Ferritin (µg/l)
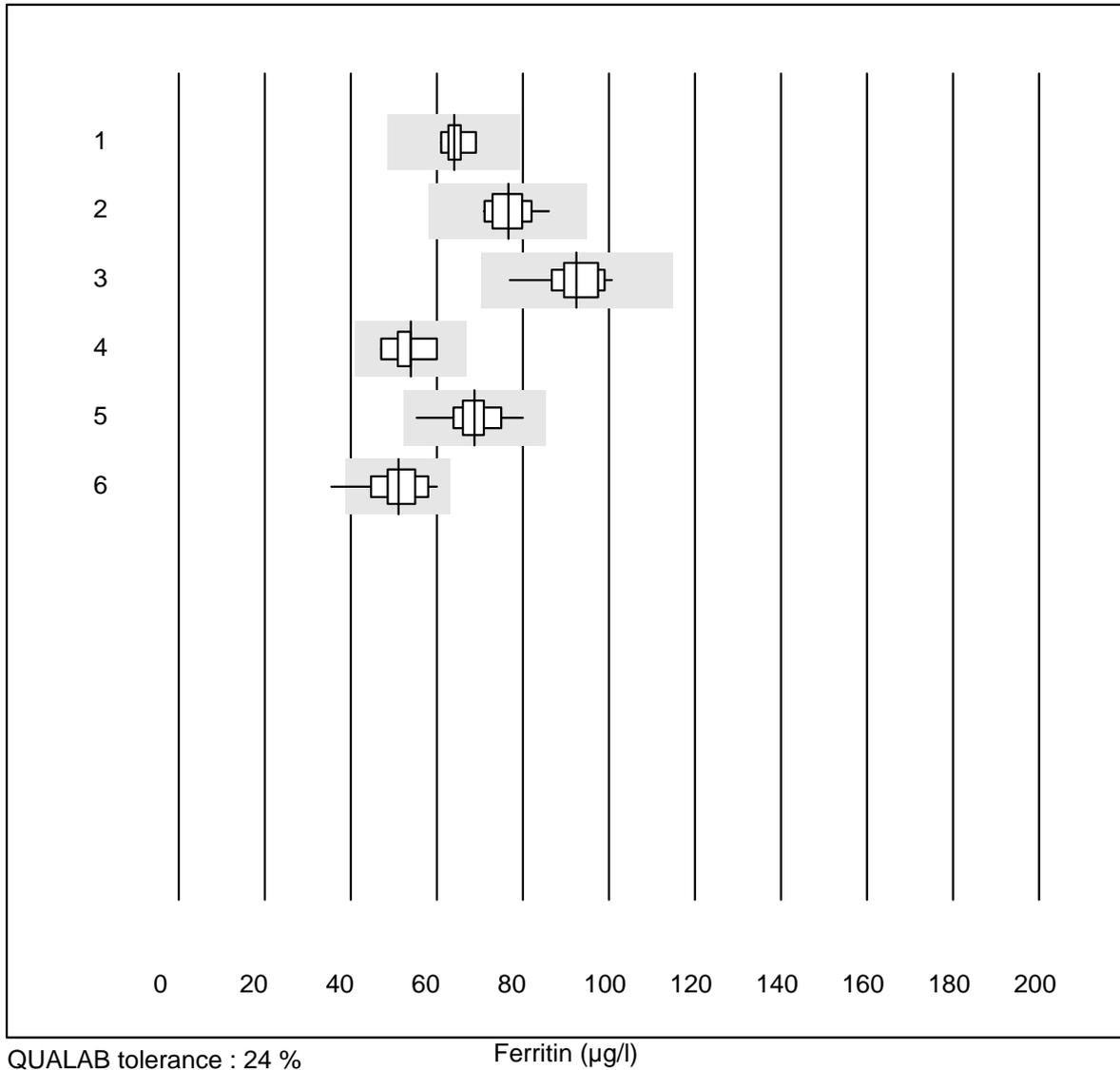
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Beckman	8	100.0	0.0	0.0	63.95	4.4	e
2	Cobas E / Elecsys	18	100.0	0.0	0.0	76.57	5.3	e
3	Architect	12	100.0	0.0	0.0	92.52	7.0	e
4	Mini Vidas	9	100.0	0.0	0.0	54.00	7.7	e
5	AFIAS	43	100.0	0.0	0.0	68.71	7.4	e
6	Eurolyser	17	94.1	5.9	0.0	51.02	10.9	e

6 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Vitamin B12
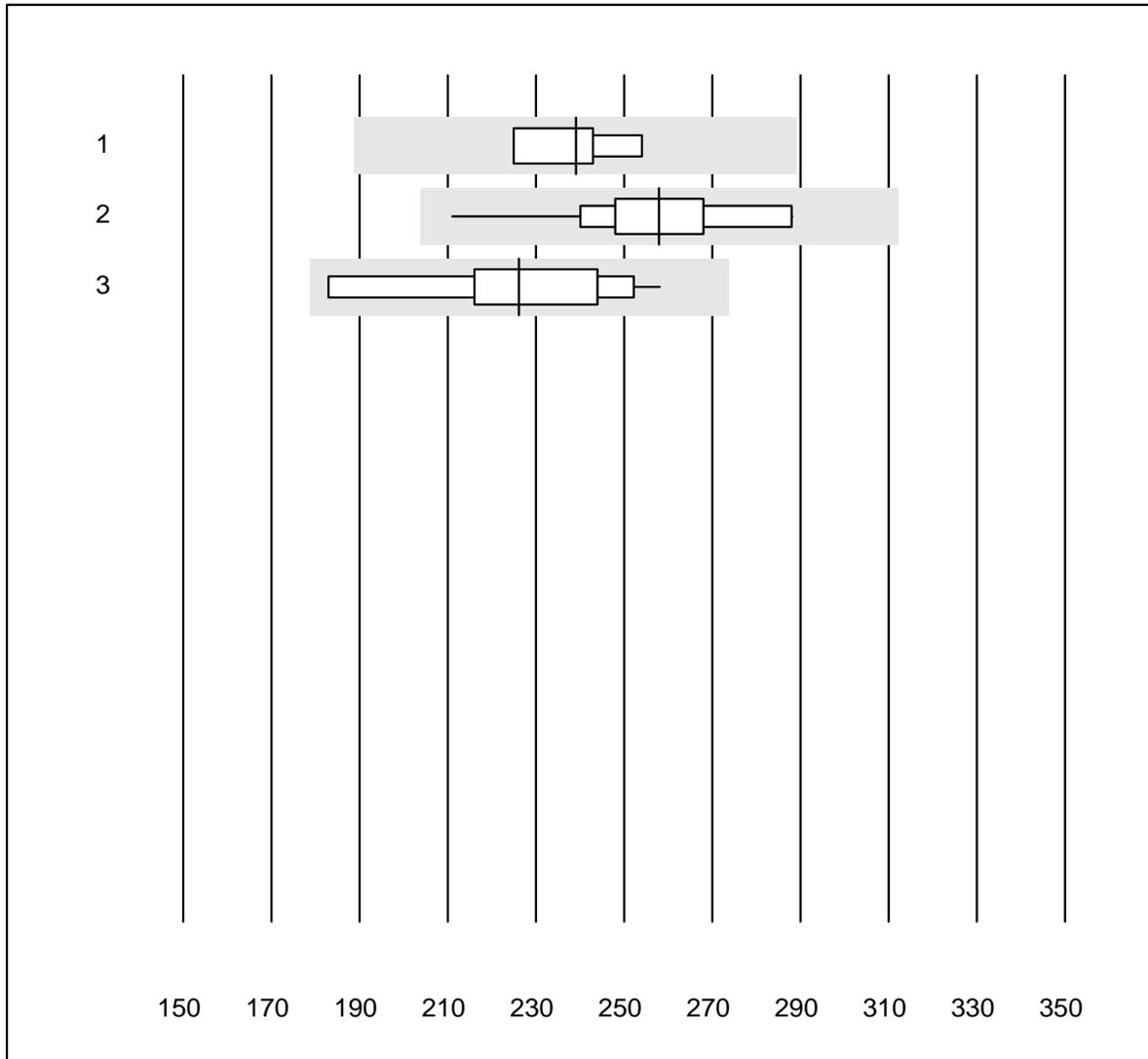
QUALAB tolerance : 21 %

Vitamin B12 (pmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	4	100.0	0.0	0.0	239.00	5.1	e*
2	Cobas E / Elecsys	18	100.0	0.0	0.0	257.97	7.1	e
3	Architect	11	90.9	0.0	9.1	226.20	9.8	e*

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Folate
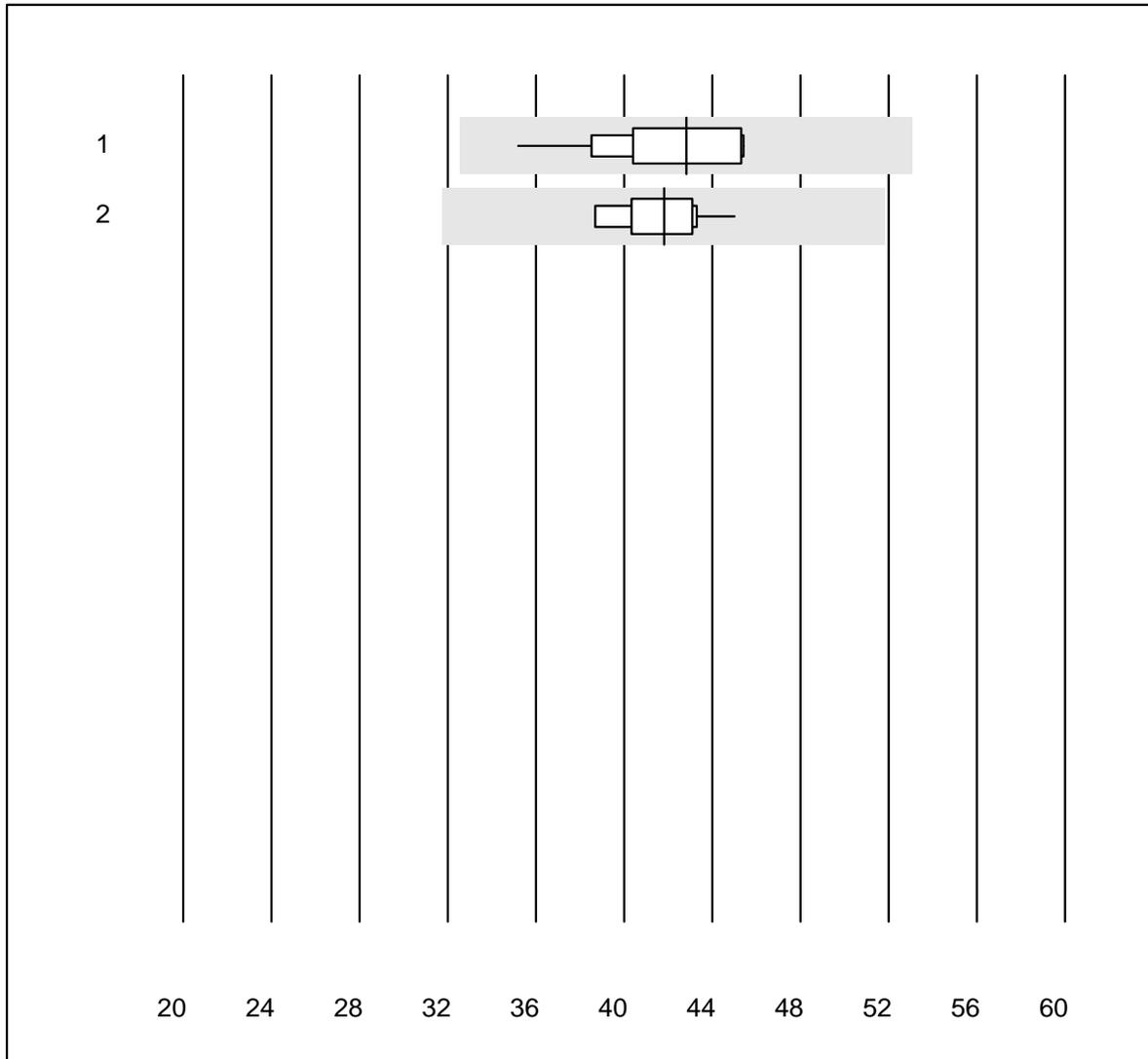
QUALAB tolerance : 24 %

Folate (nmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas E / Elecsys	18	100.0	0.0	0.0	42.81	7.4	e
2	Architect	10	100.0	0.0	0.0	41.80	4.7	e

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Holotranscobalamine
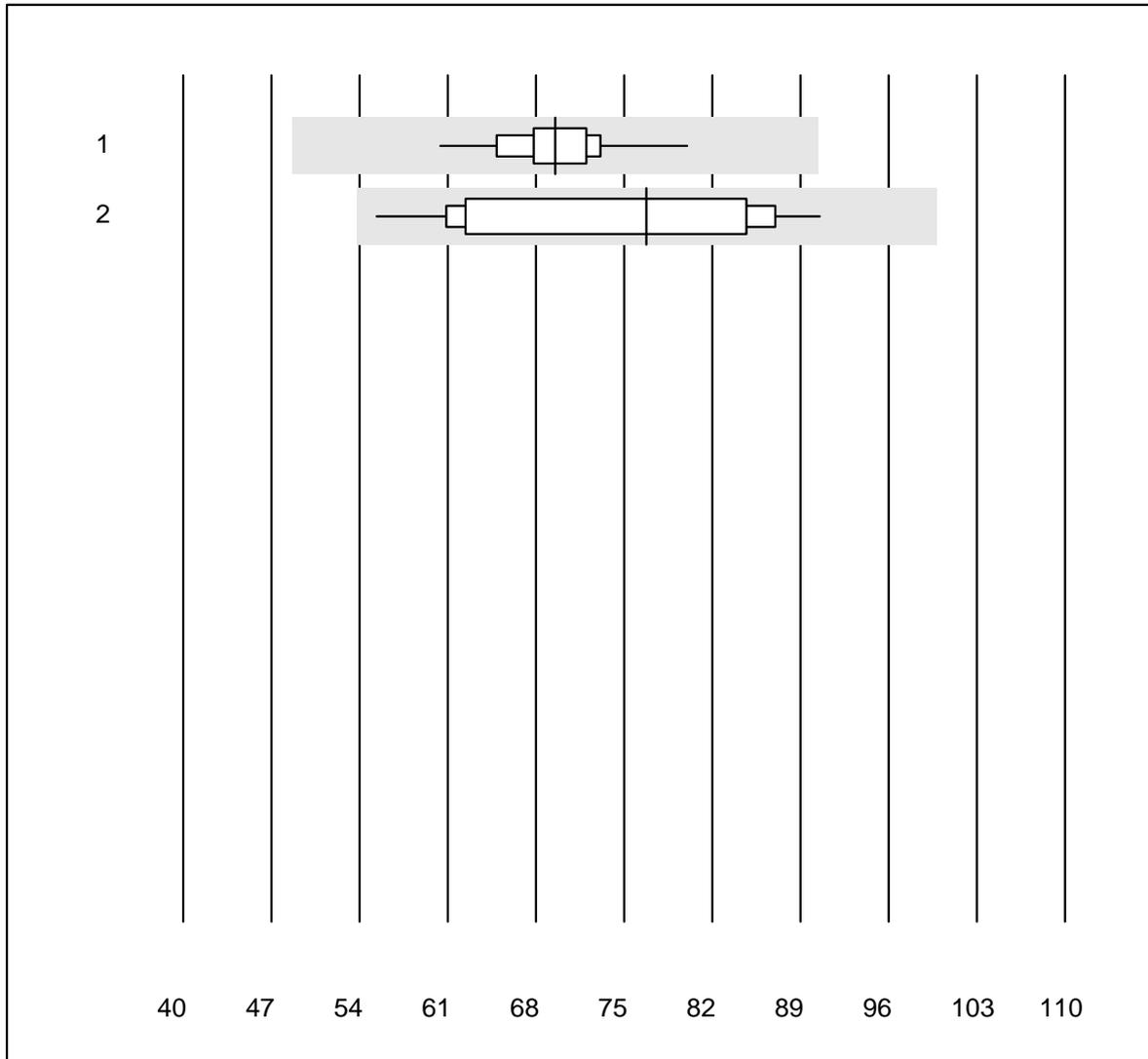
MQ tolerance : 30 %

Holotranscobalamine (pmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Architect	13	100.0	0.0	0.0	69.5	6.8	e
2	Other methods	22	95.5	0.0	4.5	76.8	15.4	e

Bilirubin total Neo
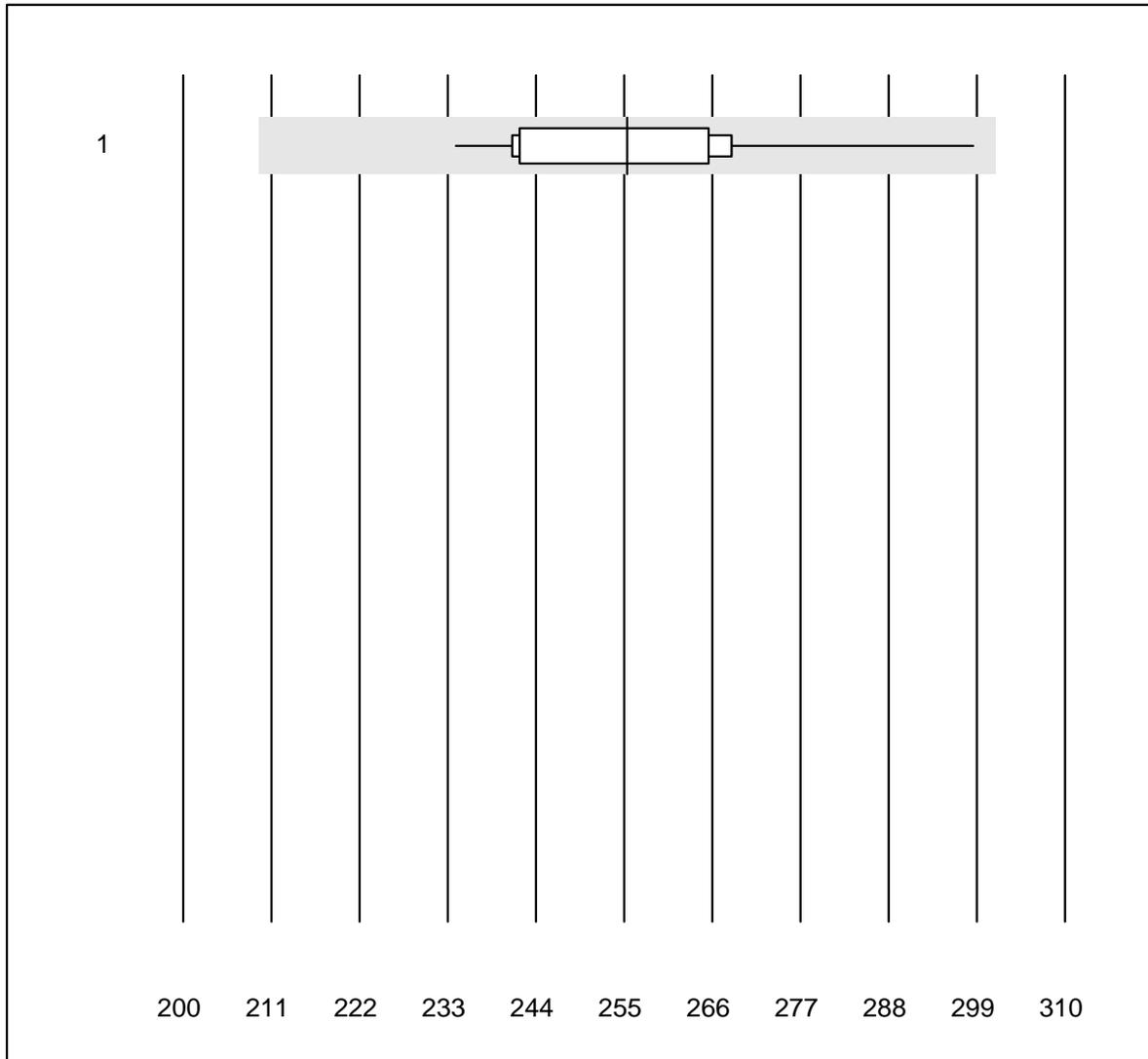
QUALAB tolerance : 18 %
Bilirubin total Neo (µmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	15	100.0	0.0	0.0	255	6.2	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)
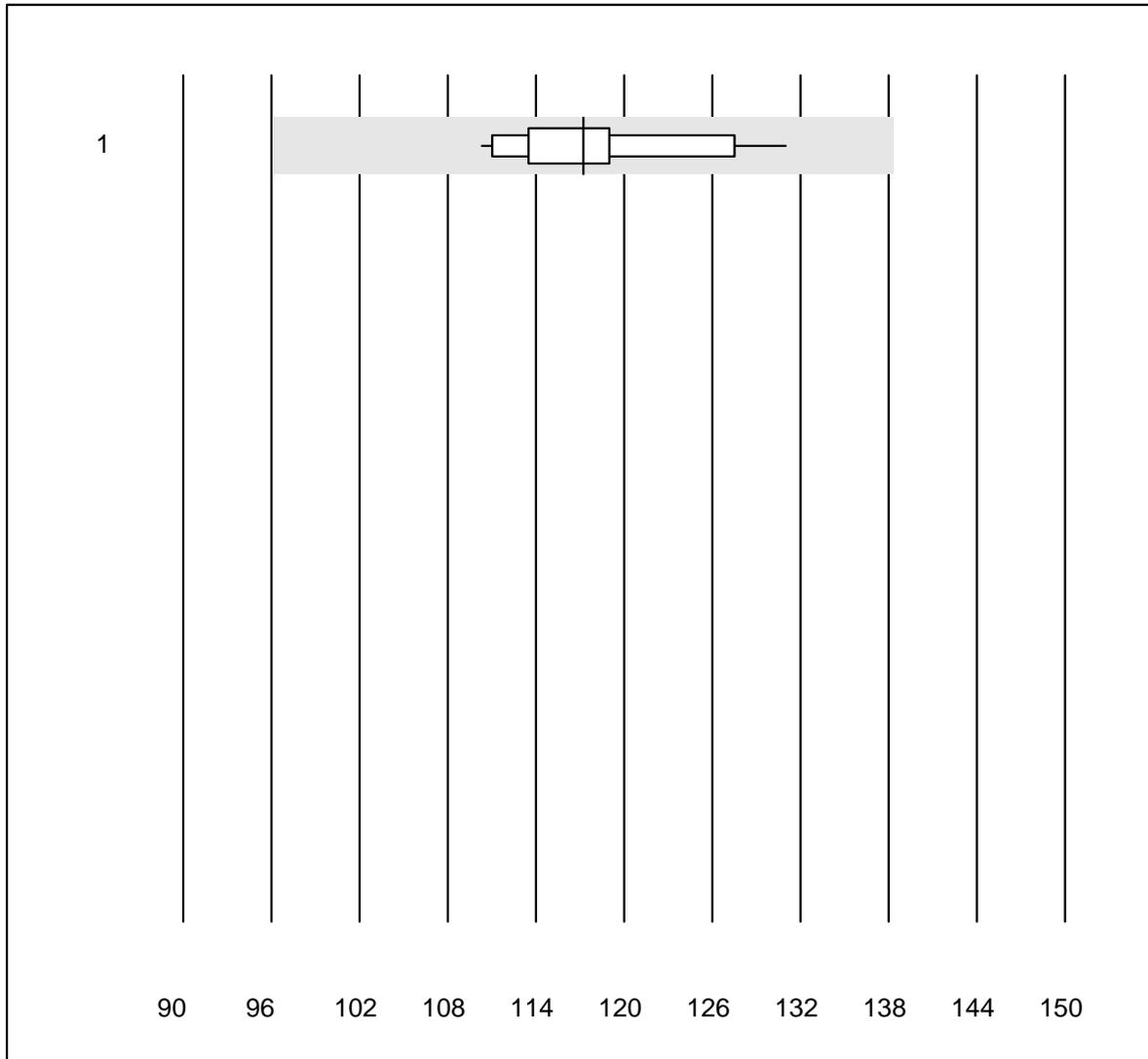
Bilirubin direct


QUALAB tolerance : 18 %   Bilirubin direct (µmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	16	100.0	0.0	0.0	117	4.7	e

One result was submitted but not published because the method group was too small. (<4 results per group)

Bilirubin neonatal
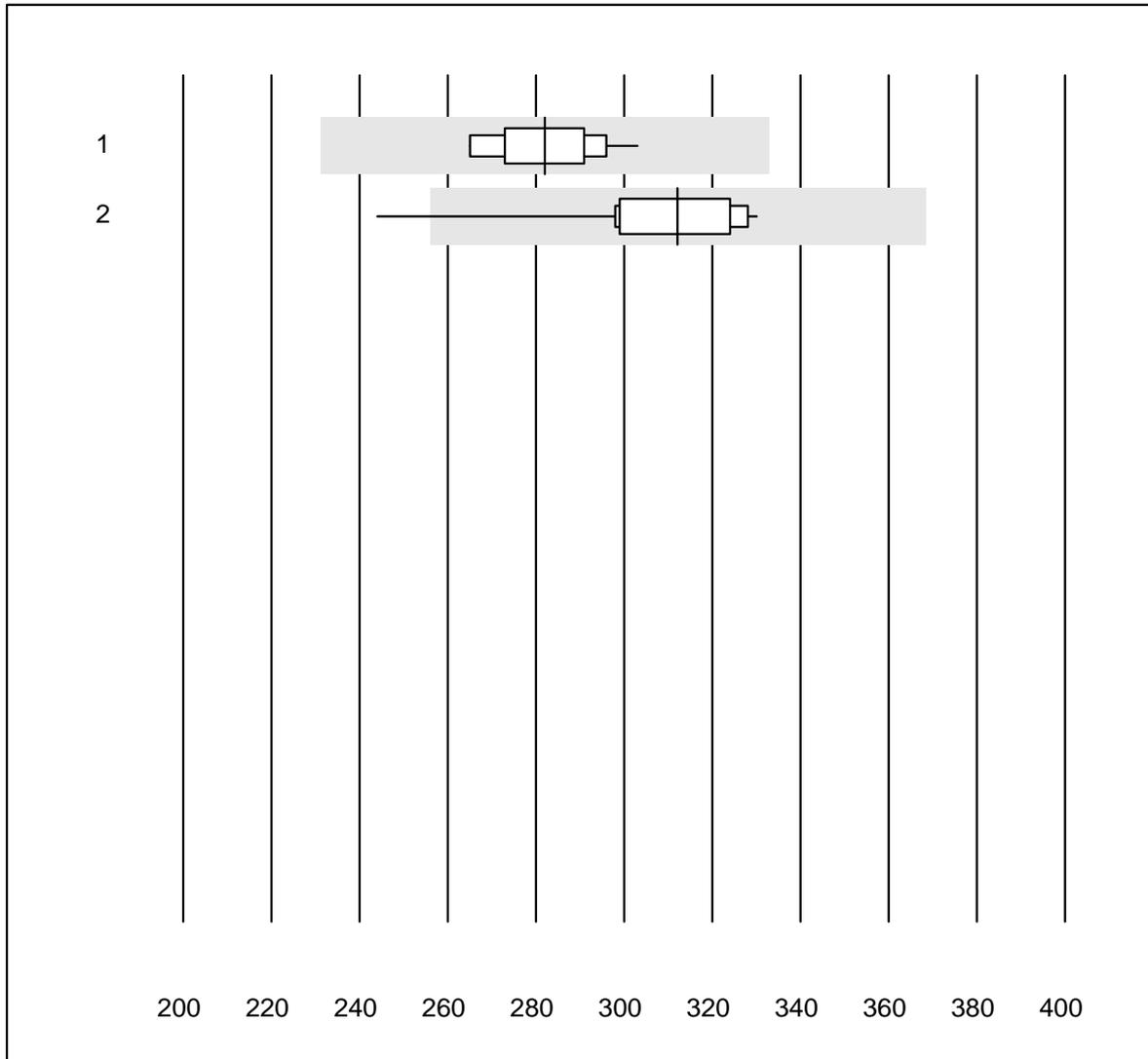
QUALAB tolerance : 18 %   Bilirubin neonatal (µmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ABL700/800	10	100.0	0.0	0.0	282	4.2	e
2	Other methods	12	91.7	8.3	0.0	312	7.6	e*

PSA
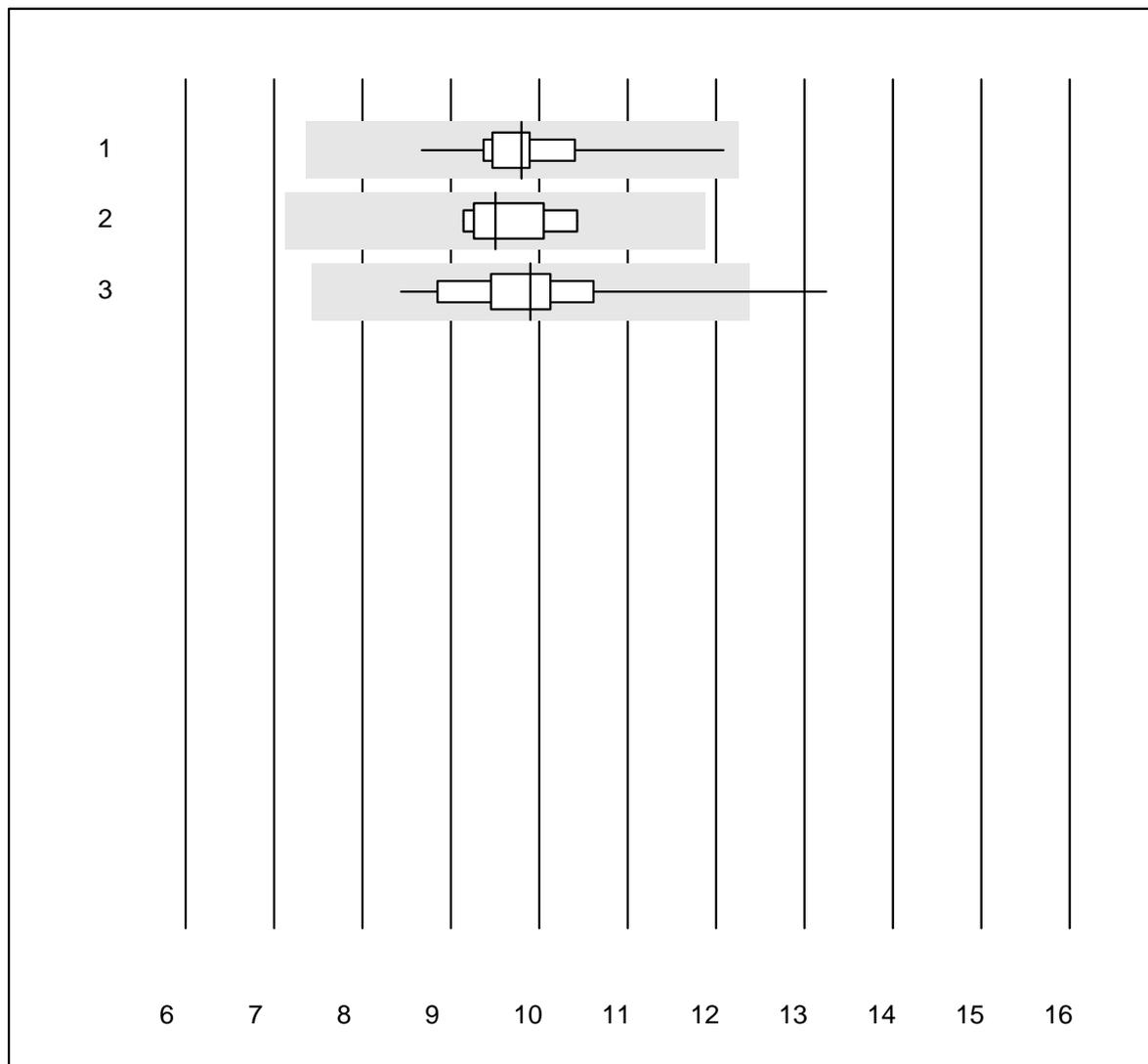
QUALAB tolerance : 25 %

PSA (µg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas E / Elecsys	17	100.0	0.0	0.0	9.80	7.1	e
2	Architect	7	100.0	0.0	0.0	9.50	4.7	e
3	AFIAS	25	96.0	4.0	0.0	9.90	9.5	e

9 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

free PSA
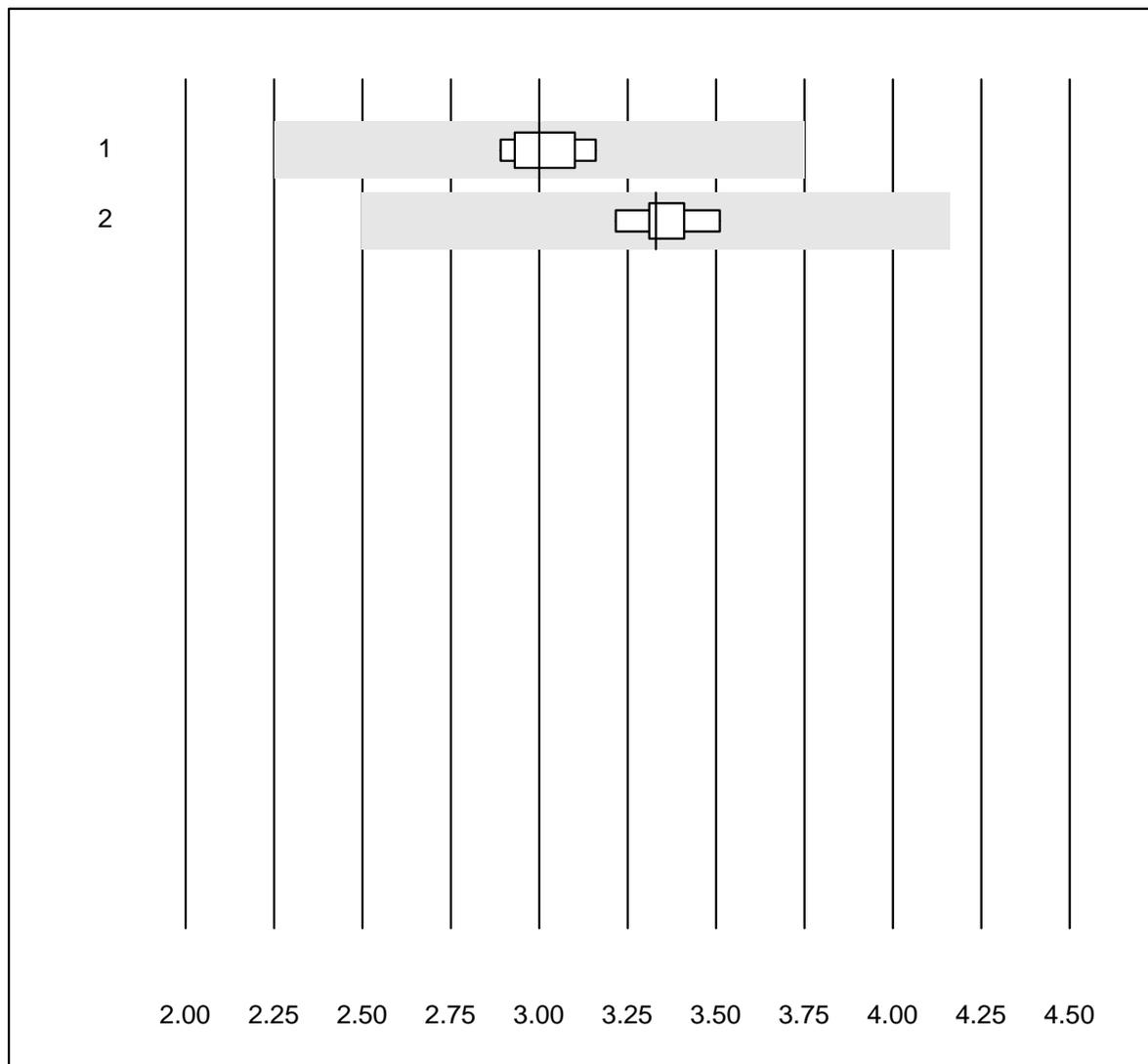
QUALAB tolerance : 25 %

free PSA (µg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas E / Elecsys	9	100.0	0.0	0.0	3.00	3.1	e
2	Architect	5	100.0	0.0	0.0	3.33	3.3	e

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

CEA

5.0   5.8   6.6   7.4   8.2   9.0   9.8   10.6   11.4   12.2   13.0
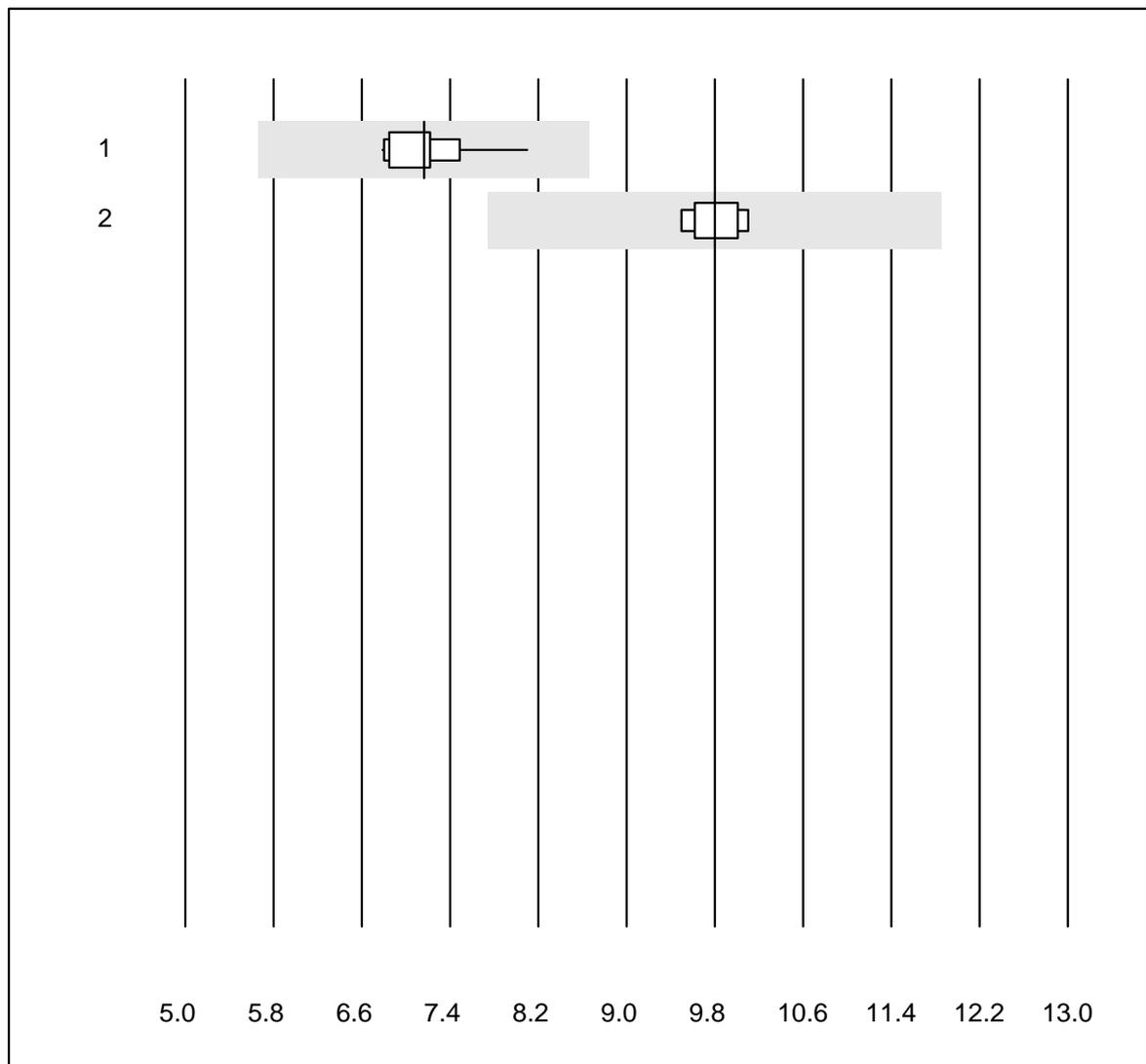
QUALAB tolerance : 21 %

CEA (µg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas E / Elecsys	12	100.0	0.0	0.0	7.2	5.1	e
2	Architect	6	100.0	0.0	0.0	9.8	2.4	e

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

CA 125
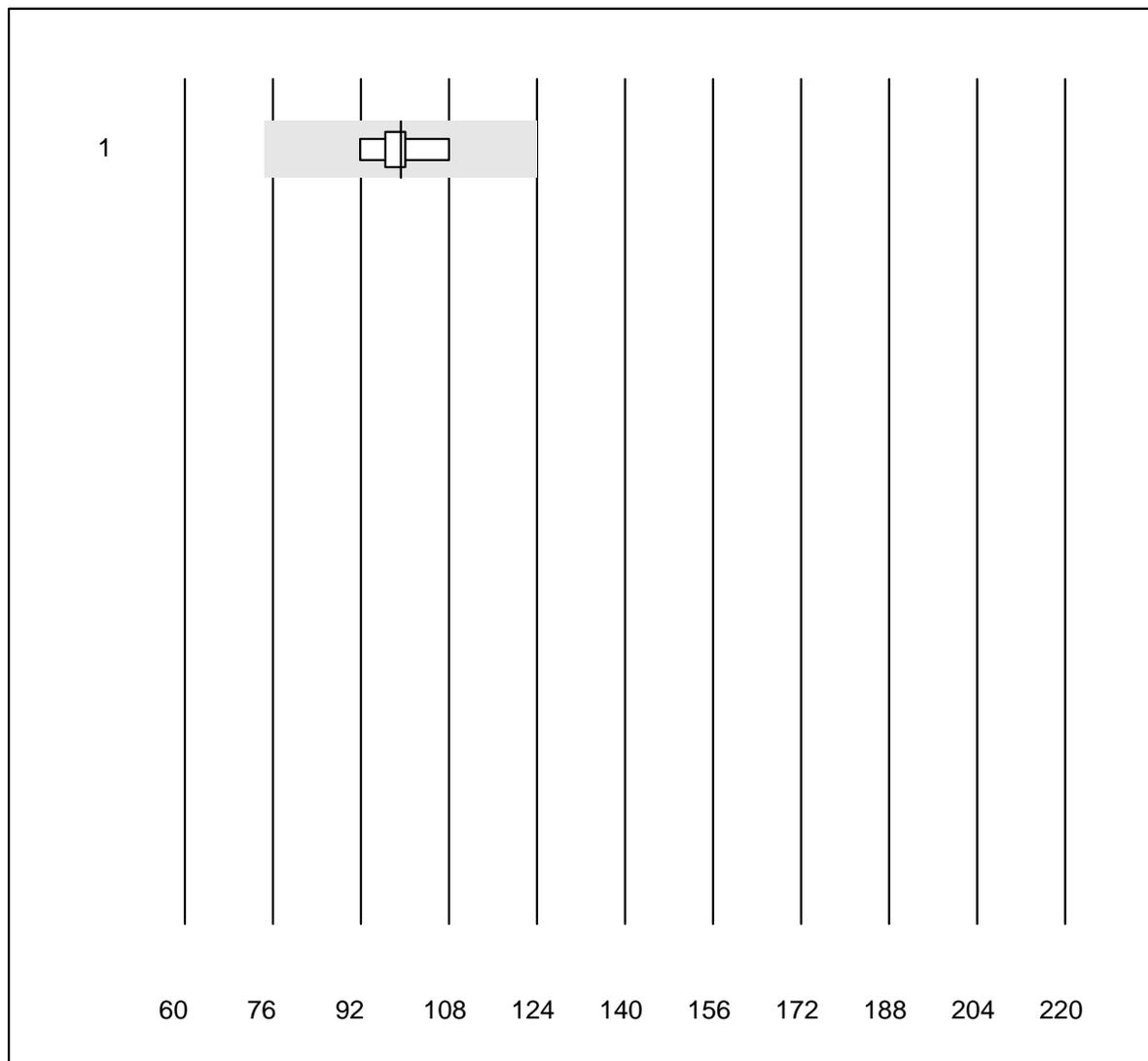
MQ tolerance : 25 %

CA 125 (kIU/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas E / Elecsys	7	100.0	0.0	0.0	99.2	4.9	e

8 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

CA 19-9
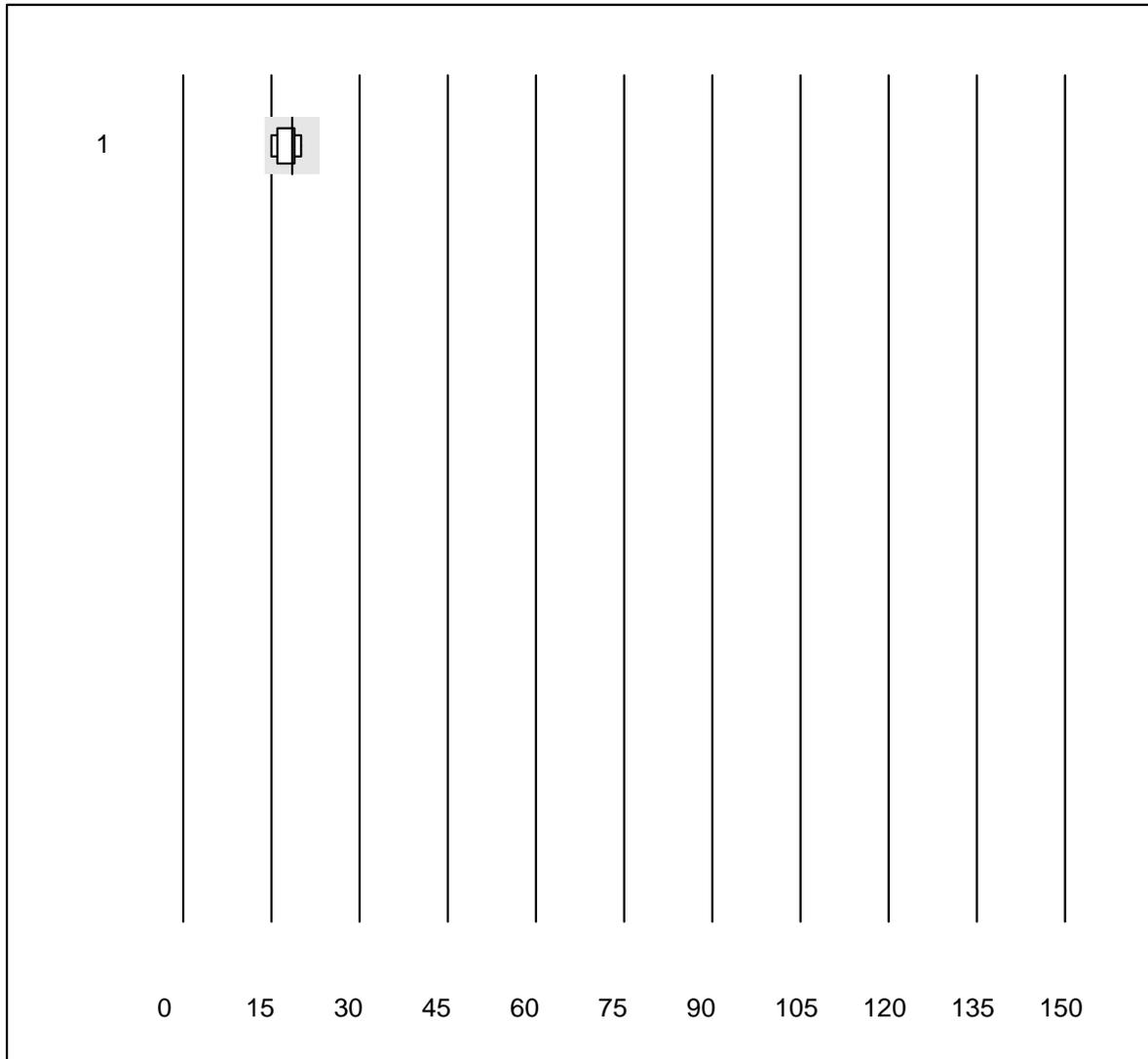
MQ tolerance : 25 %

CA 19-9 (kIU/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas E / Elecsys	6	100.0	0.0	0.0	18.5	10.7	e*

8 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

CA 15-3
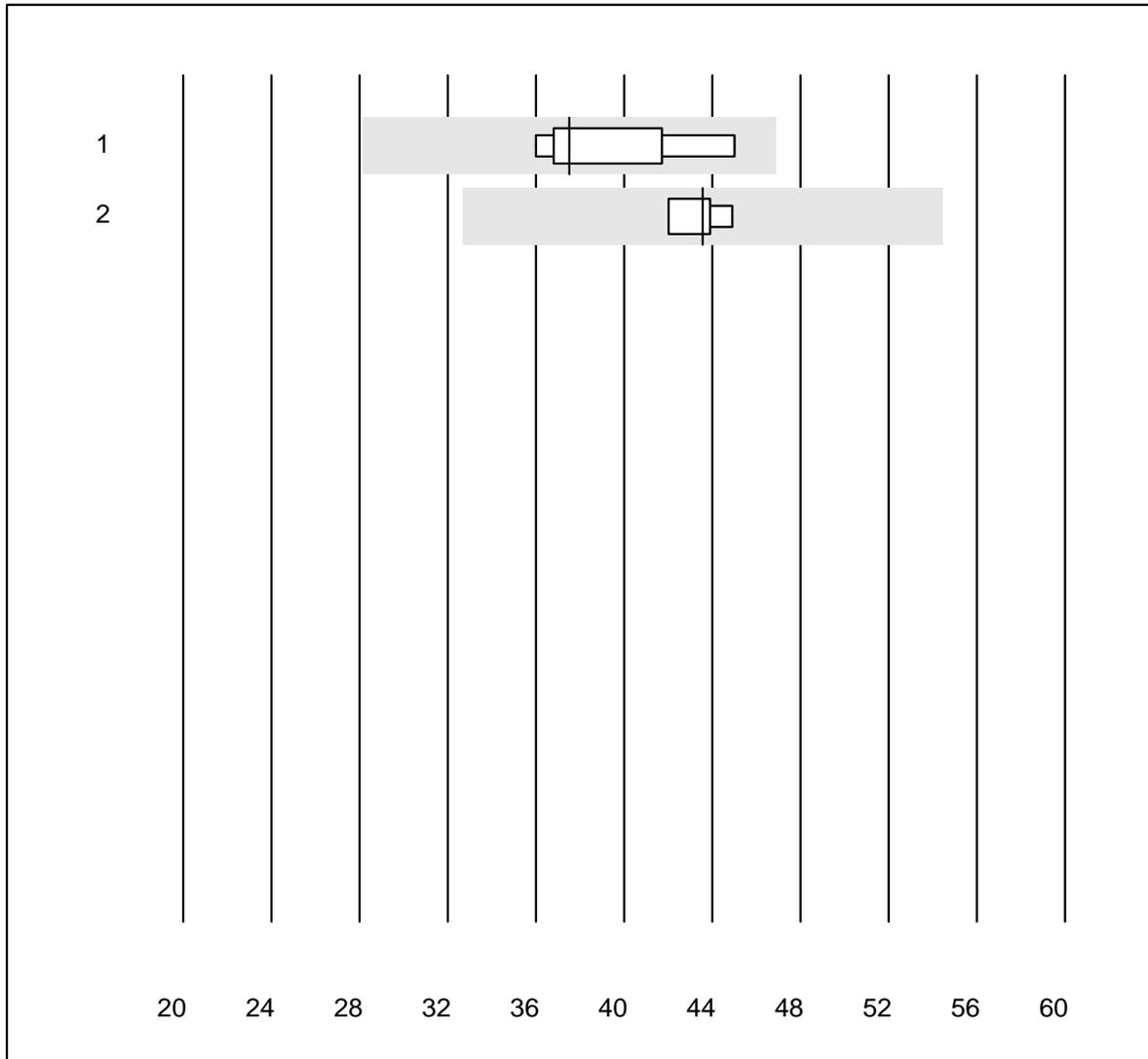
MQ tolerance : 25 %

CA 15-3 (kIU/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas E / Elecsys	9	100.0	0.0	0.0	37.5	8.1	e
2	Architect	4	100.0	0.0	0.0	43.6	2.8	e

6 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

AFP
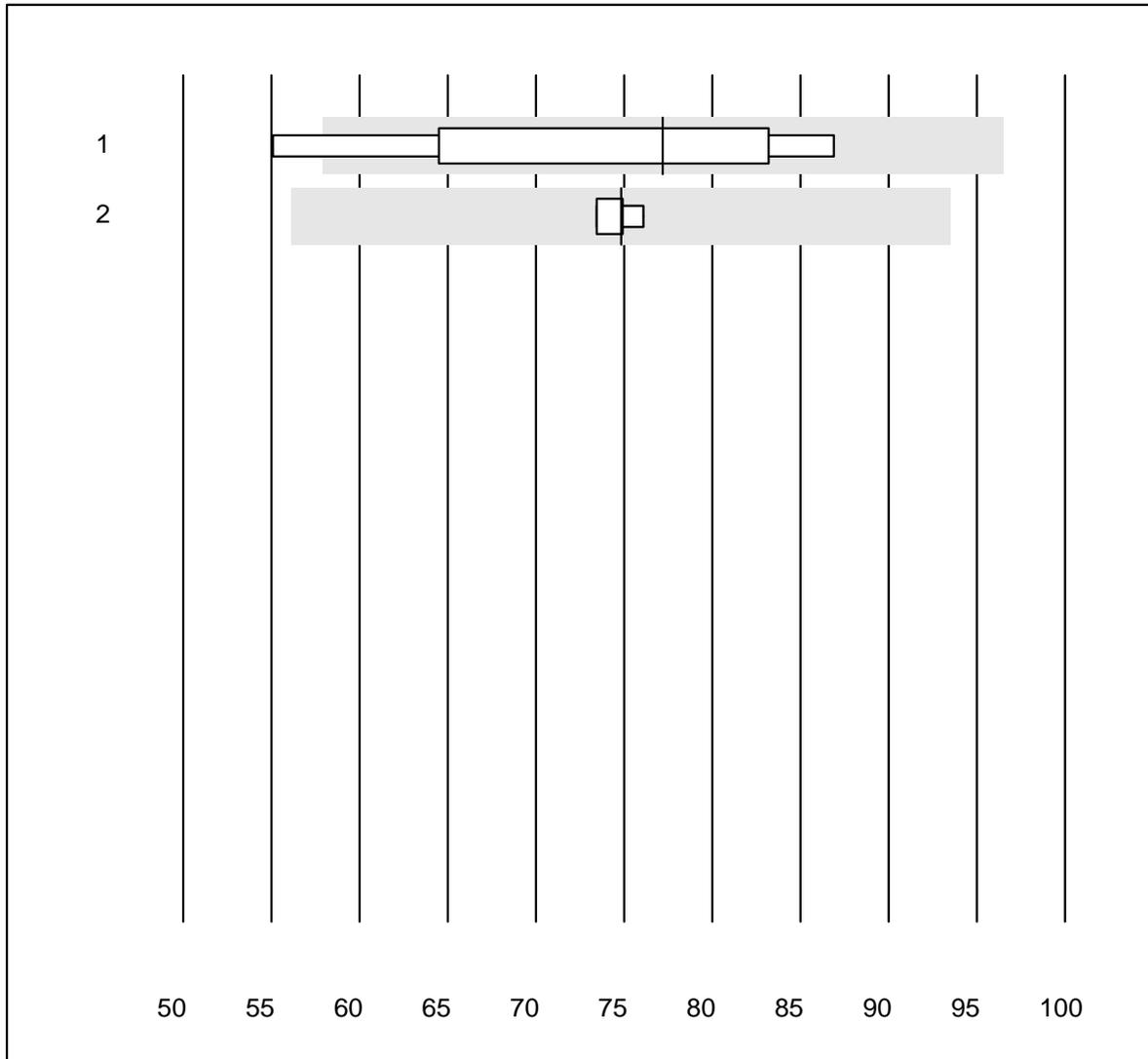
QUALAB tolerance : 25 %

AFP (µg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas E / Elecsys	7	85.7	14.3	0.0	77.2	15.7	a
2	Architect	4	100.0	0.0	0.0	74.8	1.4	e

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

HCG qn

QUALAB tolerance : 25 %

HCG qn (U/l)
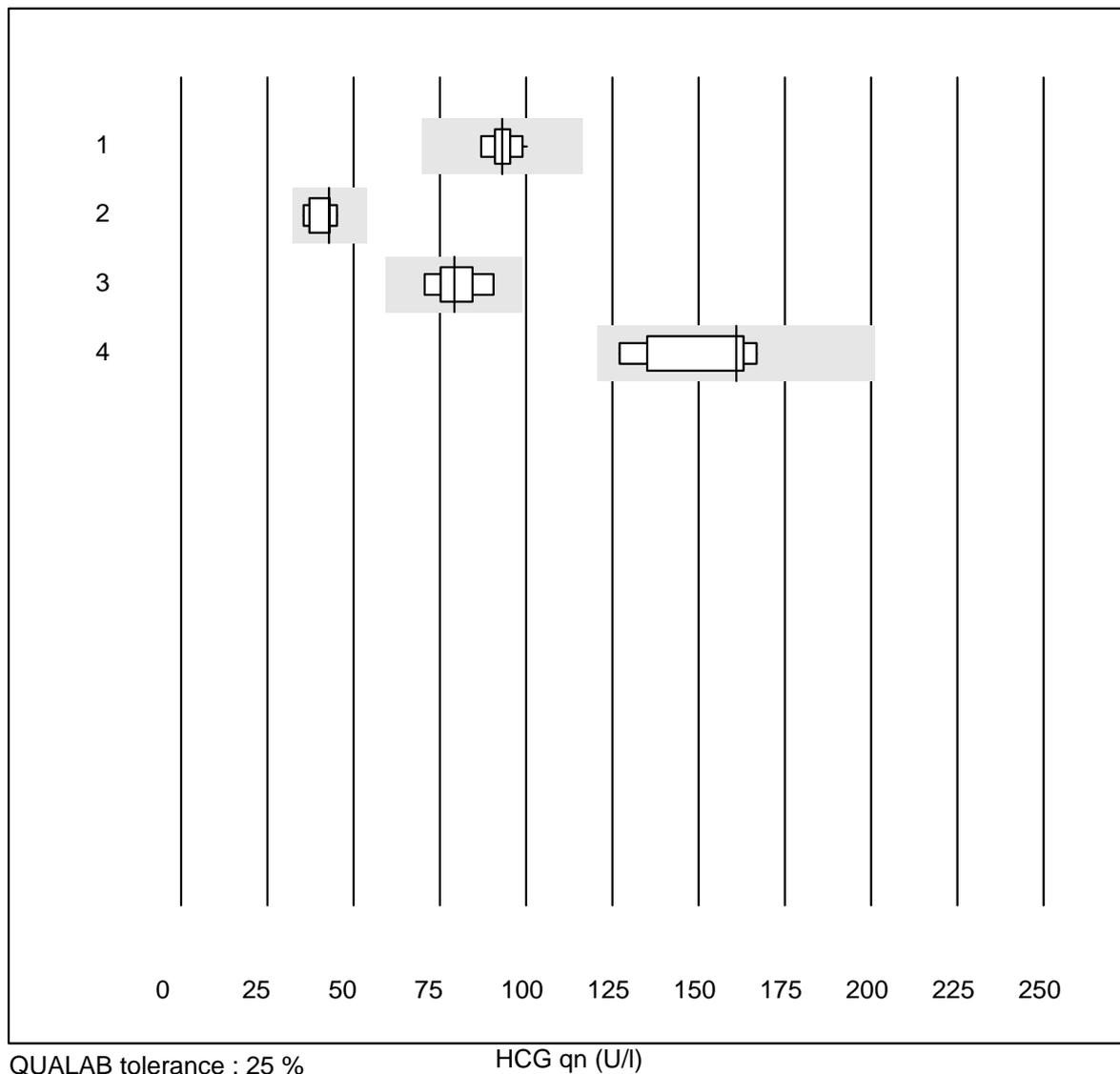
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas E / Elecsys	10	100.0	0.0	0.0	93.1	4.4	e
2	VIDAS	9	100.0	0.0	0.0	43.0	9.4	e*
3	Architect	7	100.0	0.0	0.0	79.2	8.0	e*
4	AFIAS	8	75.0	0.0	25.0	161.0	11.0	e*

6 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

HCG intact
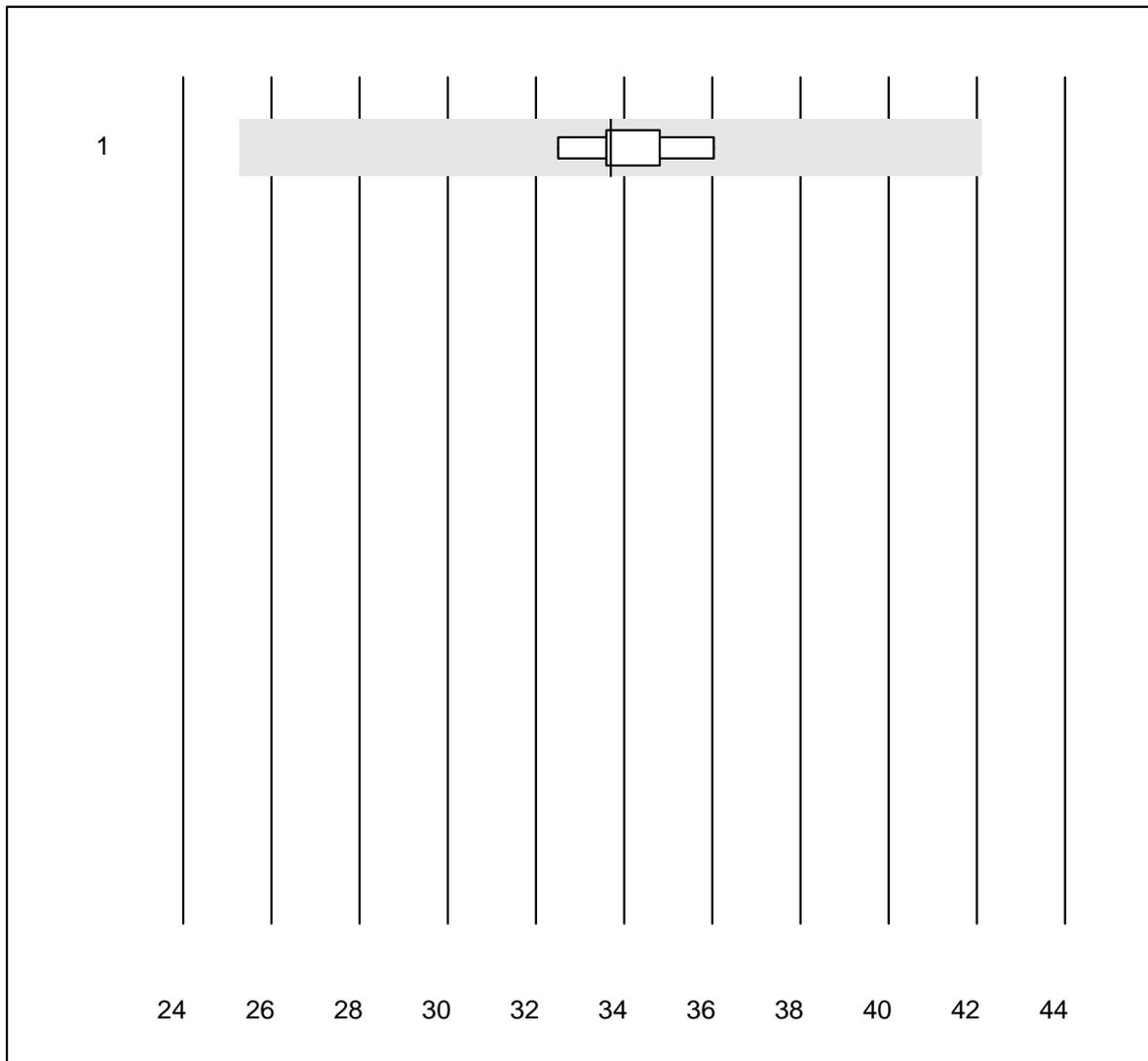
QUALAB tolerance : 25 %

HCG intact (U/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	5	100.0	0.0	0.0	33.7	3.9	e

One result was submitted but not published because the method group was too small. (<4 results per group)

S100
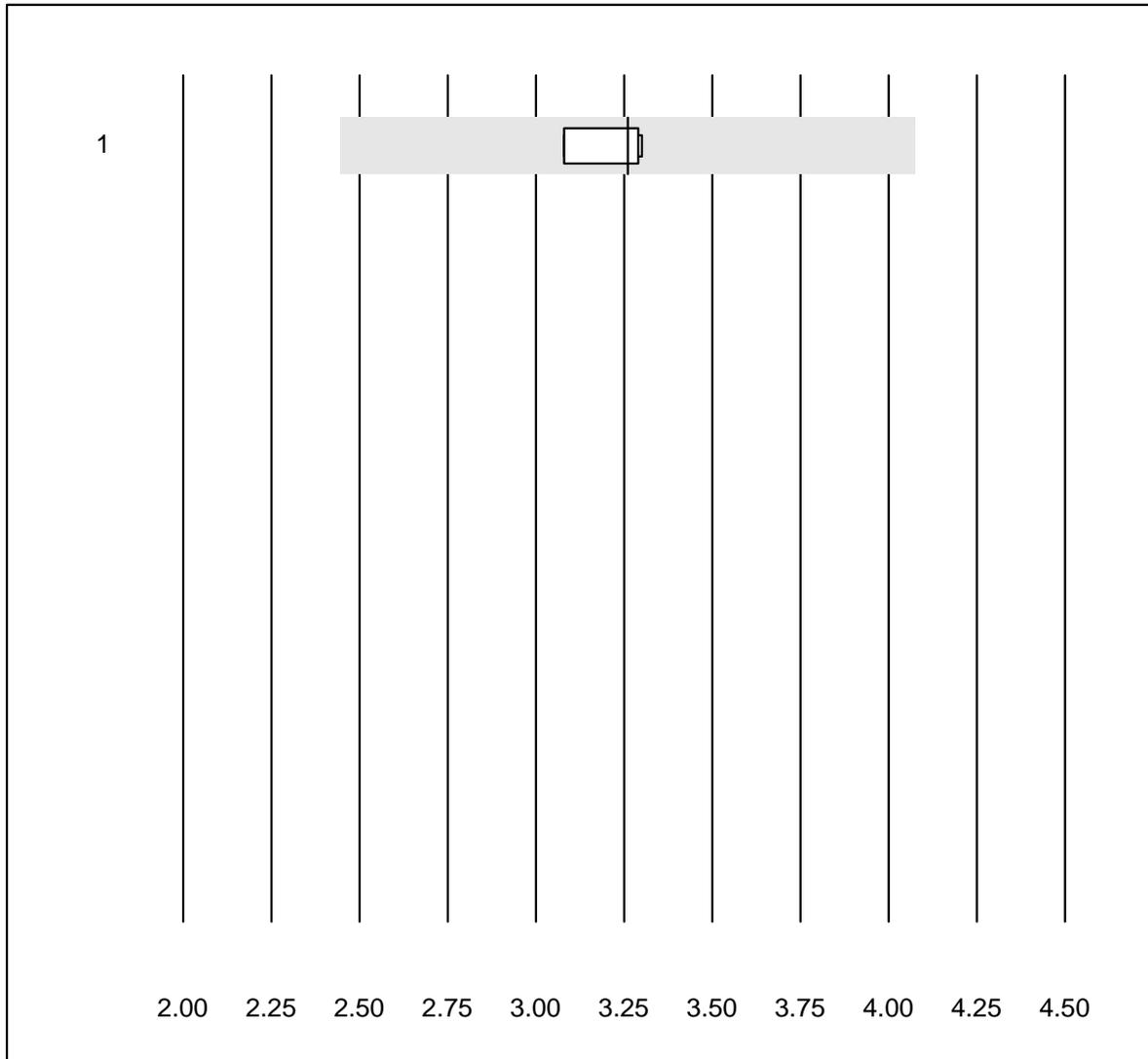
MQ tolerance : 25 %

S100 (µg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	4	100.0	0.0	0.0	3.26	3.1	e

One result was submitted but not published because the method group was too small. (<4 results per group)

NSE
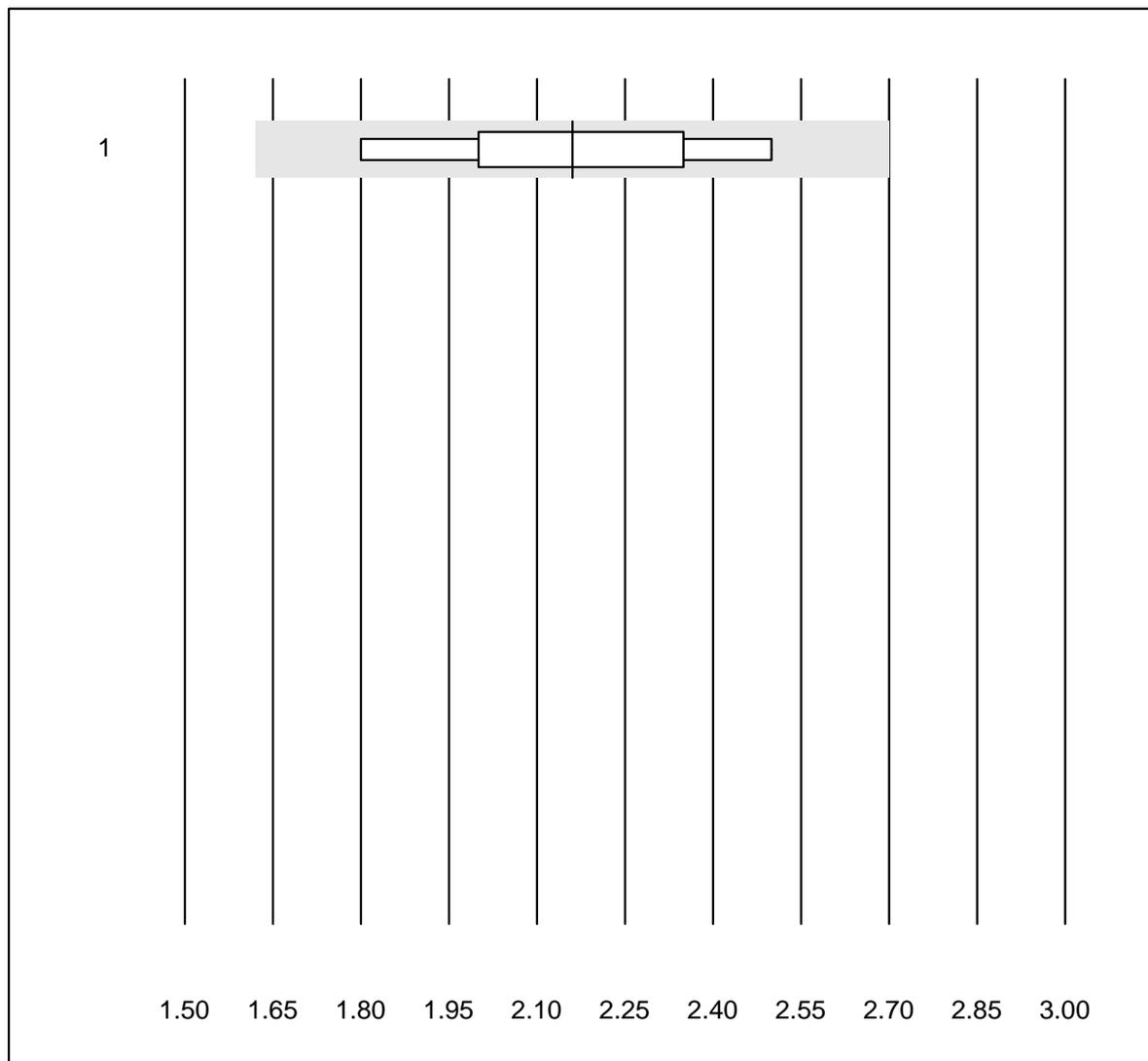
MQ tolerance : 25 %   NSE (ng/ml)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	5	100.0	0.0	0.0	2.2	13.4	a

Thyreoglobulin
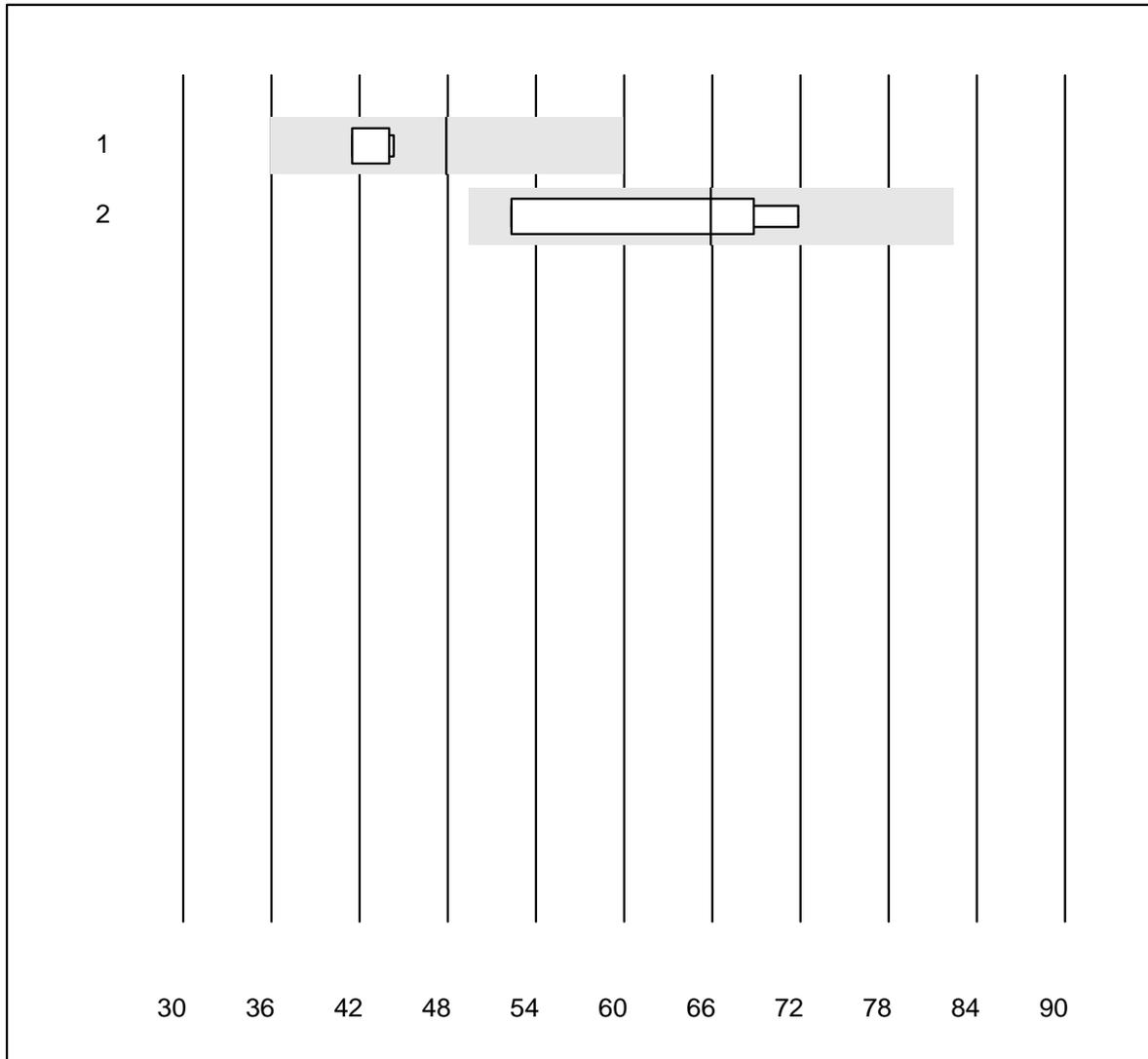
MQ tolerance : 25 %

Thyreoglobulin (µg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	4	100.0	0.0	0.0	47.9	3.3	a
2	Other methods	4	100.0	0.0	0.0	65.9	13.3	a

CK-MB

MQ tolerance : 30 %

CK-MB (U/l)
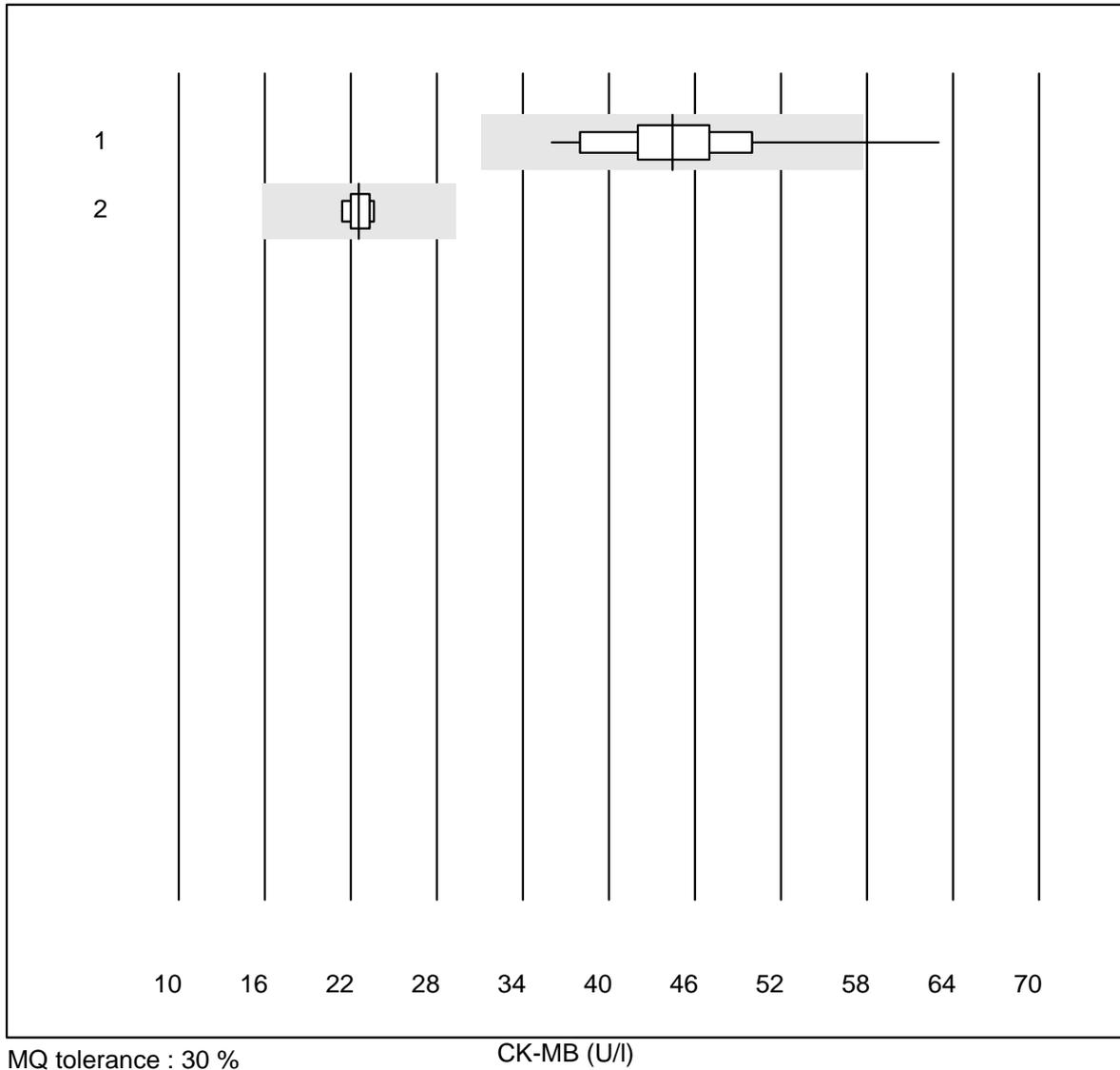
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Fuji Dri-Chem	30	96.7	3.3	0.0	44.4	11.6	e
2	Cobas/Roche	6	100.0	0.0	0.0	22.6	3.8	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Cholesterol PTS

3.00   3.15   3.30   3.45   3.60   3.75   3.90   4.05   4.20   4.35   4.50
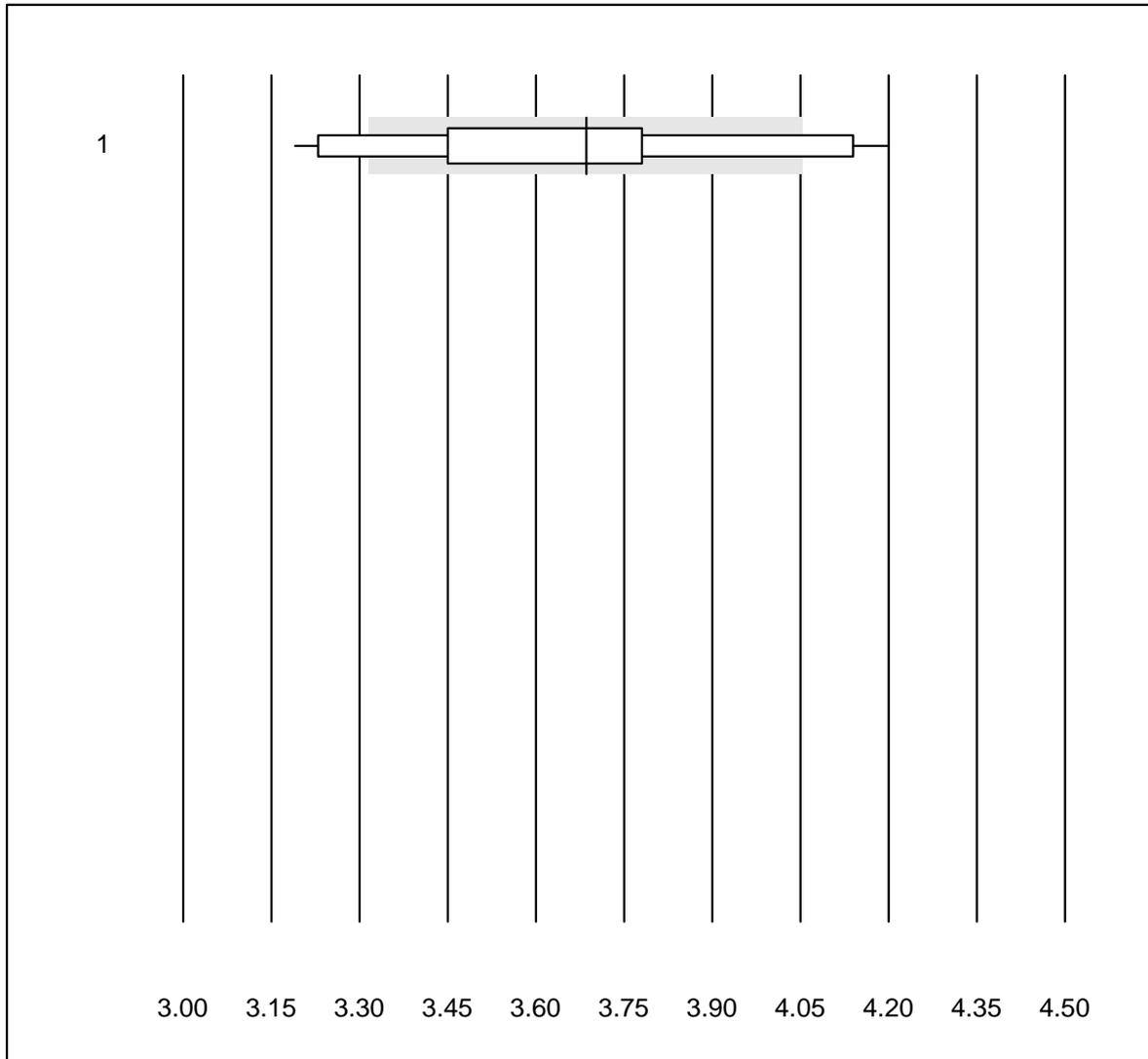
QUALAB tolerance : 10 %   Cholesterol PTS (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	CardioChek	17	70.6	23.5	5.9	3.69	7.8	e*

Cholesterol HDL PTS

1.20   1.29   1.38   1.47   1.56   1.65   1.74   1.83   1.92   2.01   2.10
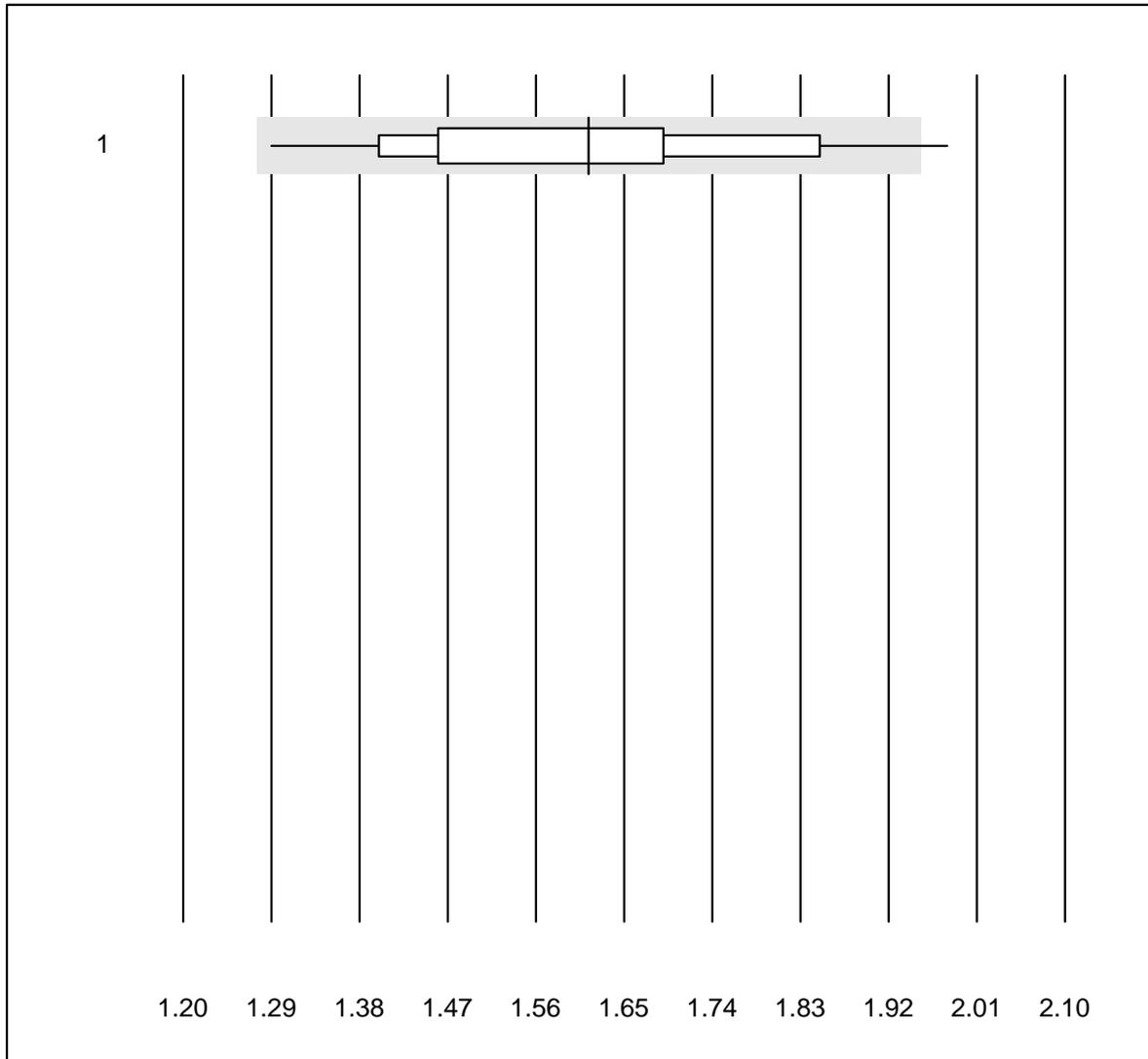
QUALAB tolerance : 21 %   Cholesterol HDL PTS (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	CardioChek	17	88.2	5.9	5.9	1.61	10.7	e*

Triglycerides

| | 0.70 | 0.76 | 0.82 | 0.88 | 0.94 | 1.00 | 1.06 | 1.12 | 1.18 | 1.24 | 1.30 |

Triglycerides (mmol/l)
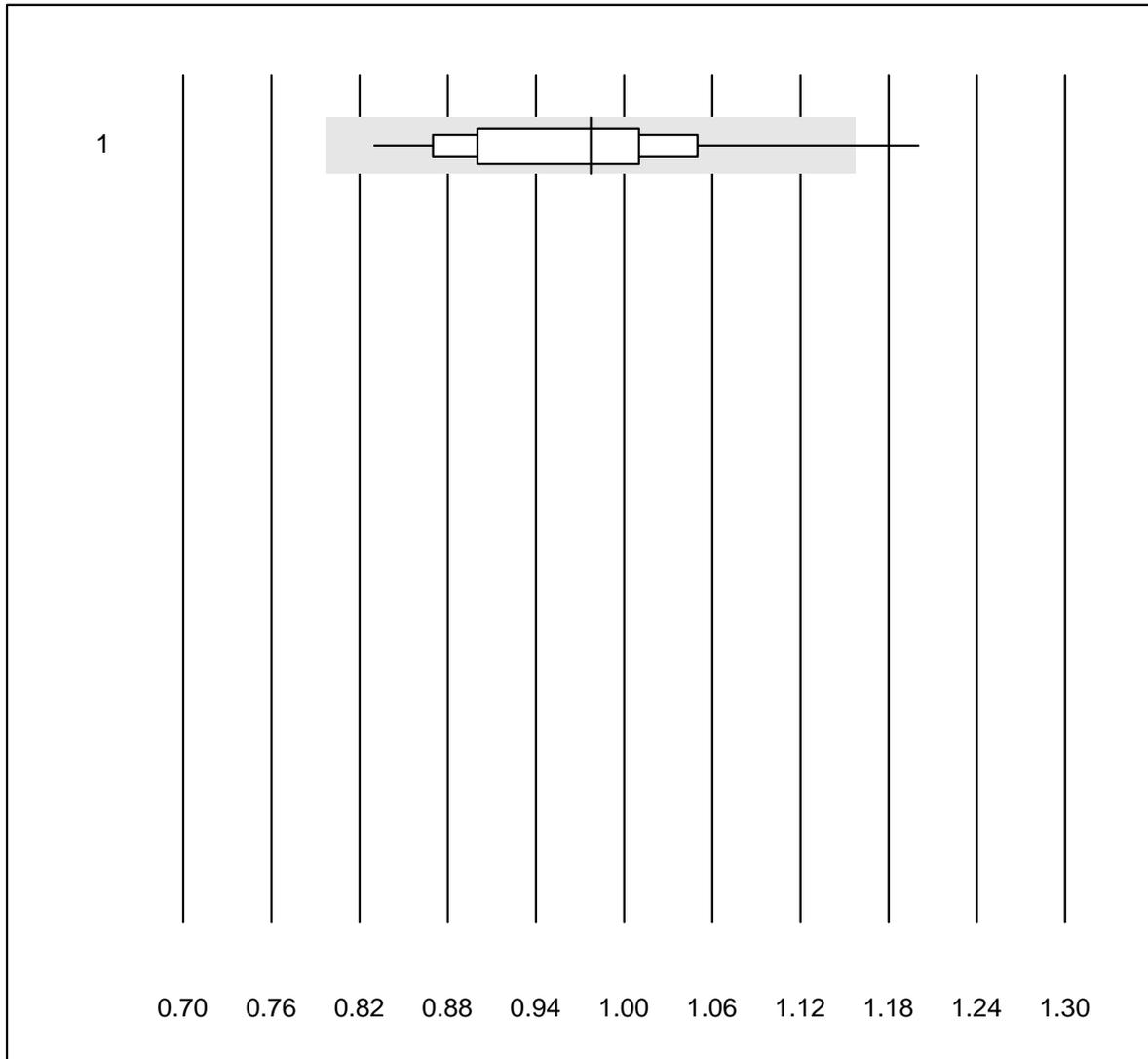
QUALAB tolerance : 18 %
(< 1.00: +/- 0.18 mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	CardioChek	17	88.2	5.9	5.9	0.98	9.0	e*

C-Peptid

MQ tolerance : 25 %

C-Peptid (nmol/l)
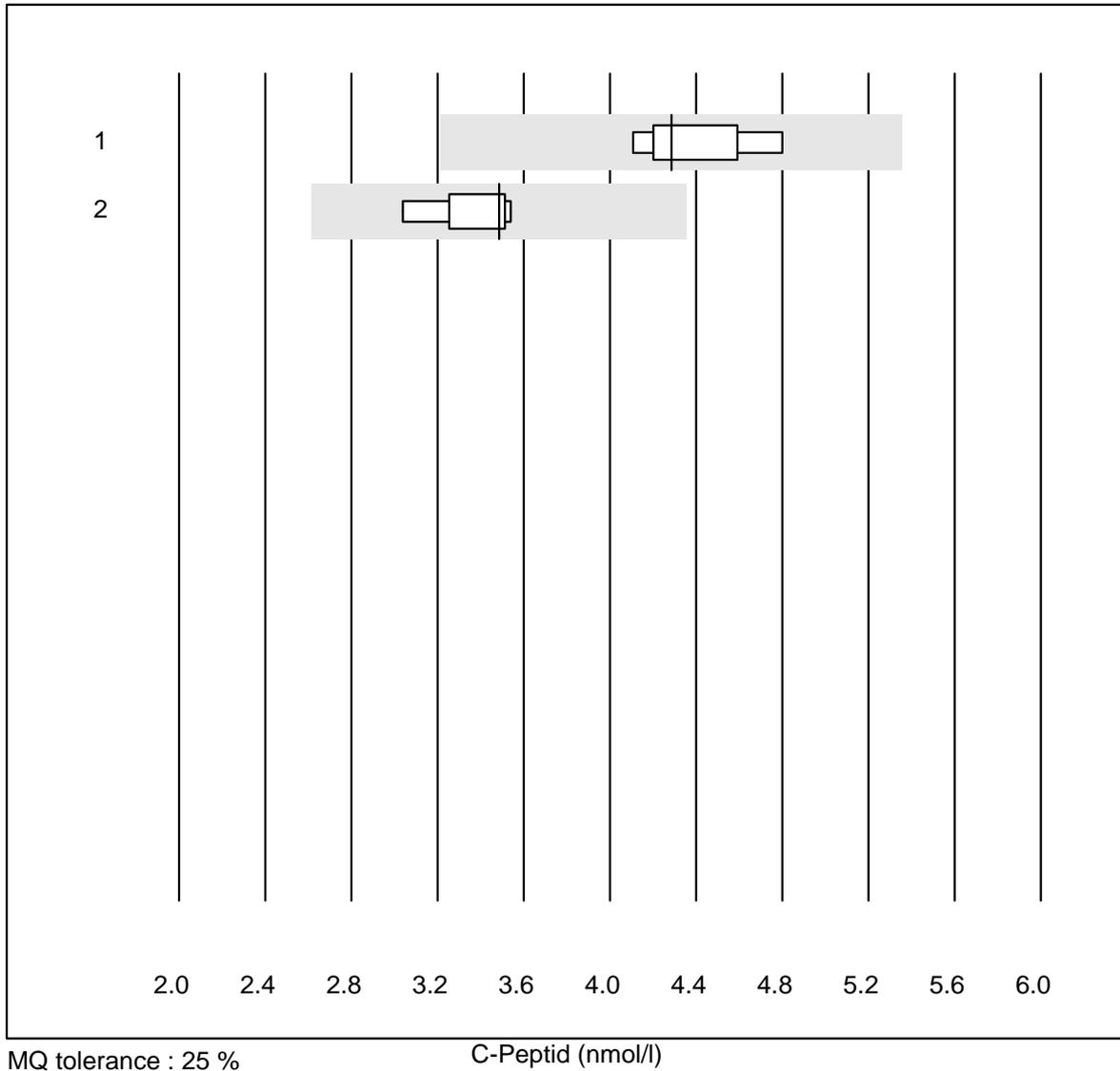
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Liaison	6	100.0	0.0	0.0	4.28	6.1	e
2	Other methods	5	100.0	0.0	0.0	3.49	6.4	e

ACTH

MQ tolerance : 25 %

ACTH (ng/l)
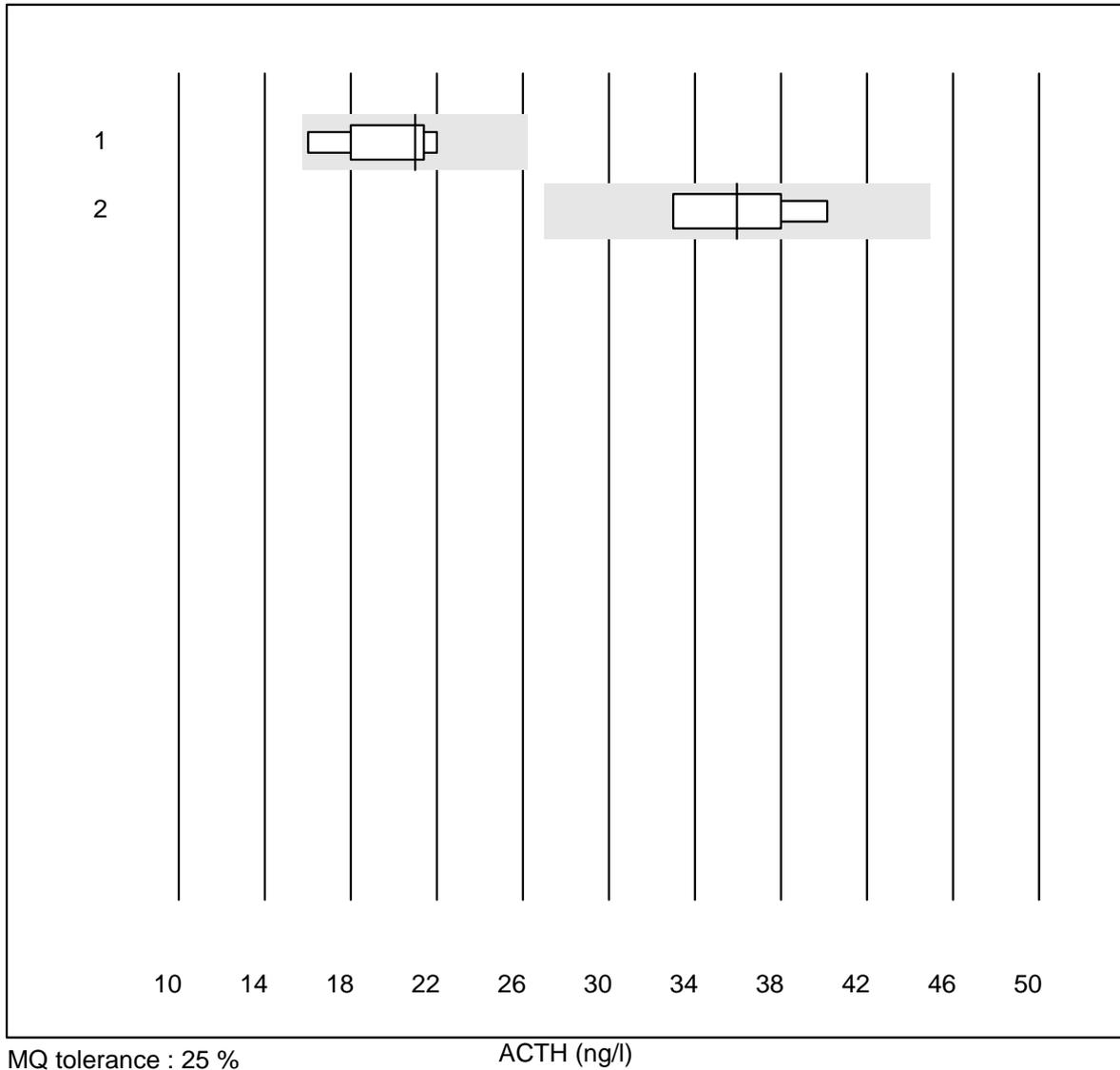
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	7	100.0	0.0	0.0	21.00	10.9	e*
2	Liaison	4	100.0	0.0	0.0	35.95	9.3	e*

Procalcitonin
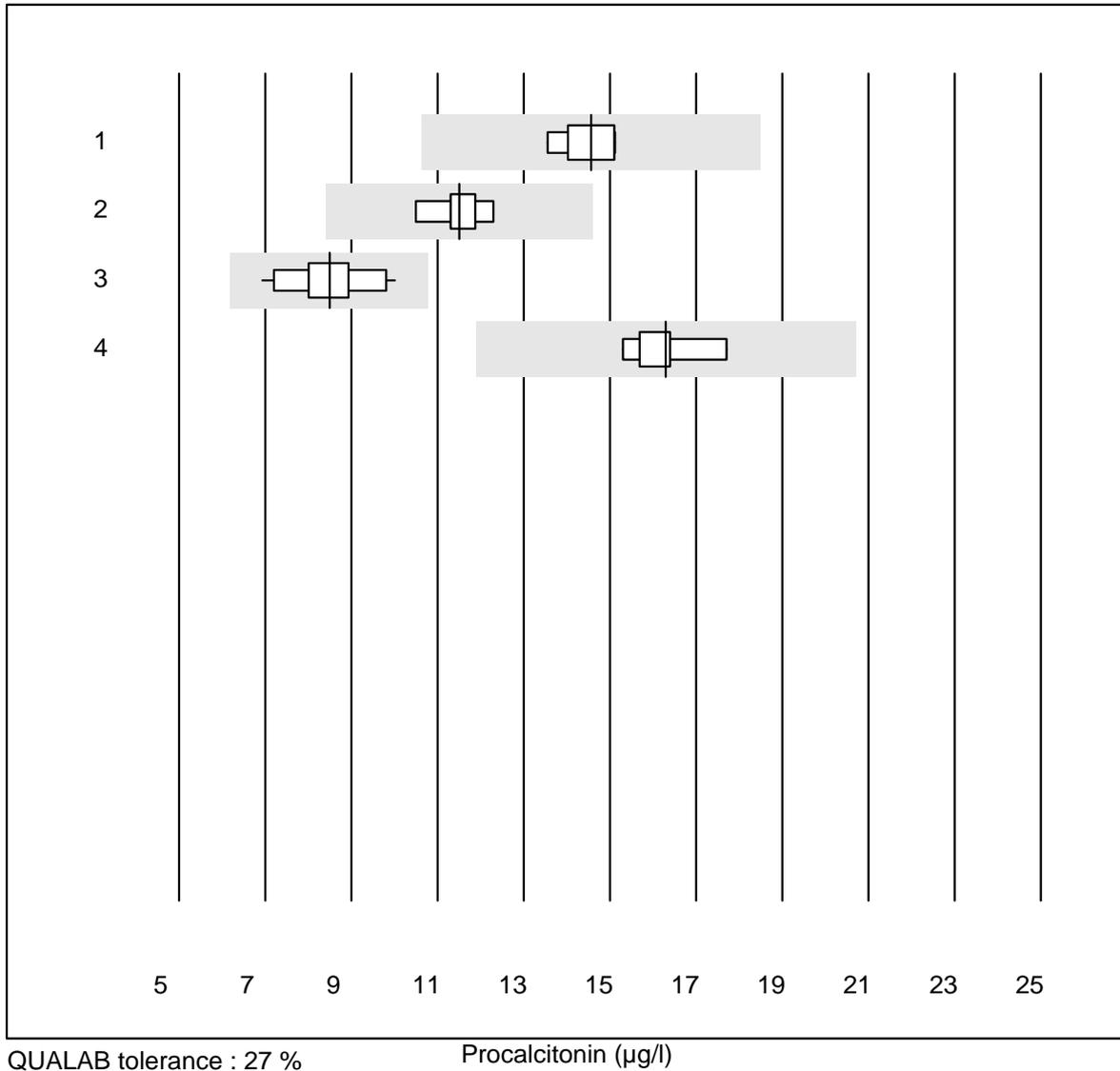
QUALAB tolerance : 27 %

Procalcitonin (µg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Architect	6	100.0	0.0	0.0	14.56	4.2	e
2	Cobas	9	100.0	0.0	0.0	11.50	4.6	e
3	VIDAS	12	100.0	0.0	0.0	8.49	10.8	e
4	Liaison	6	83.3	0.0	16.7	16.30	5.6	e

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

EPO
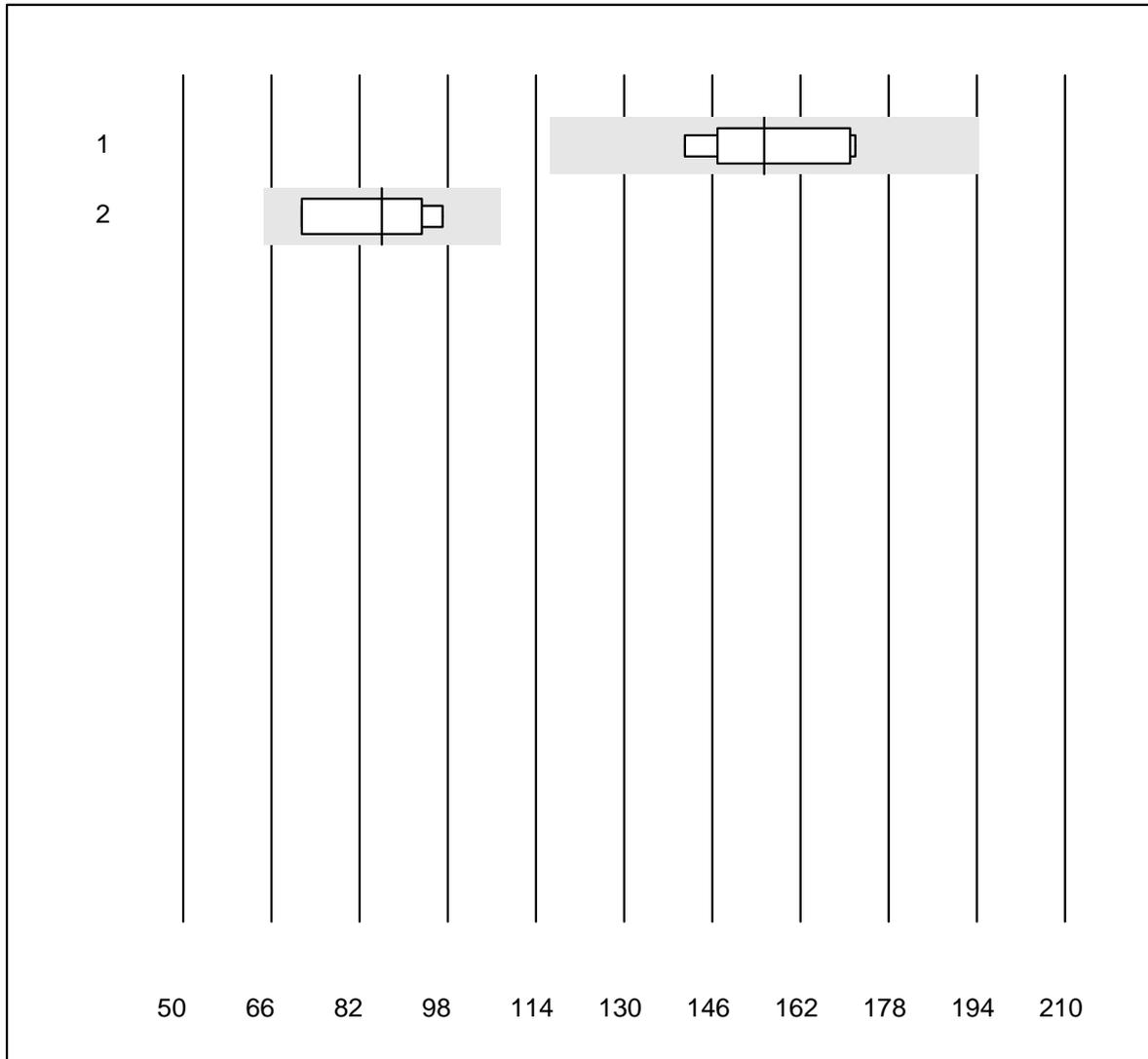
MQ tolerance : 25 %

EPO (U/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	5	100.0	0.0	0.0	155.4	8.9	e*
2	Immulite	4	100.0	0.0	0.0	86.0	14.1	e*

Parathyroid hormone

QUALAB tolerance : 24 %   Parathyroid hormone (pmol/l)
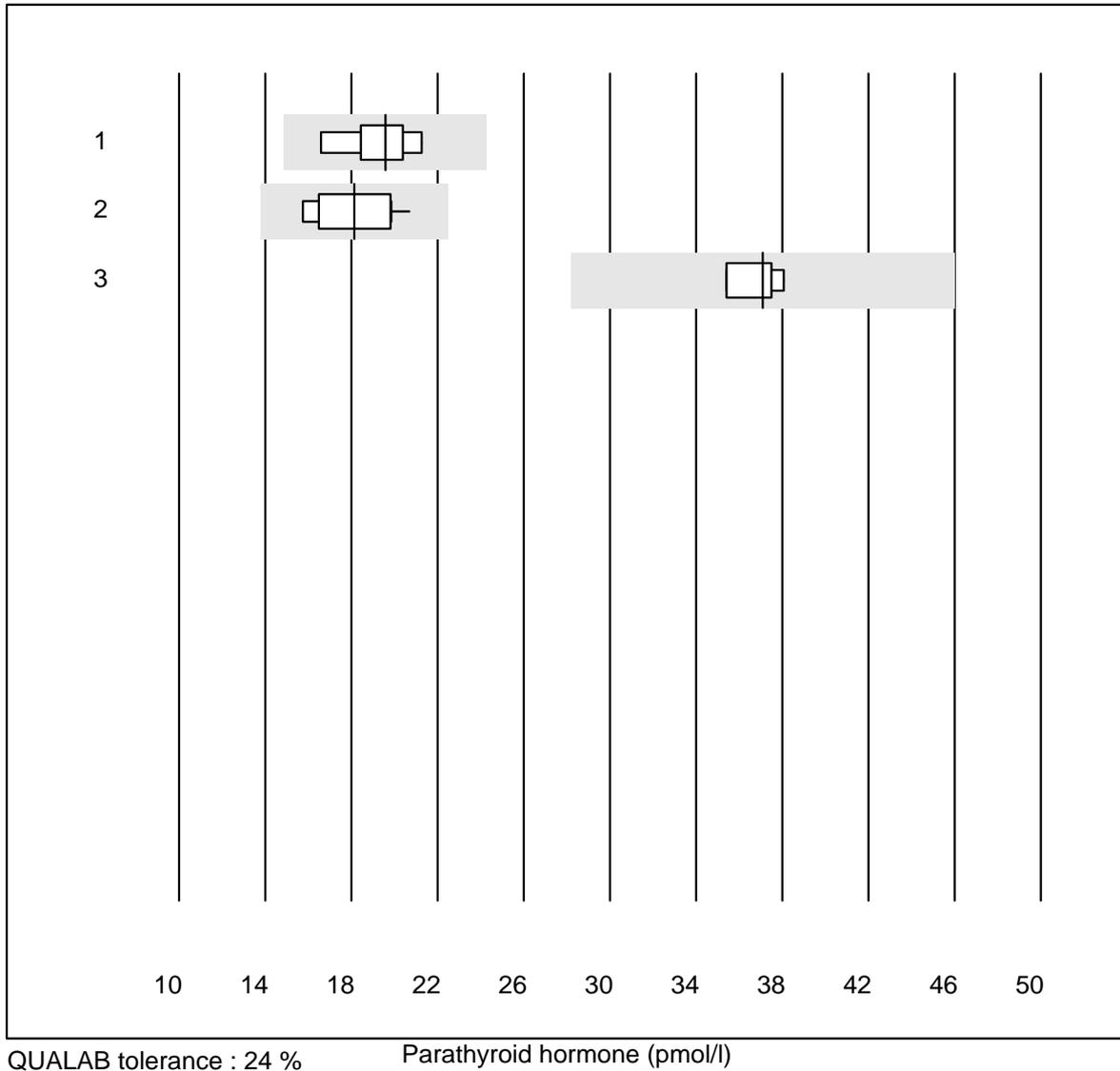
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas PTH STAT	9	100.0	0.0	0.0	19.6	7.6	e
2	Cobas	10	100.0	0.0	0.0	18.1	9.5	e*
3	Architect	4	100.0	0.0	0.0	37.1	3.1	e

9 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)
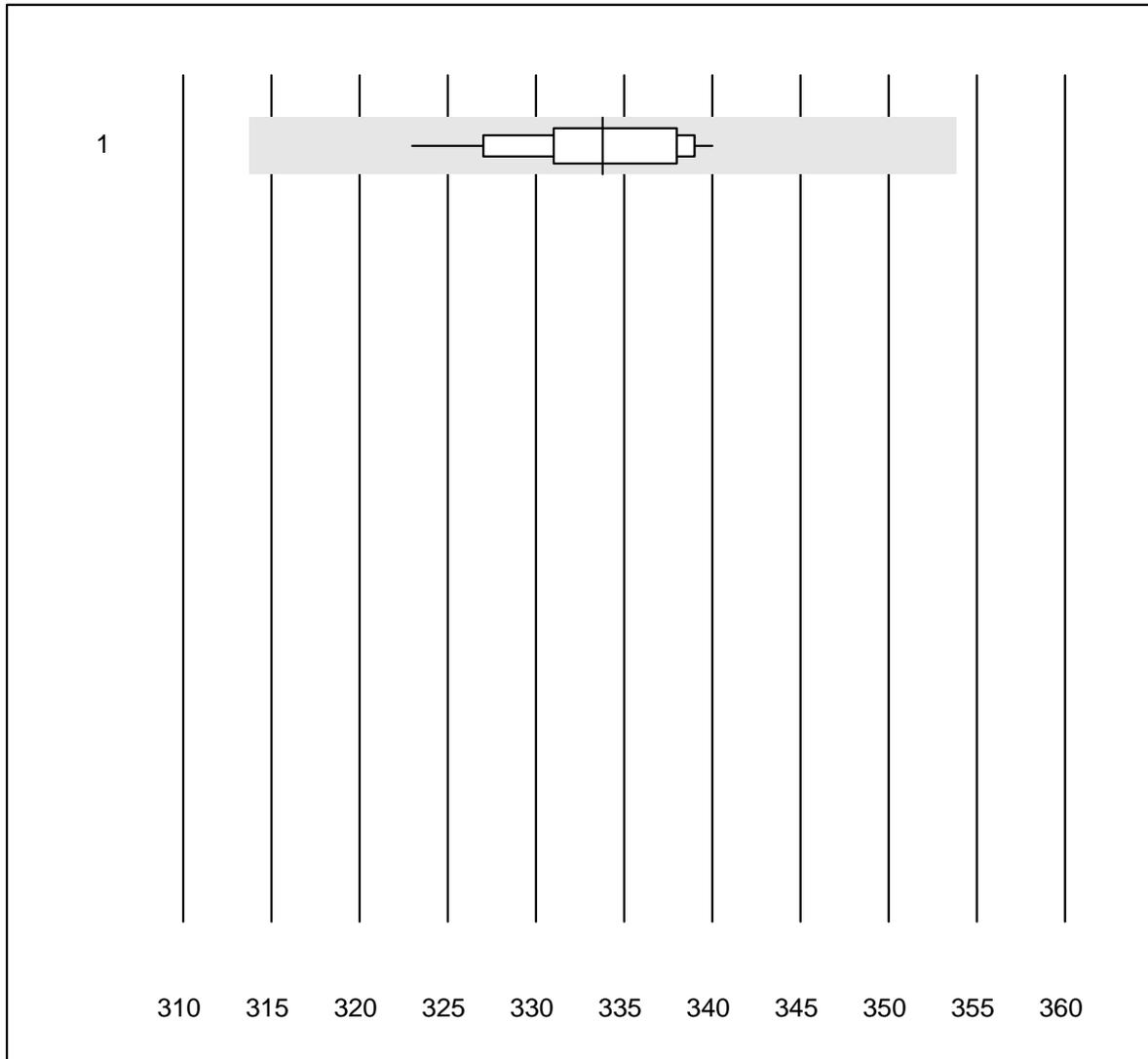
Osmolality

QUALAB tolerance : 6 %

Osmolality (mosm/kg)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cryoskopy	19	94.7	0.0	5.3	334	1.5	e

Potassium-K22
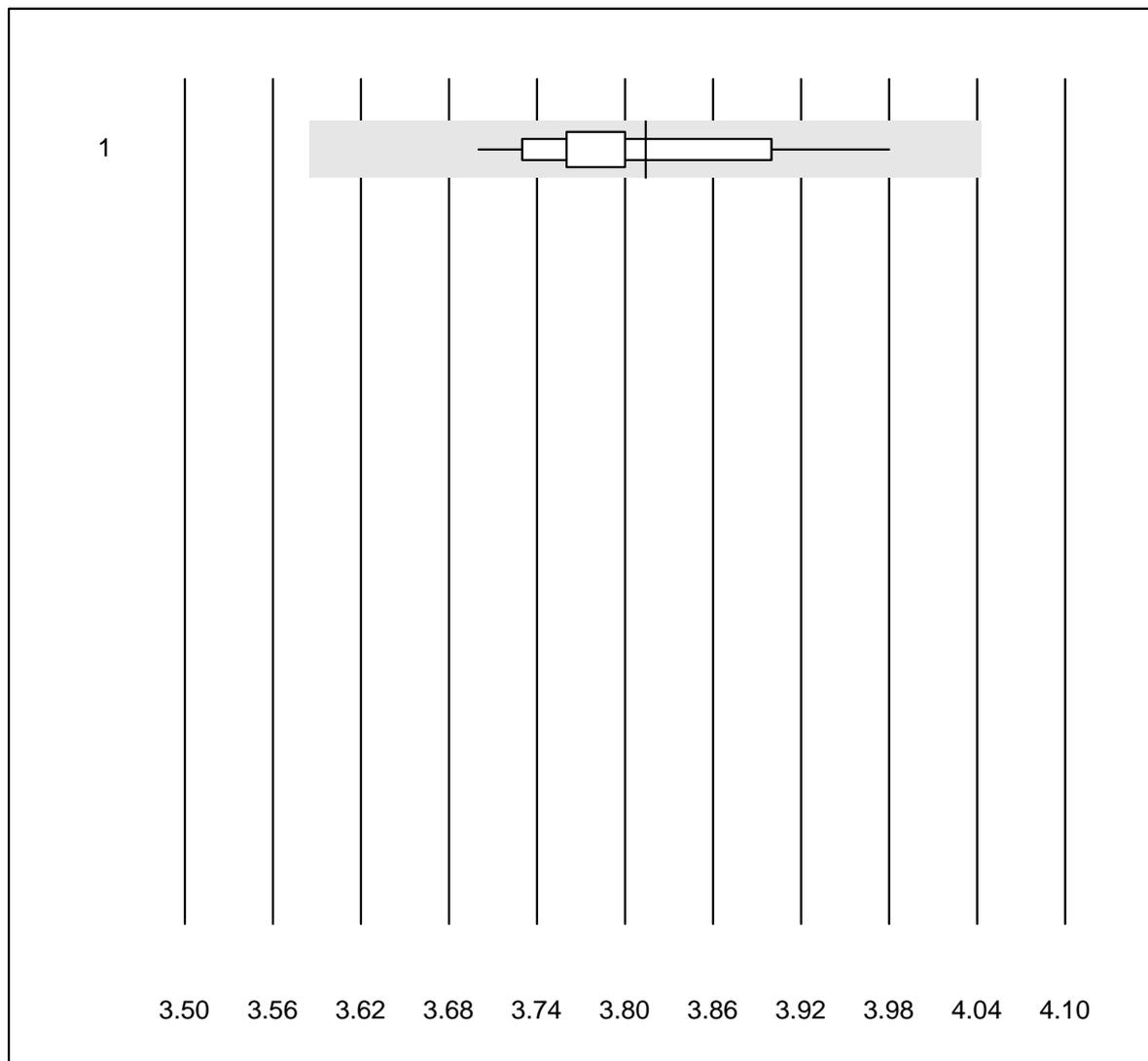
QUALAB tolerance : 6 %

Potassium-K22 (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ISE	12	100.0	0.0	0.0	3.8	2.0	e

Sodium-K22

QUALAB tolerance : 6 %   Sodium-K22 (mmol/l)
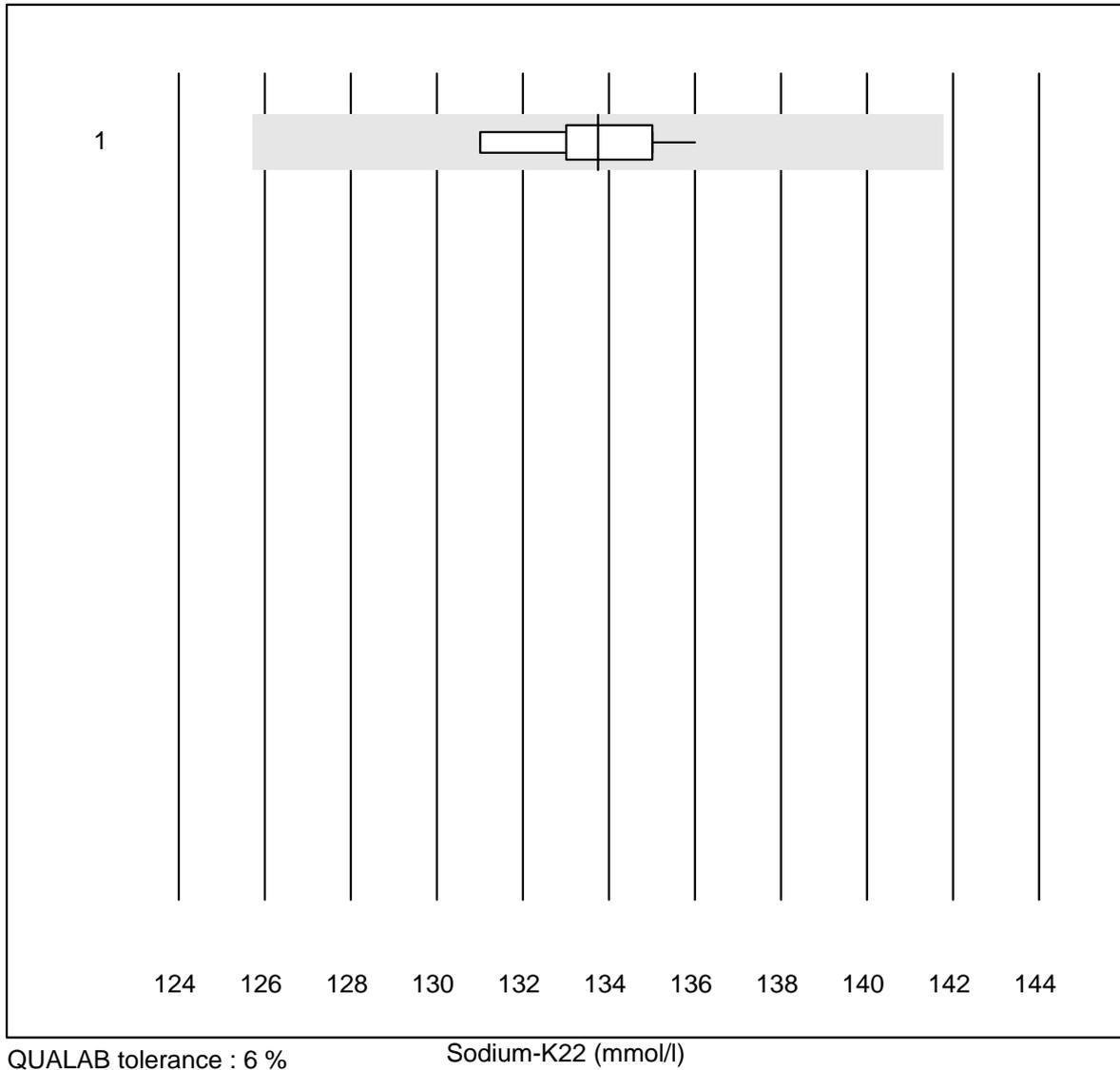
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	ISE	12	100.0	0.0	0.0	134	1.2	e

Glucose-K22
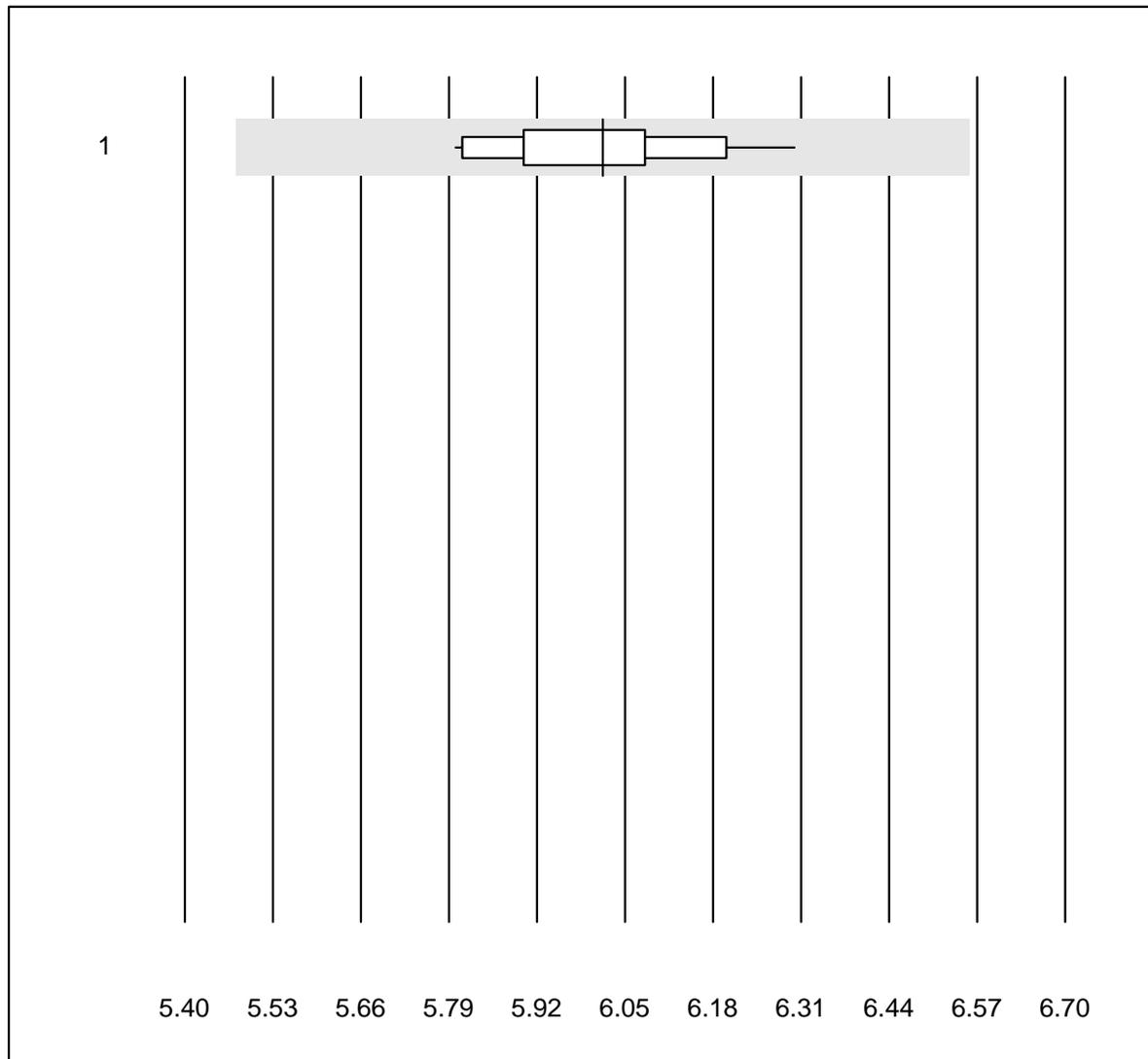
QUALAB tolerance : 9 %   Glucose-K22 (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	12	100.0	0.0	0.0	6.0	2.4	e

Urea-K22

QUALAB tolerance : 15 %   Urea-K22 (mmol/l)
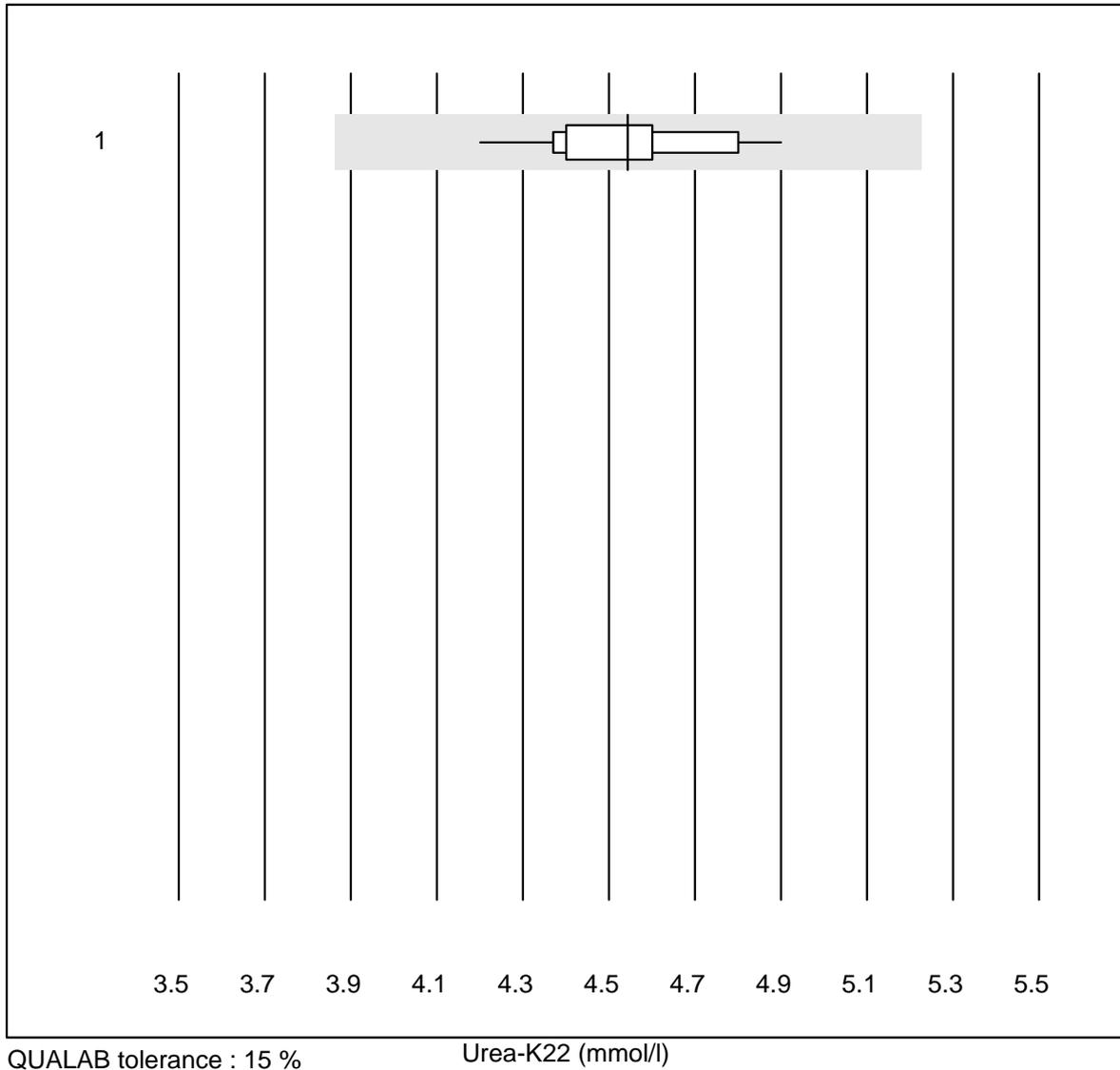
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	12	100.0	0.0	0.0	4.5	4.5	e

Osmotic Gap
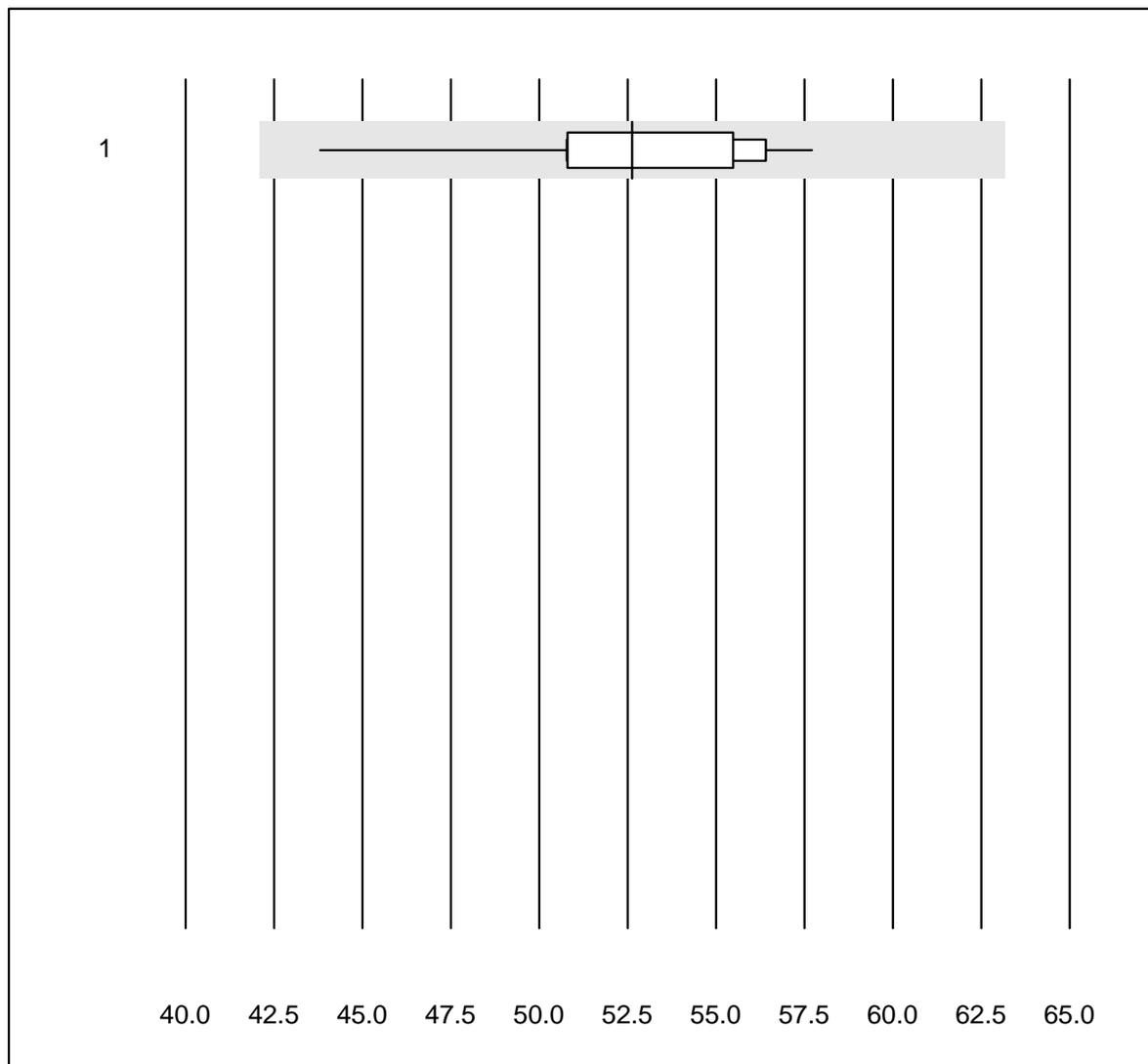
| | 40.0 | 42.5 | 45.0 | 47.5 | 50.0 | 52.5 | 55.0 | 57.5 | 60.0 | 62.5 | 65.0 |

Osmotic Gap (mmol/l)

MQ tolerance : 20 %

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Formel 1 (2Na+K+Glu+	11	100.0	0.0	0.0	52.6	7.4	e

One result was submitted but not published because the method group was too small. (<4 results per group)

Digoxin

| 0.00 | 0.15 | 0.30 | 0.45 | 0.60 | 0.75 | 0.90 | 1.05 | 1.20 | 1.35 | 1.50 |
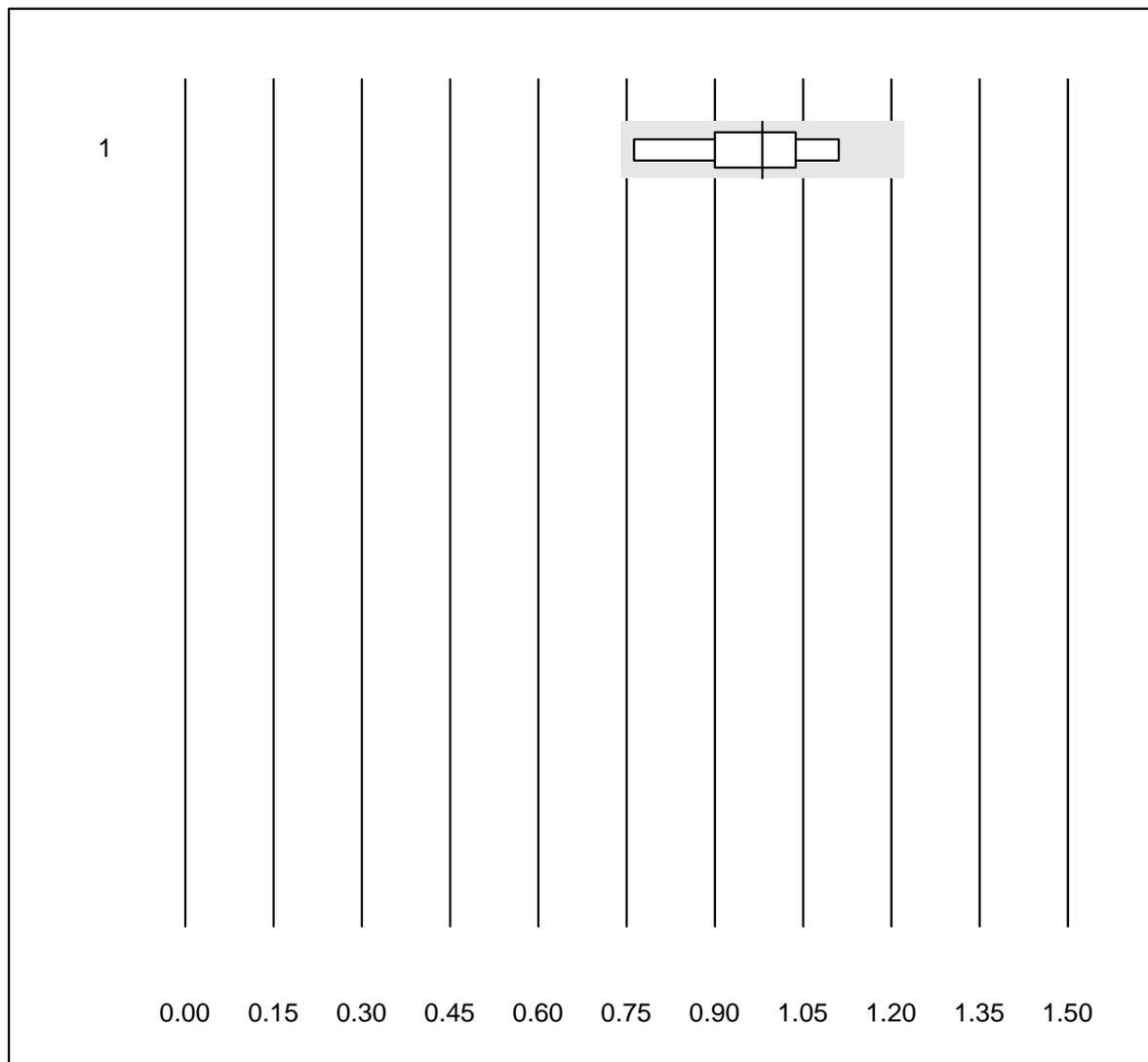
Digoxin (nmol/l)

QUALAB tolerance : 24 %
(< 1.00: +/- 0.24 nmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Other methods	7	100.0	0.0	0.0	0.98	11.8	e*

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Valproat

140   151   162   173   184   195   206   217   228   239   250

MQ tolerance : 24 %

Valproat (µmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	7	100.0	0.0	0.0	197.0	5.5	e

Cystatin C
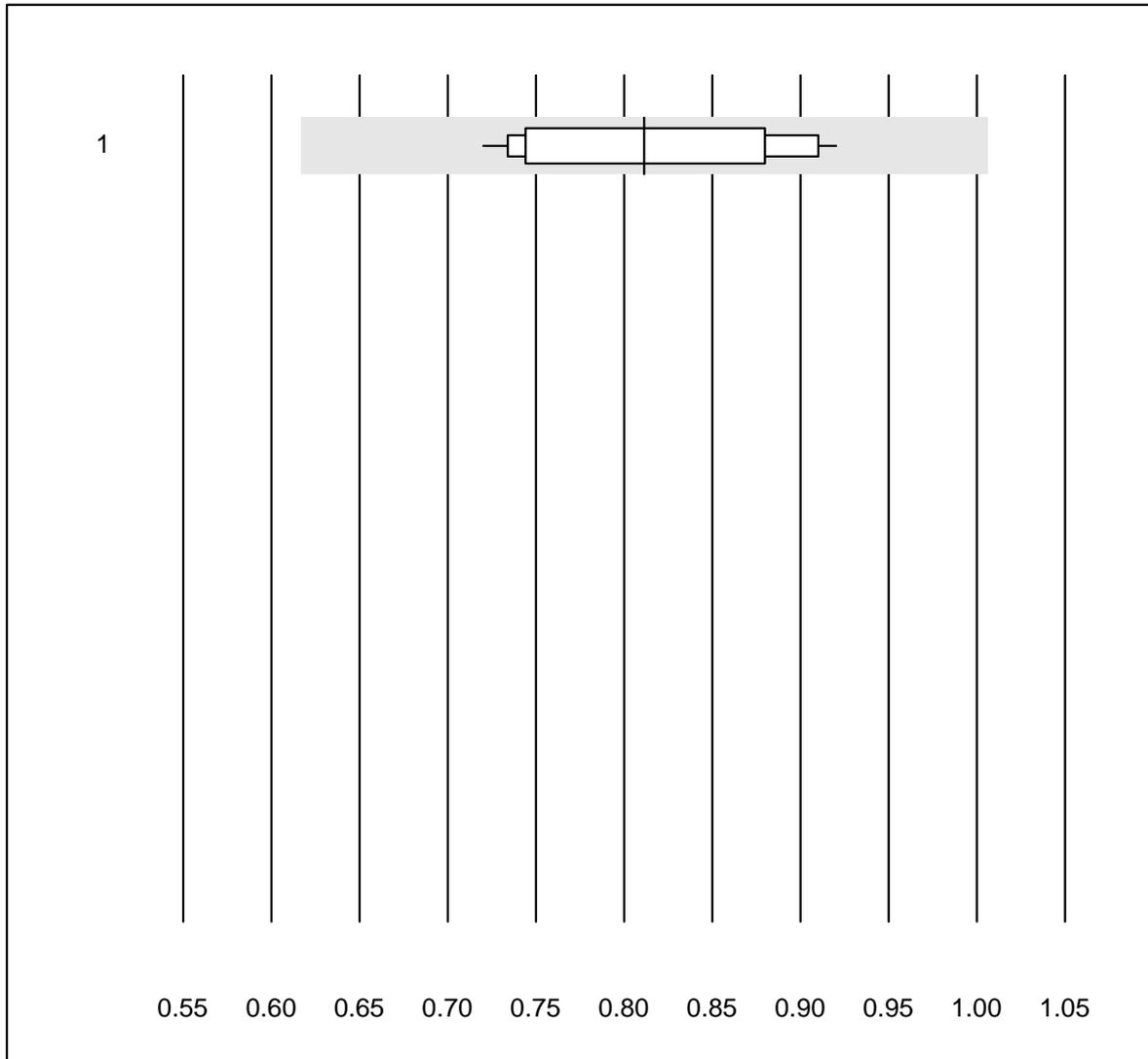
MQ tolerance : 24 %

Cystatin C (mg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	14	100.0	0.0	0.0	0.81	8.9	e

Ethanol
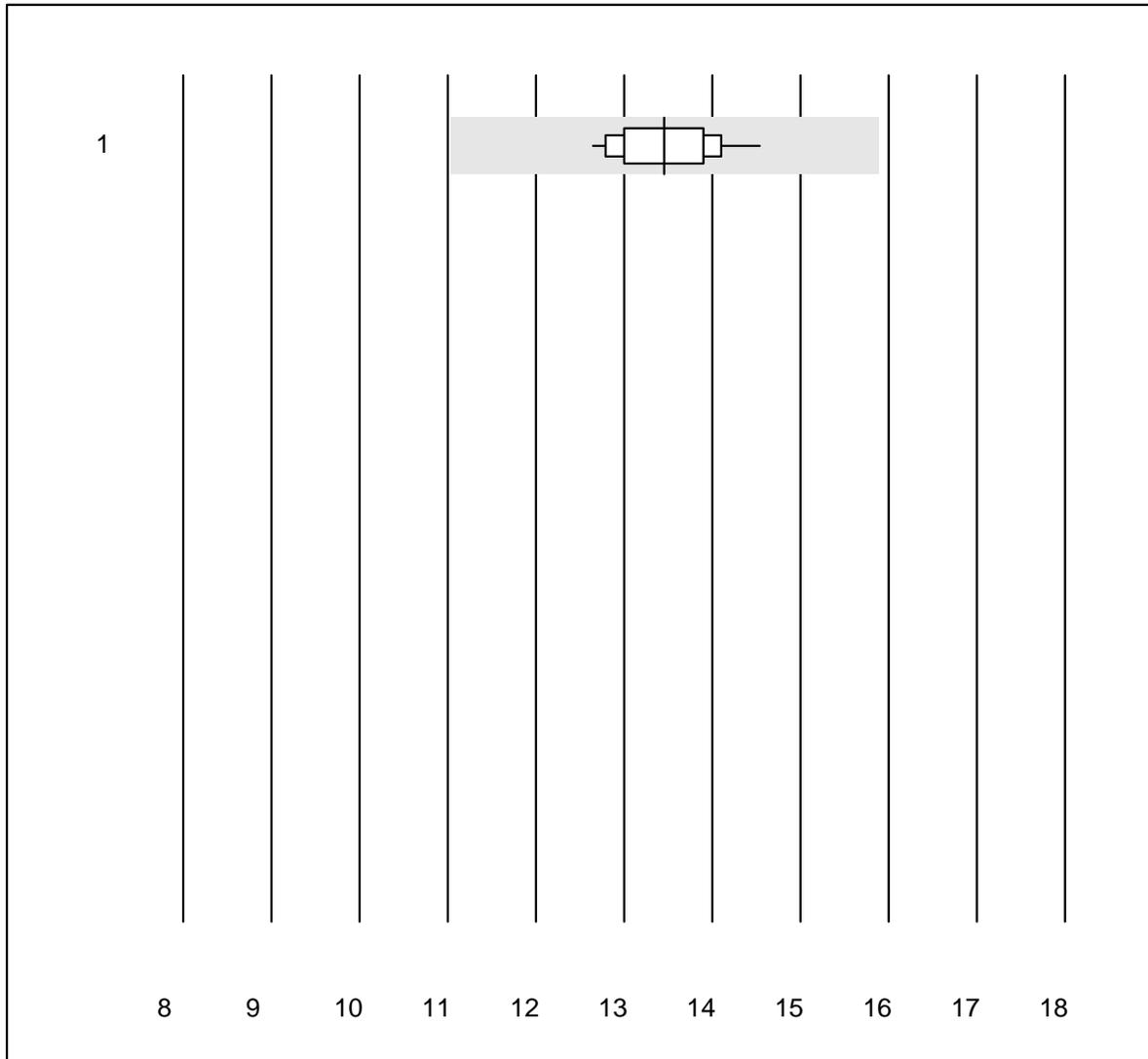
QUALAB tolerance : 18 %

Ethanol (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	26	100.0	0.0	0.0	13.5	4.2	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Ammonia

MQ tolerance : 25 %

Ammonia (µmol/l)
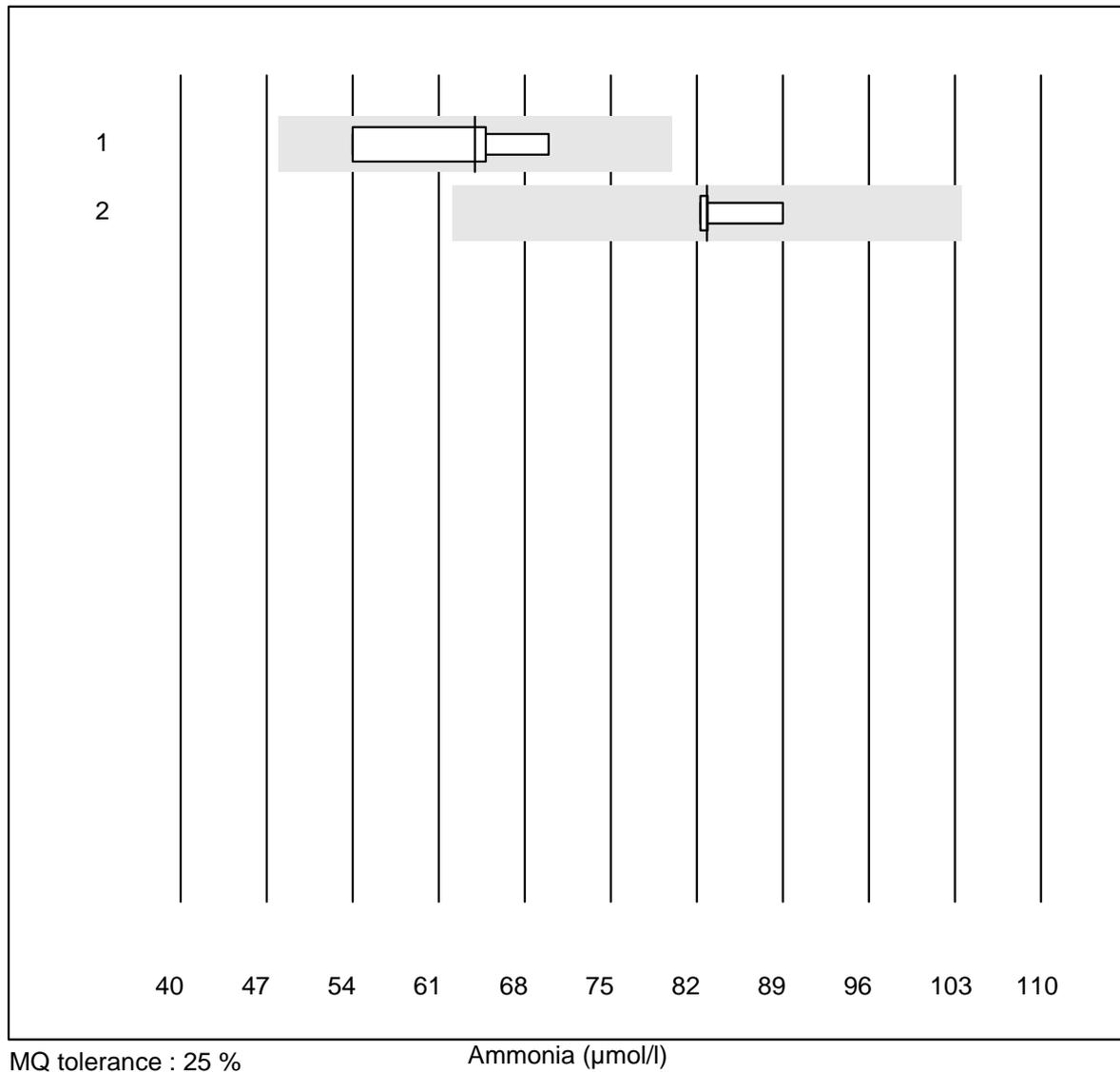
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Architect	4	100.0	0.0	0.0	63.9	10.6	e*
2	all Participants	4	100.0	0.0	0.0	82.8	3.8	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Calprotectin

MQ tolerance : 40 %

Calprotectin (µg/g)
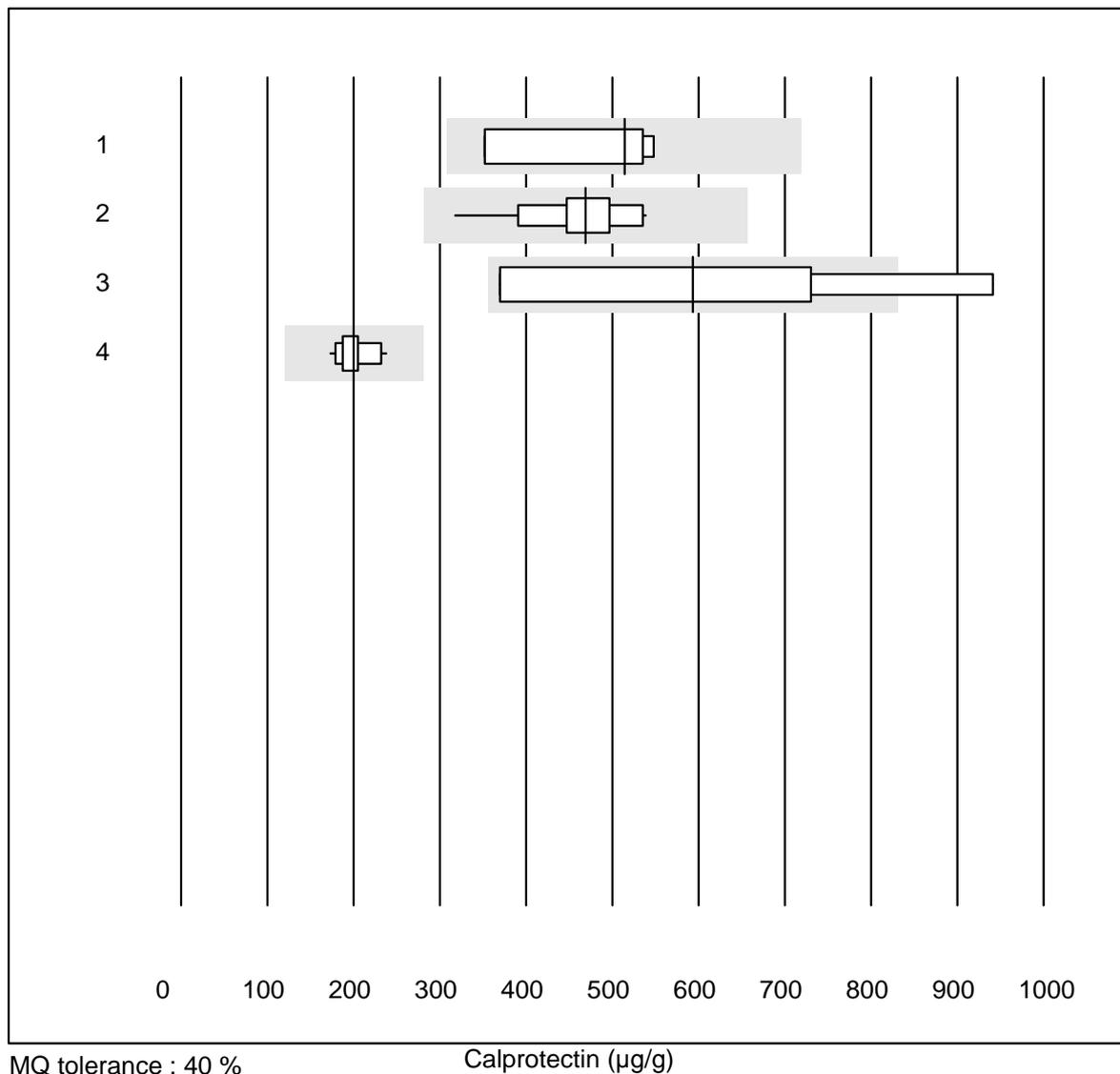
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Bühlmann ELISA	4	100.0	0.0	0.0	514	18.6	e*
2	Bühlmann fCALturbo	15	80.0	0.0	20.0	469	13.3	e
3	Bühlmann Quantum Blu	4	75.0	25.0	0.0	594	41.8	e*
4	Liaison	21	95.2	0.0	4.8	200	8.7	e

4 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Cholesterol total Af/b101

3.50   3.65   3.80   3.95   4.10   4.25   4.40   4.55   4.70   4.85   5.00
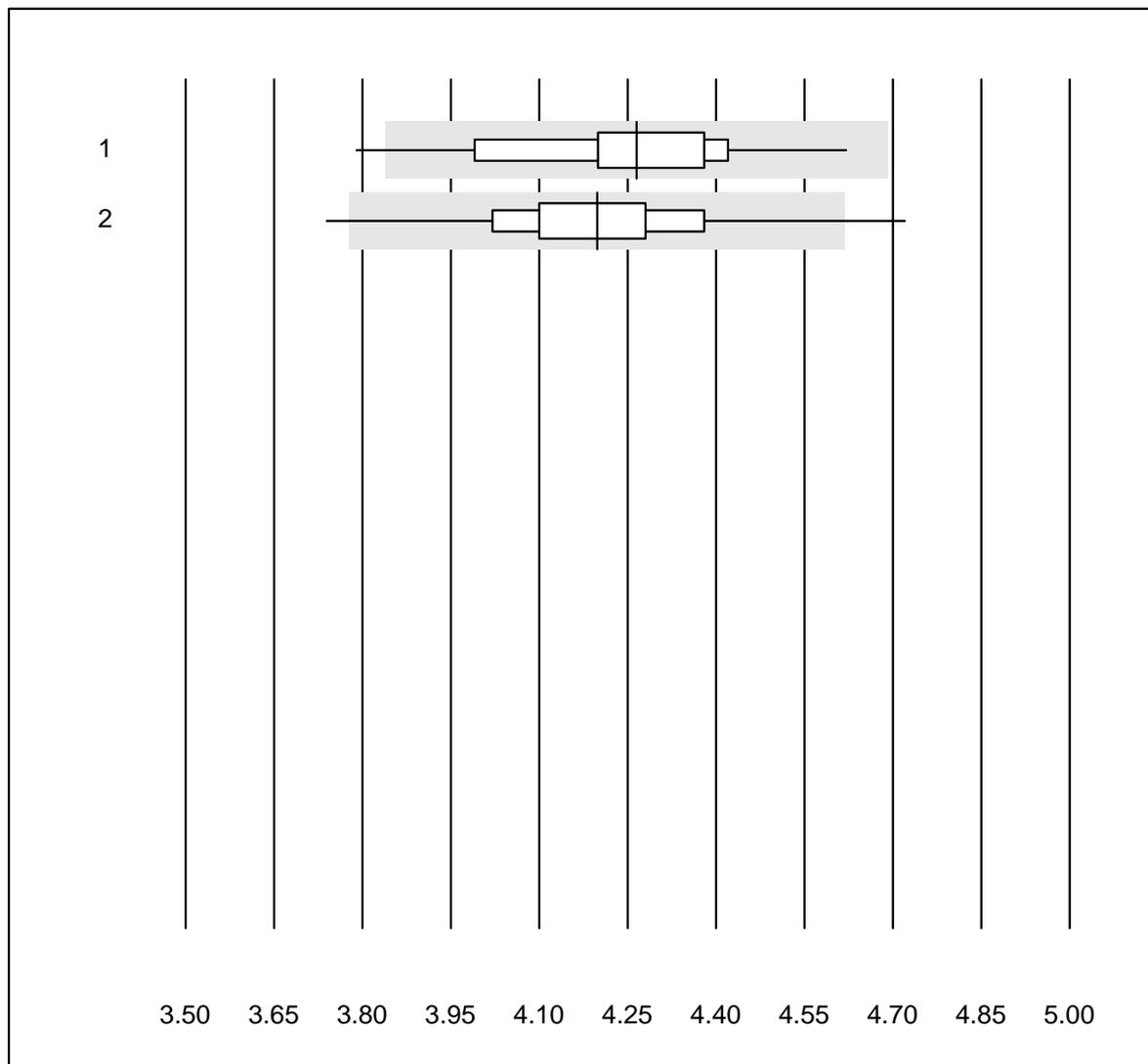
QUALAB tolerance : 10 %   Cholesterol total Af/b101 (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas b101	260	97.6	1.2	1.2	4.26	3.8	e
2	Afinion	443	97.5	0.9	1.6	4.20	3.4	e

Cholesterol HDL Af/b101
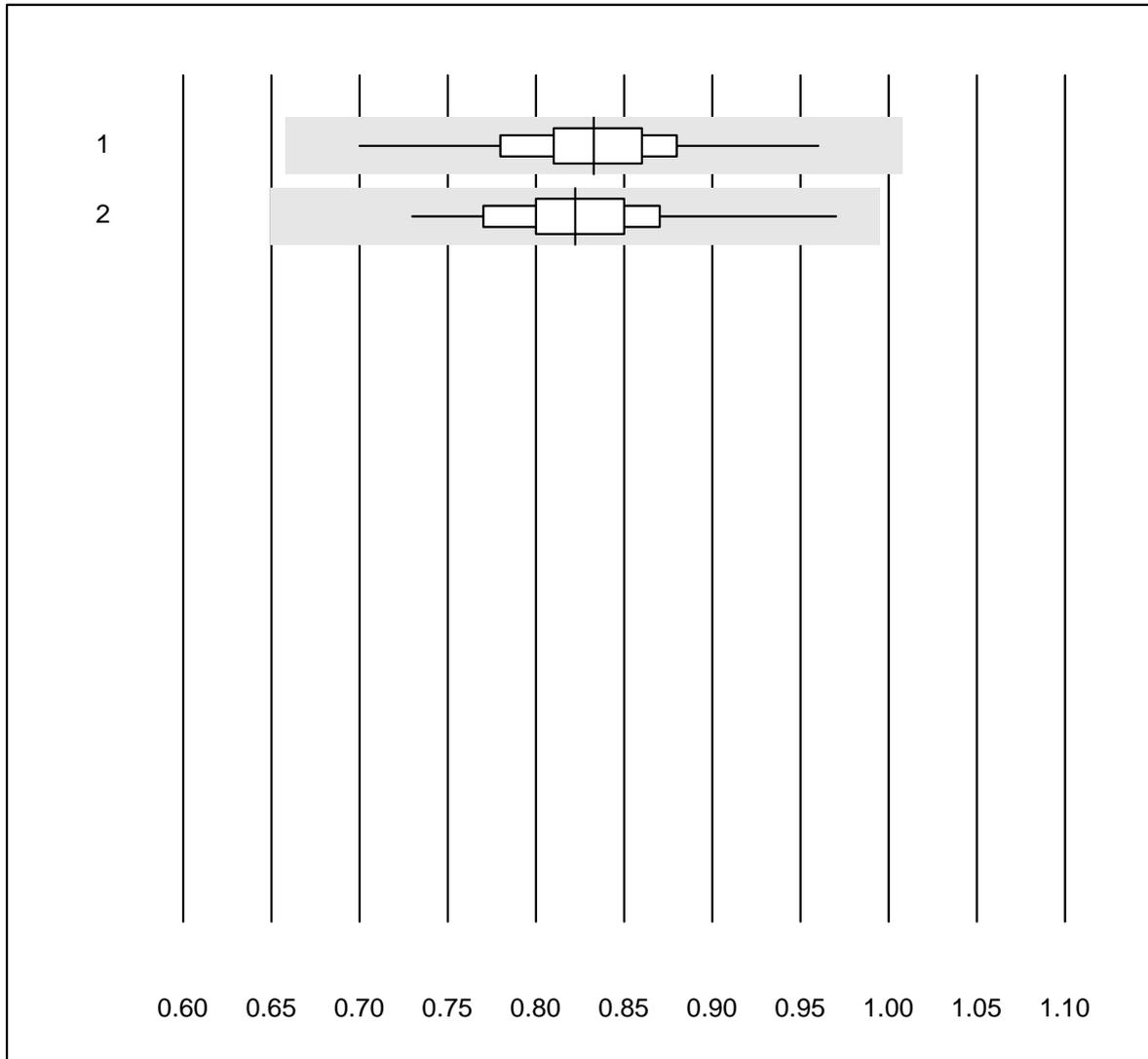
QUALAB tolerance : 21 %   Cholesterol HDL Af/b101 (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas b101	257	91.4	0.0	8.6	0.83	4.7	e
2	Afinion	440	88.4	0.0	11.6	0.82	4.7	e

Tryglycerides Af/b101

| | 1.10 | 1.17 | 1.24 | 1.31 | 1.38 | 1.45 | 1.52 | 1.59 | 1.66 | 1.73 | 1.80 |
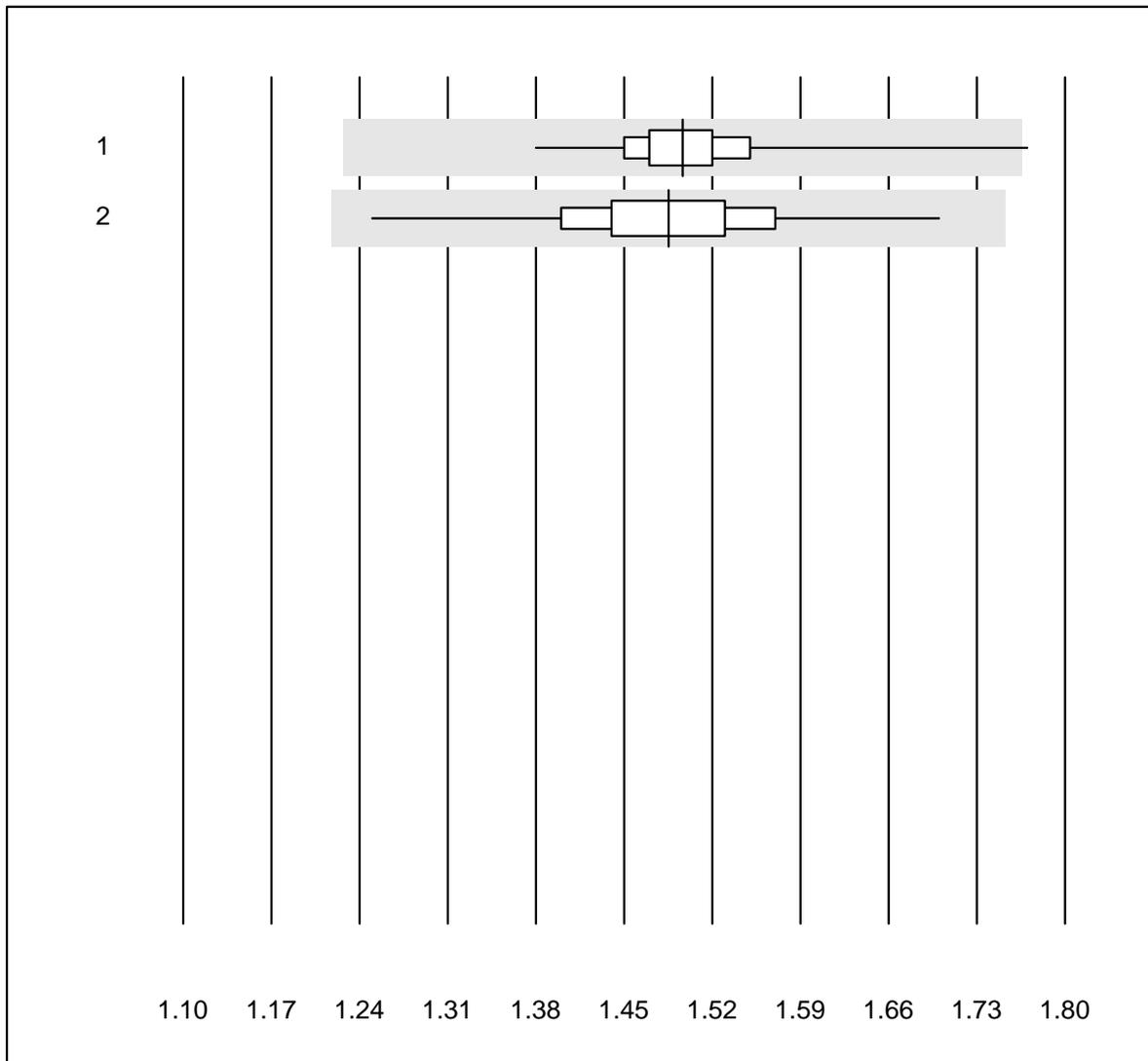
QUALAB tolerance : 18 %   Tryglycerides Af/b101 (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas b101	257	98.0	0.4	1.6	1.50	3.1	e
2	Afinion	444	99.5	0.0	0.5	1.49	4.5	e

Troponin I S

QUALAB tolerance : 24 %

Troponin I S (ng/l)
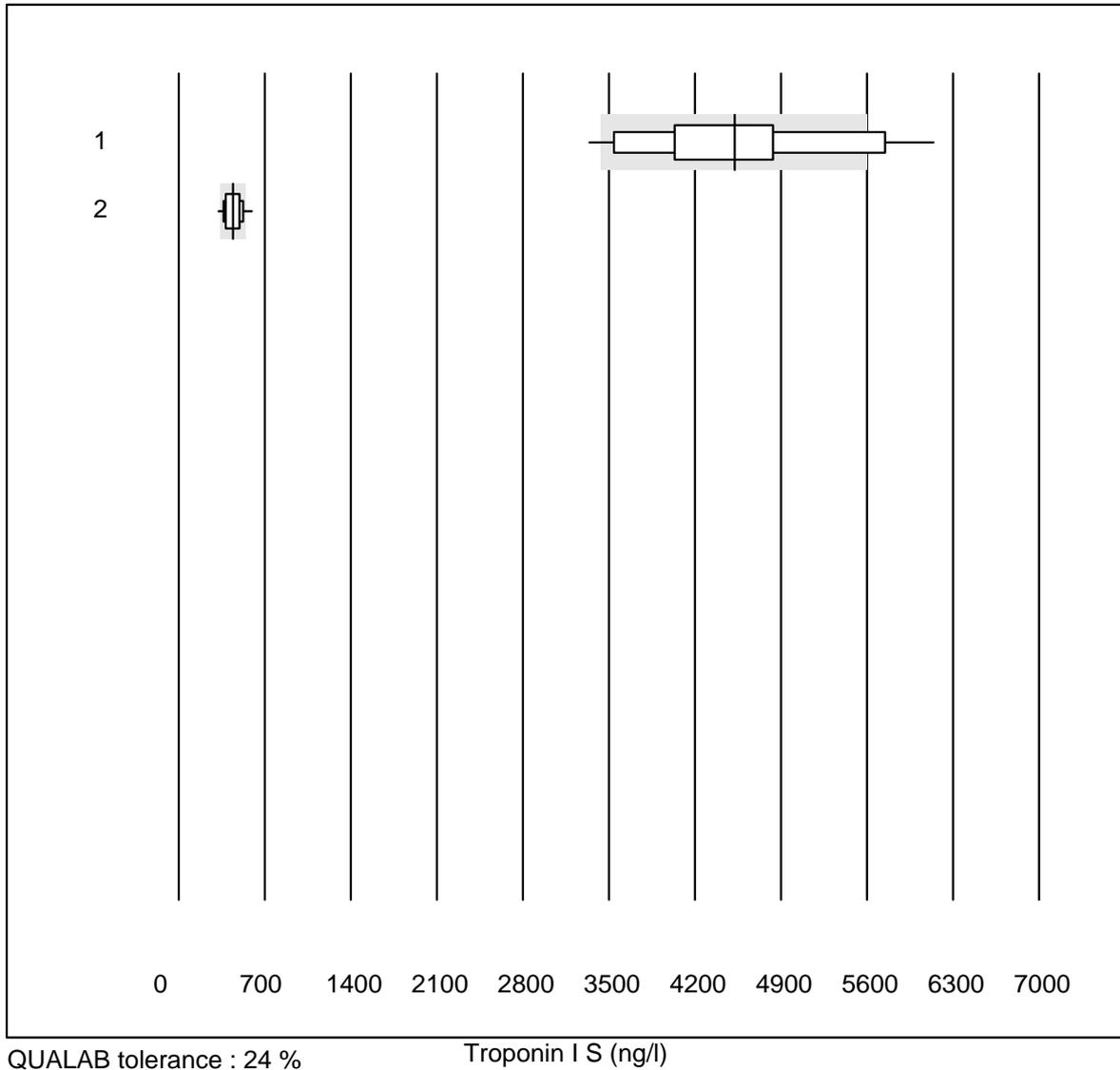
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	AFIAS (Gen. 1)	24	70.8	16.7	12.5	4521.00	17.5	e*
2	AFIAS	172	91.3	5.8	2.9	438.55	14.4	e

One result was submitted but not published because the method group was too small. (<4 results per group)

D-dimer qn S

0.250 0.285 0.320 0.355 0.390 0.425 0.460 0.495 0.530 0.565 0.600
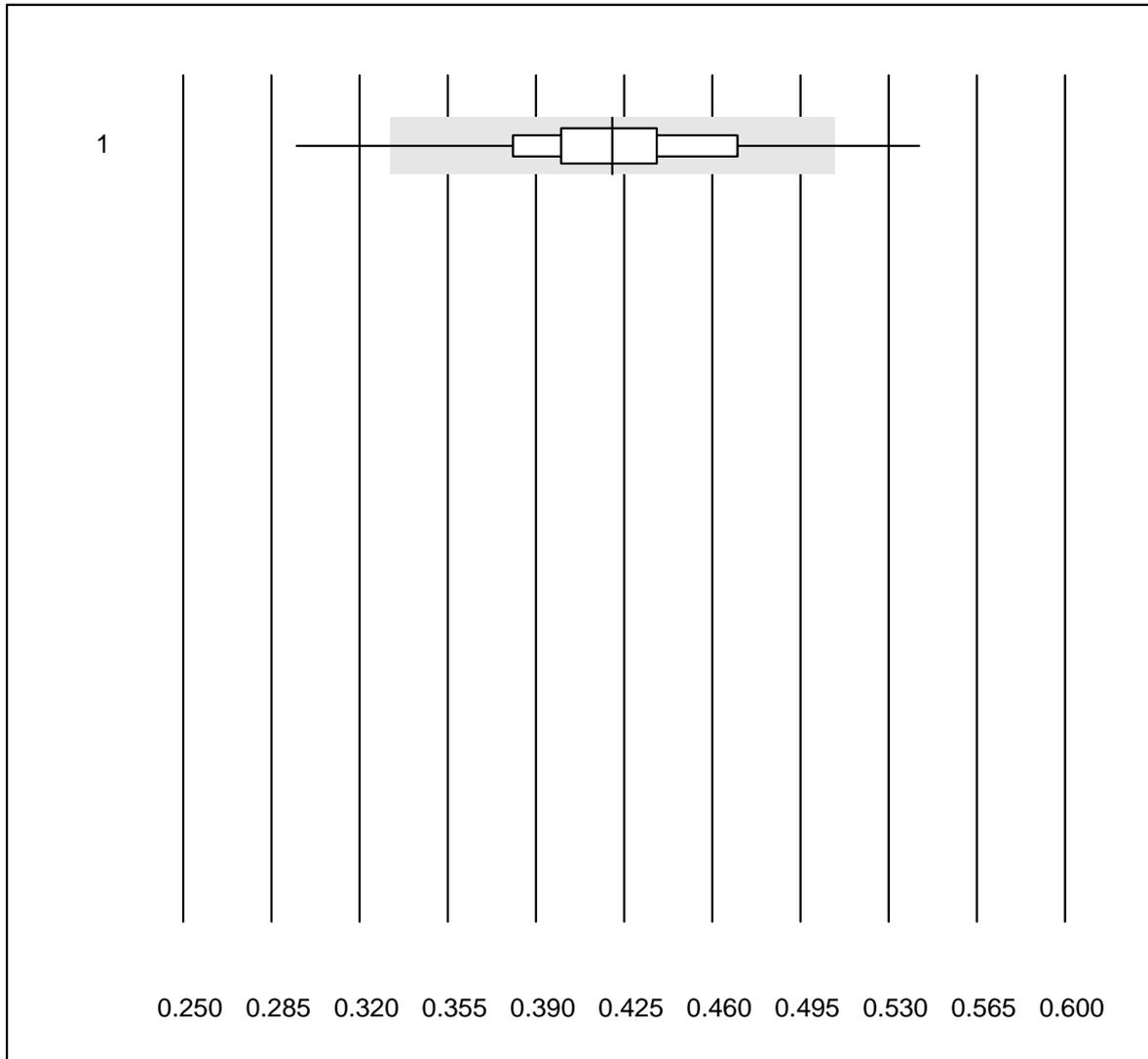
QUALAB tolerance : 21 %   D-dimer qn S (mg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	AFIAS	200	88.5	3.0	8.5	0.42	8.9	e

One result was submitted but not published because the method group was too small. (<4 results per group)

NT-proBNP S
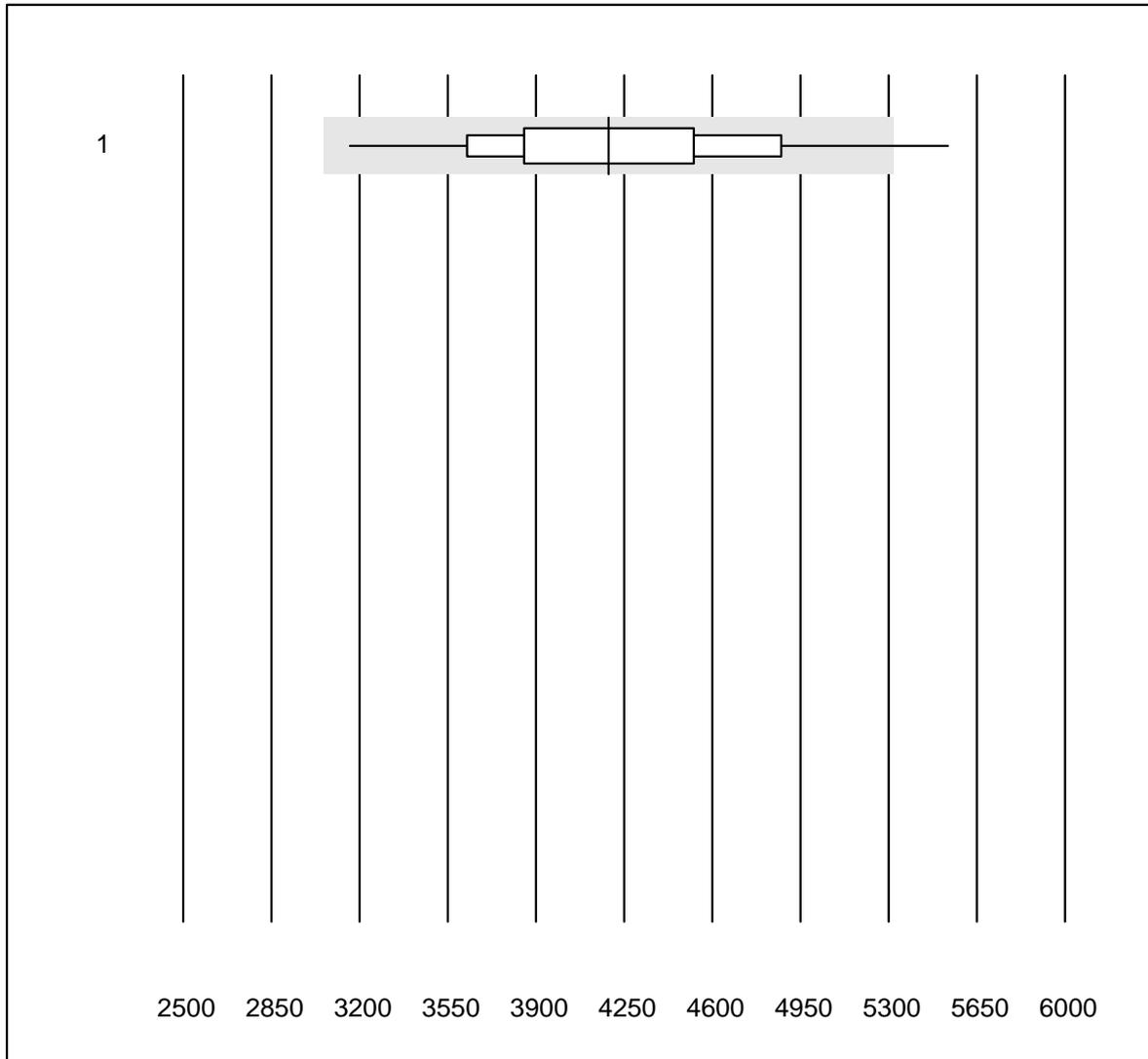
QUALAB tolerance : 27 %   NT-proBNP S (ng/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	AFIAS	151	98.0	0.7	1.3	4187.0	11.0	e

Lipase

QUALAB tolerance : 18 %

Lipase (U/l)
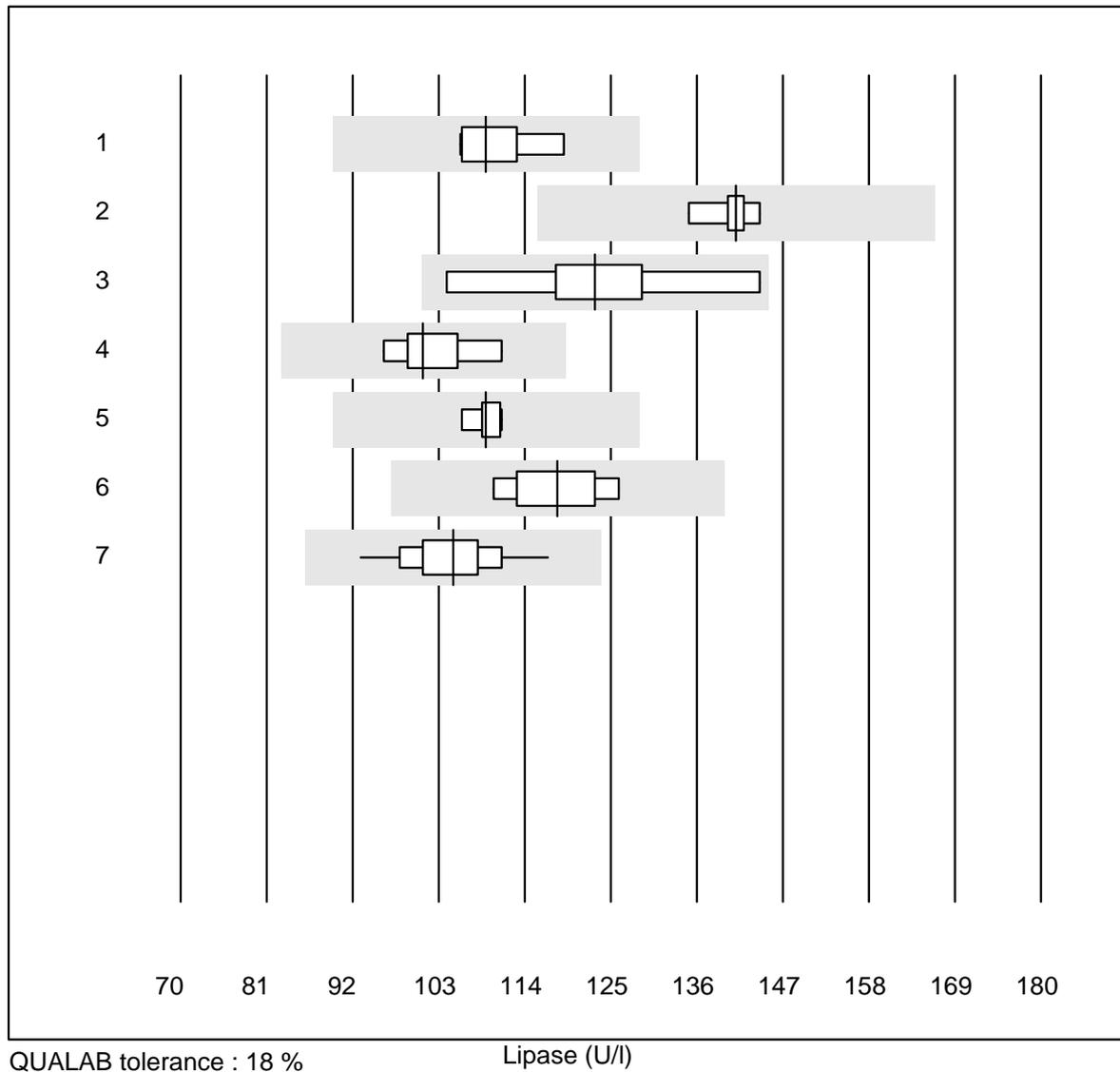
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Roche	6	100.0	0.0	0.0	109.0	4.6	e
2	Alinity	6	100.0	0.0	0.0	141.0	2.2	e
3	Cobas Integra 800/40	5	100.0	0.0	0.0	123.0	11.9	e*
4	Architect	7	100.0	0.0	0.0	101.0	4.9	e
5	Beckman	5	100.0	0.0	0.0	109.0	1.9	e
6	Cobas	9	100.0	0.0	0.0	118.2	4.8	e
7	Fuji Dri-Chem	175	98.3	0.0	1.7	104.9	4.9	e

7 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Bicarbonat

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1
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19.0   20.2   21.4   22.6   23.8   25.0   26.2   27.4   28.6   29.8   31.0
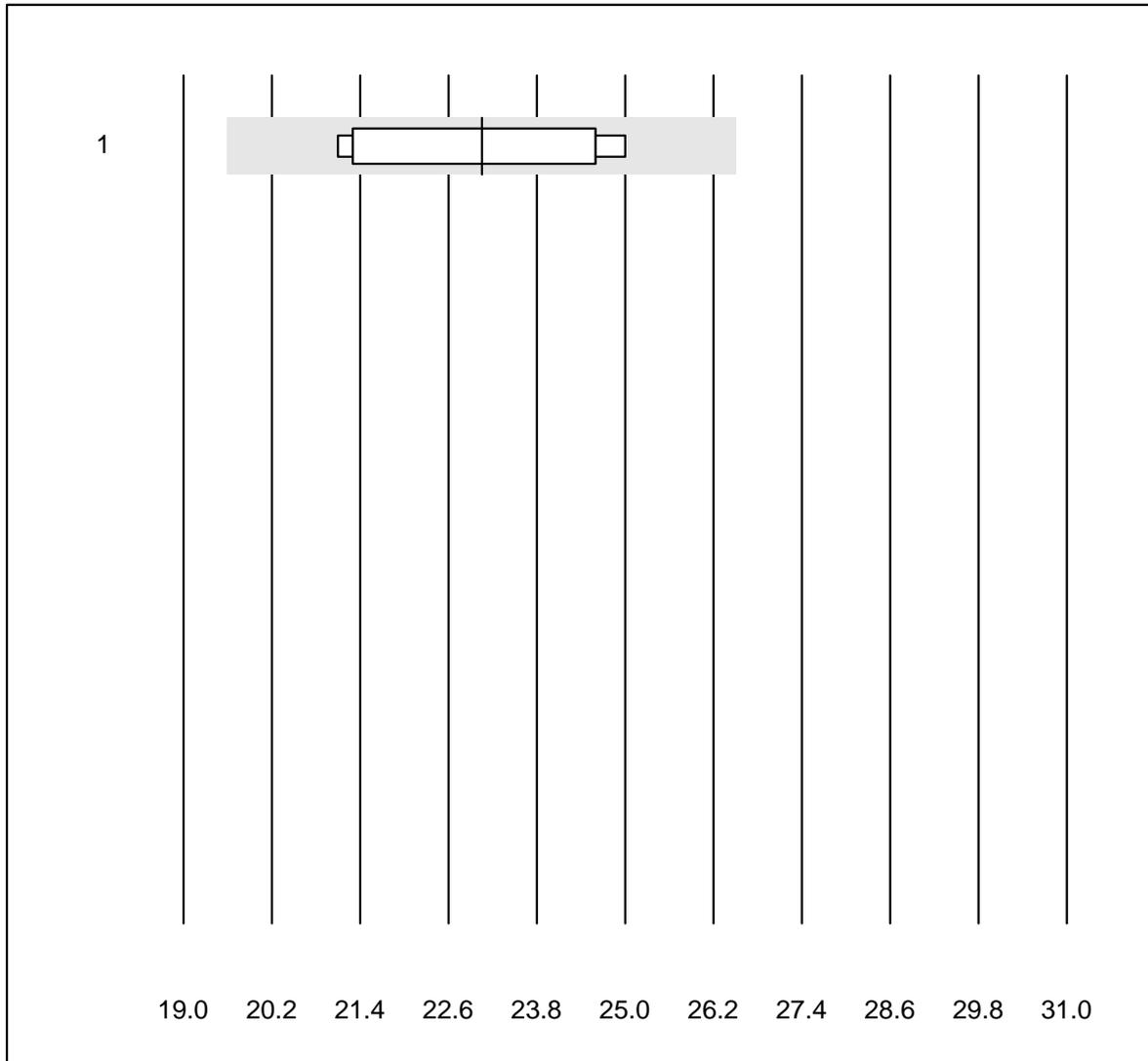
MQ tolerance : 15 %   Bicarbonat (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Other methods	5	100.0	0.0	0.0	23.1	8.6	a

6 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Glucose CSF
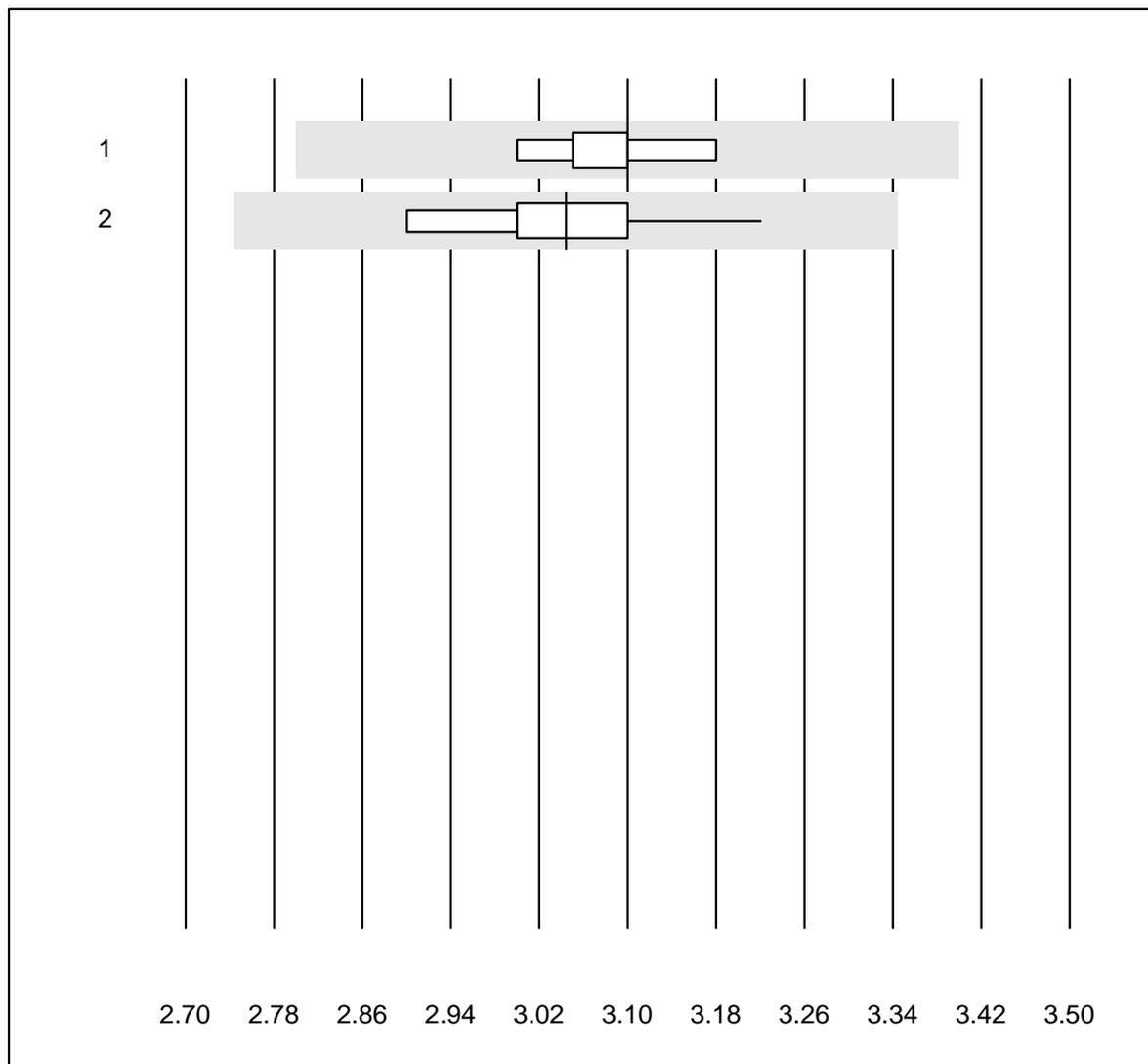
Glucose CSF (mmol/l)

QUALAB tolerance : 9 %
(< 3.30: +/- 0.30 mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	6	100.0	0.0	0.0	3.10	1.9	e
2	Other methods	11	100.0	0.0	0.0	3.04	3.1	e

Lactate CSF

1.50 1.65 1.80 1.95 2.10 2.25 2.40 2.55 2.70 2.85 3.00
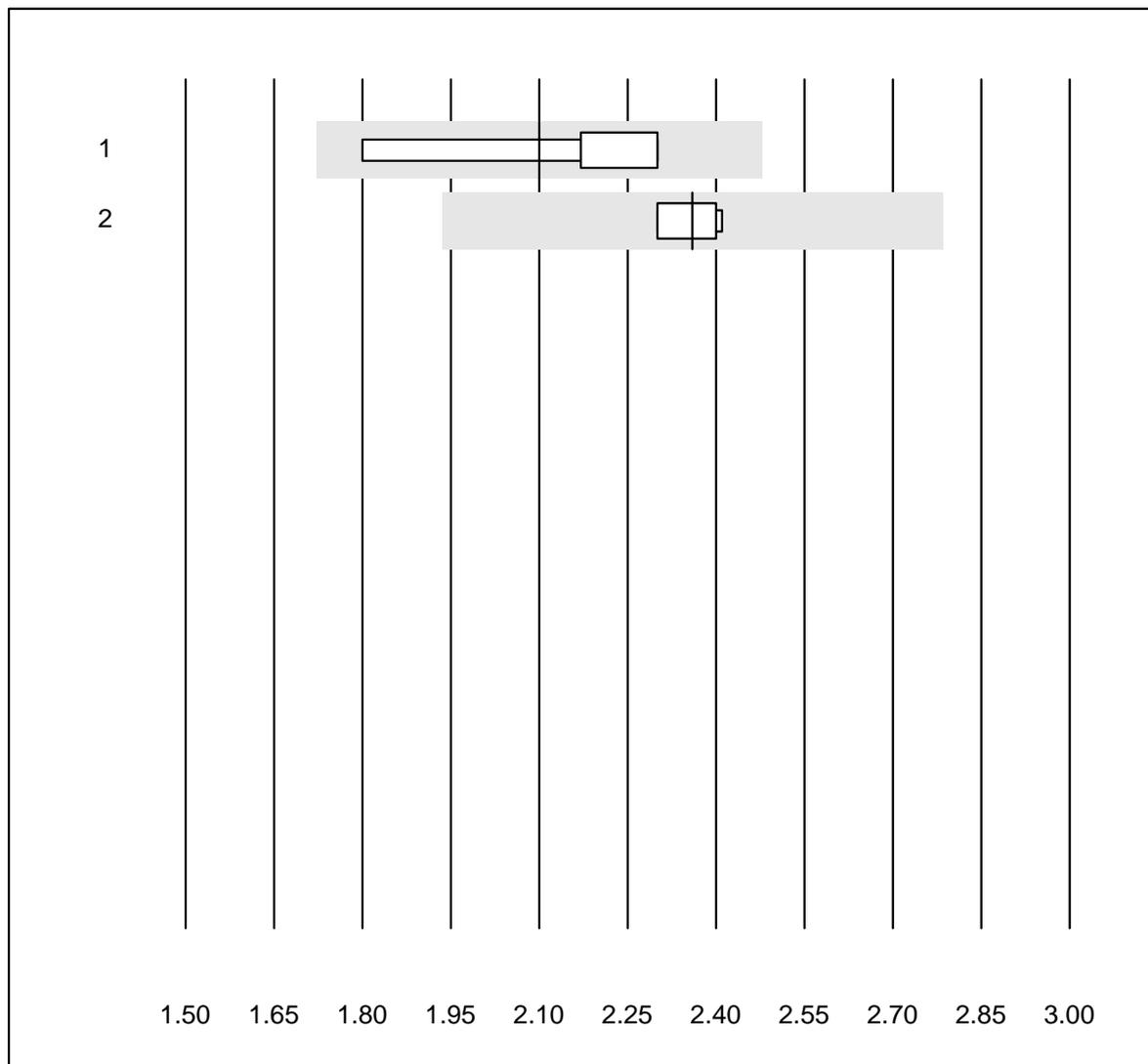
QUALAB tolerance : 18 %

Lactate CSF (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	7	100.0	0.0	0.0	2.10	8.1	a
2	Other methods	7	100.0	0.0	0.0	2.36	1.8	e

Protein CSF
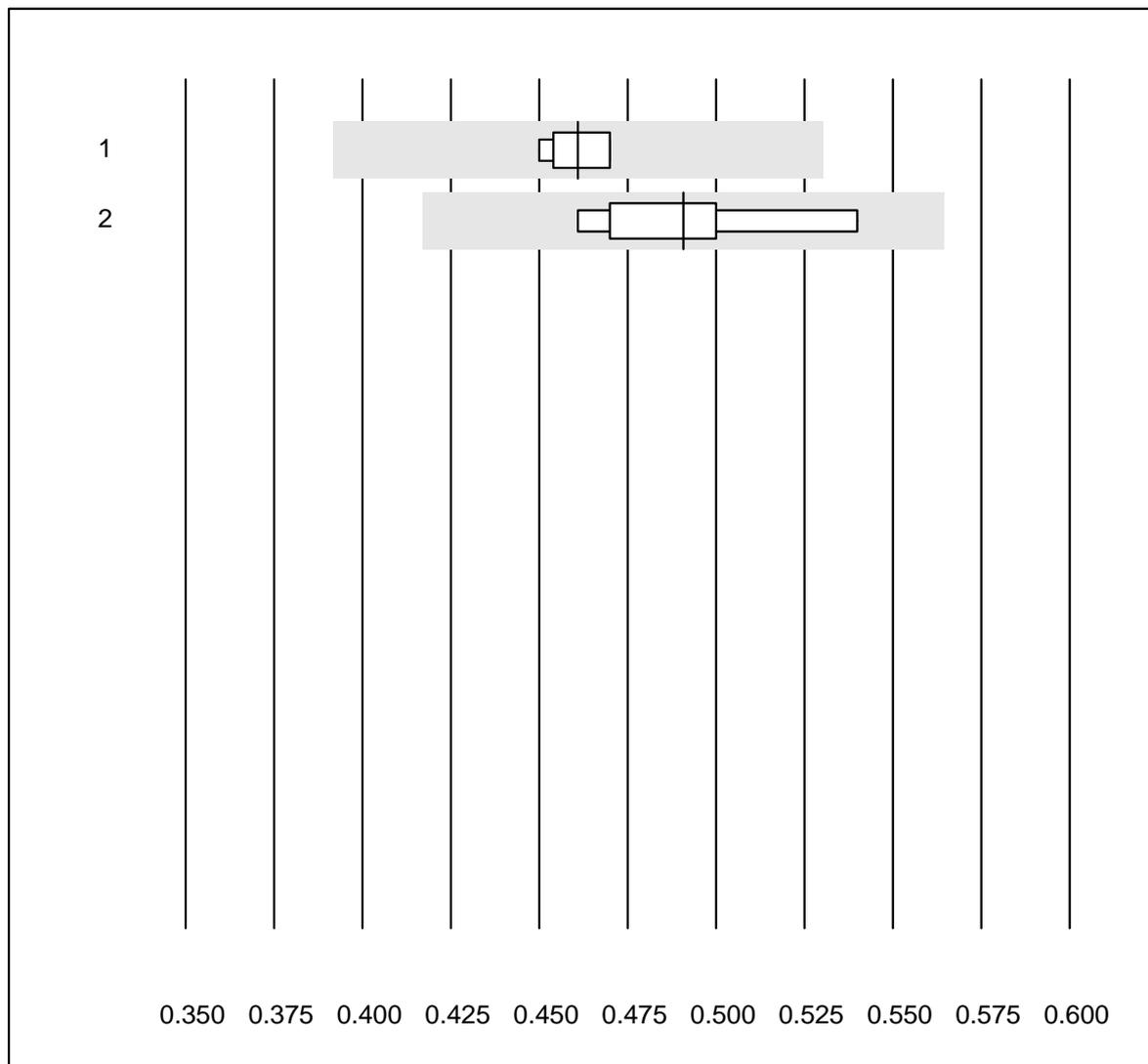
QUALAB tolerance : 15 %   Protein CSF (g/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	6	100.0	0.0	0.0	0.46	1.8	e
2	Other methods	9	100.0	0.0	0.0	0.49	5.4	e

One result was submitted but not published because the method group was too small. (<4 results per group)

Albumine CSF
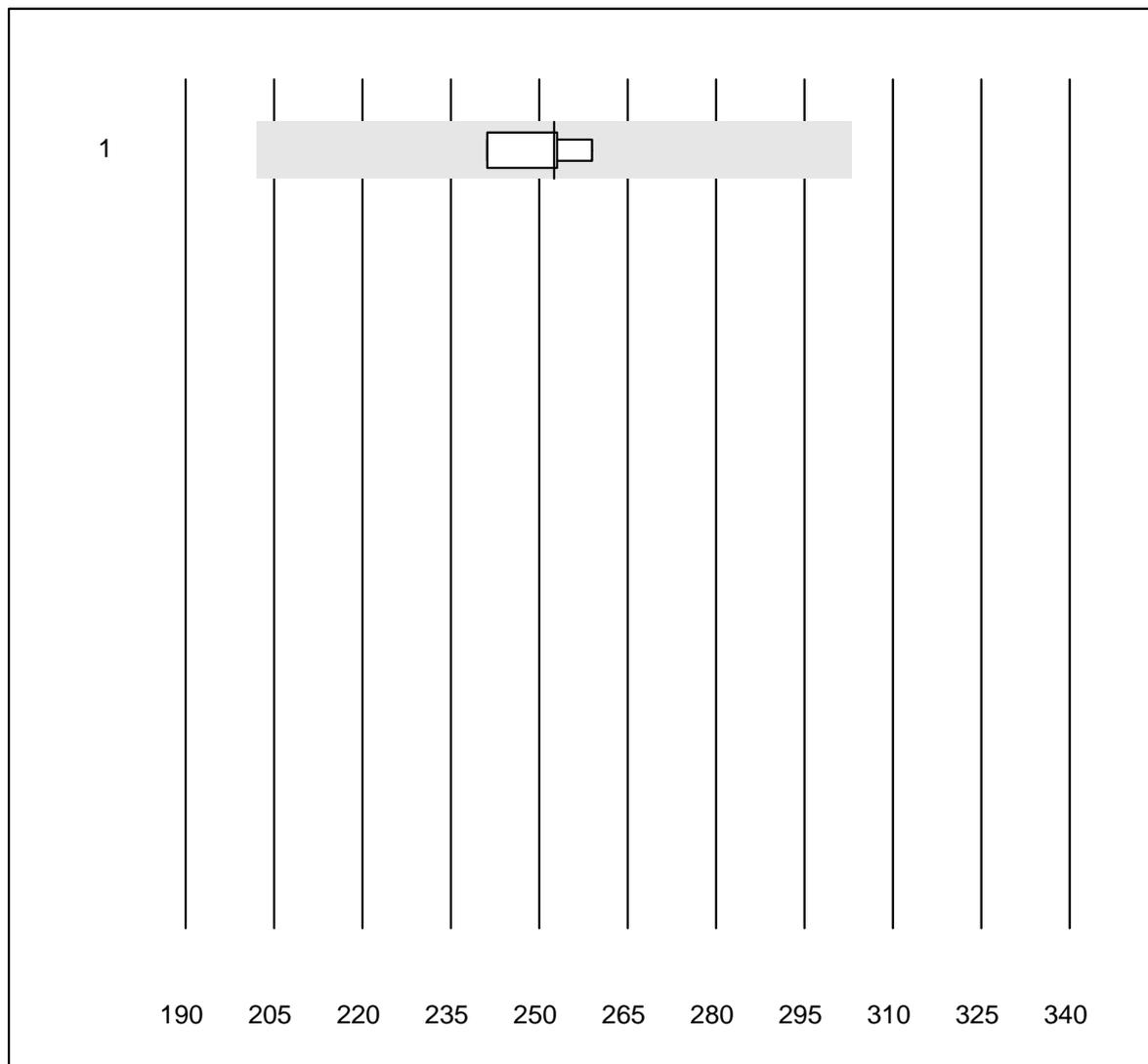
190   205   220   235   250   265   280   295   310   325   340

Albumine CSF (mg/l)

MQ tolerance : 20 %

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	4	100.0	0.0	0.0	252.50	2.9	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

K36 CDT (carbohydrate deficient transferrin)

CDT
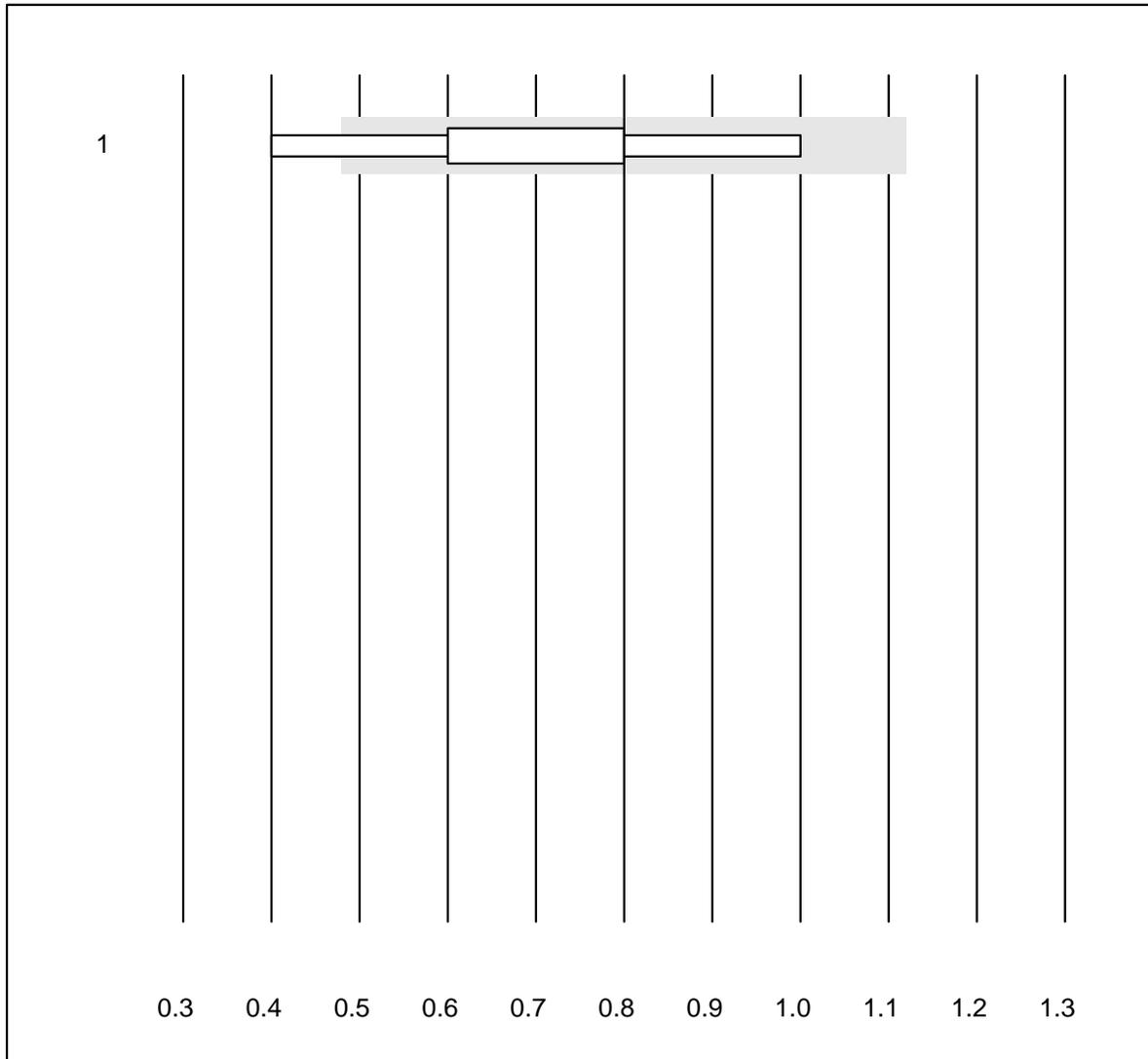
MQ tolerance : 20 %

CDT (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	5	80.0	20.0	0.0	0.80	31.7	a

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Tacrolimus


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    1
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| | 10.0 | 11.1 | 12.2 | 13.3 | 14.4 | 15.5 | 16.6 | 17.7 | 18.8 | 19.9 | 21.0 |
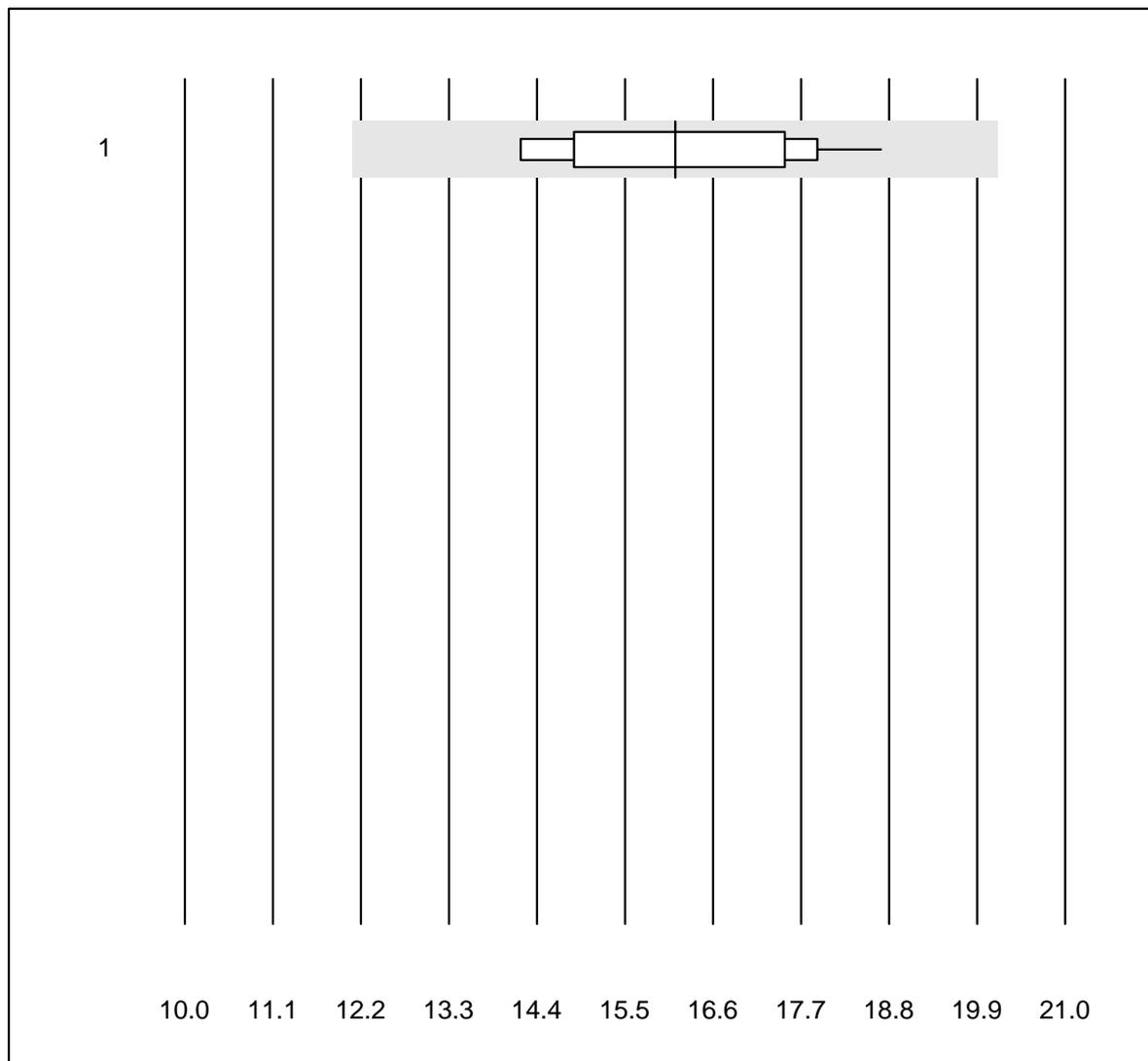
MQ tolerance : 25 %   Tacrolimus (µg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	10	100.0	0.0	0.0	16.1	9.6	e*

Totalprotein E

1

64 66 68 70 72 74 76 78 80 82 84
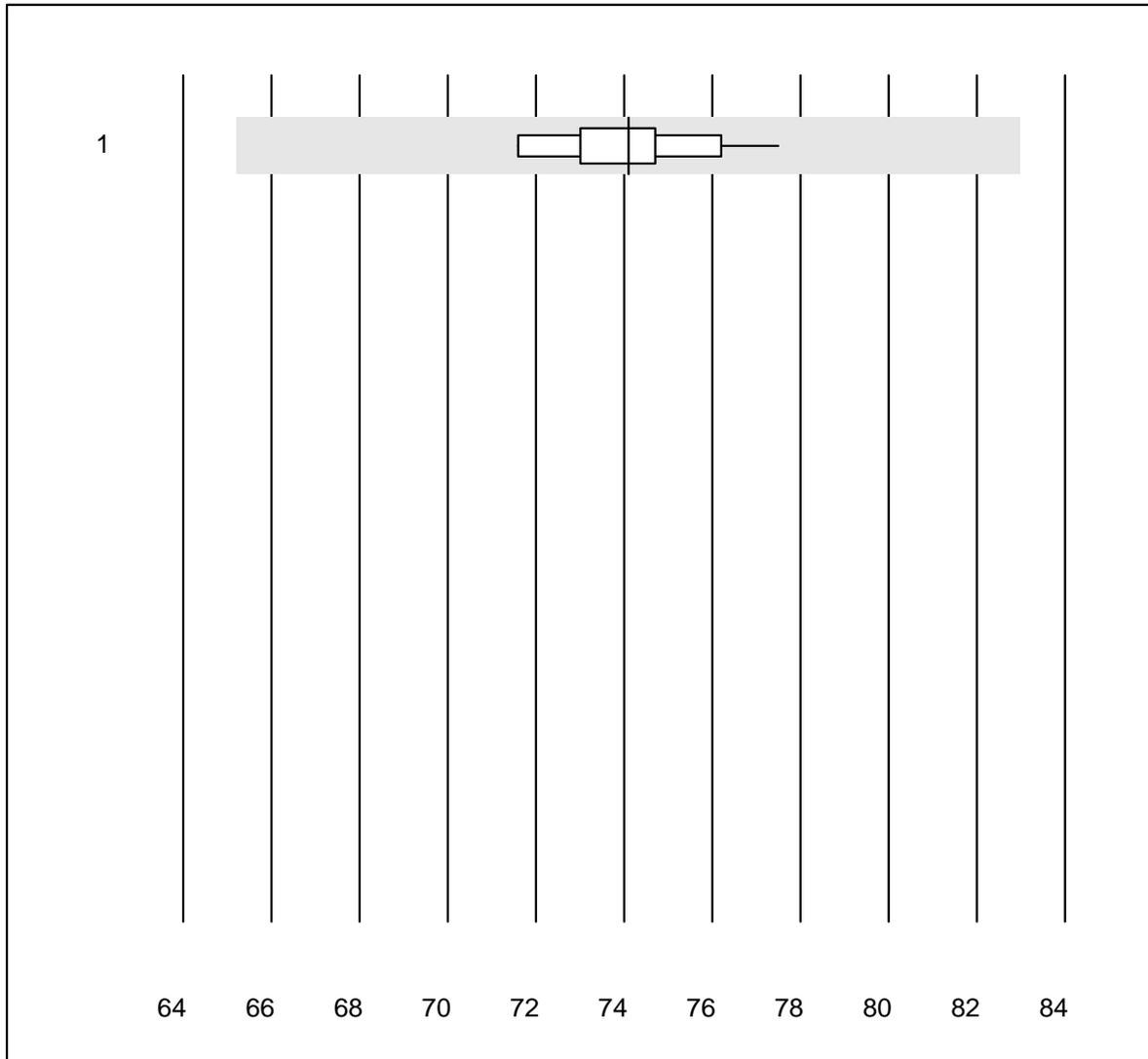
MQ tolerance : 12 %

Totalprotein E (g/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	17	94.1	0.0	5.9	74.1	2.0	e

Albumin E
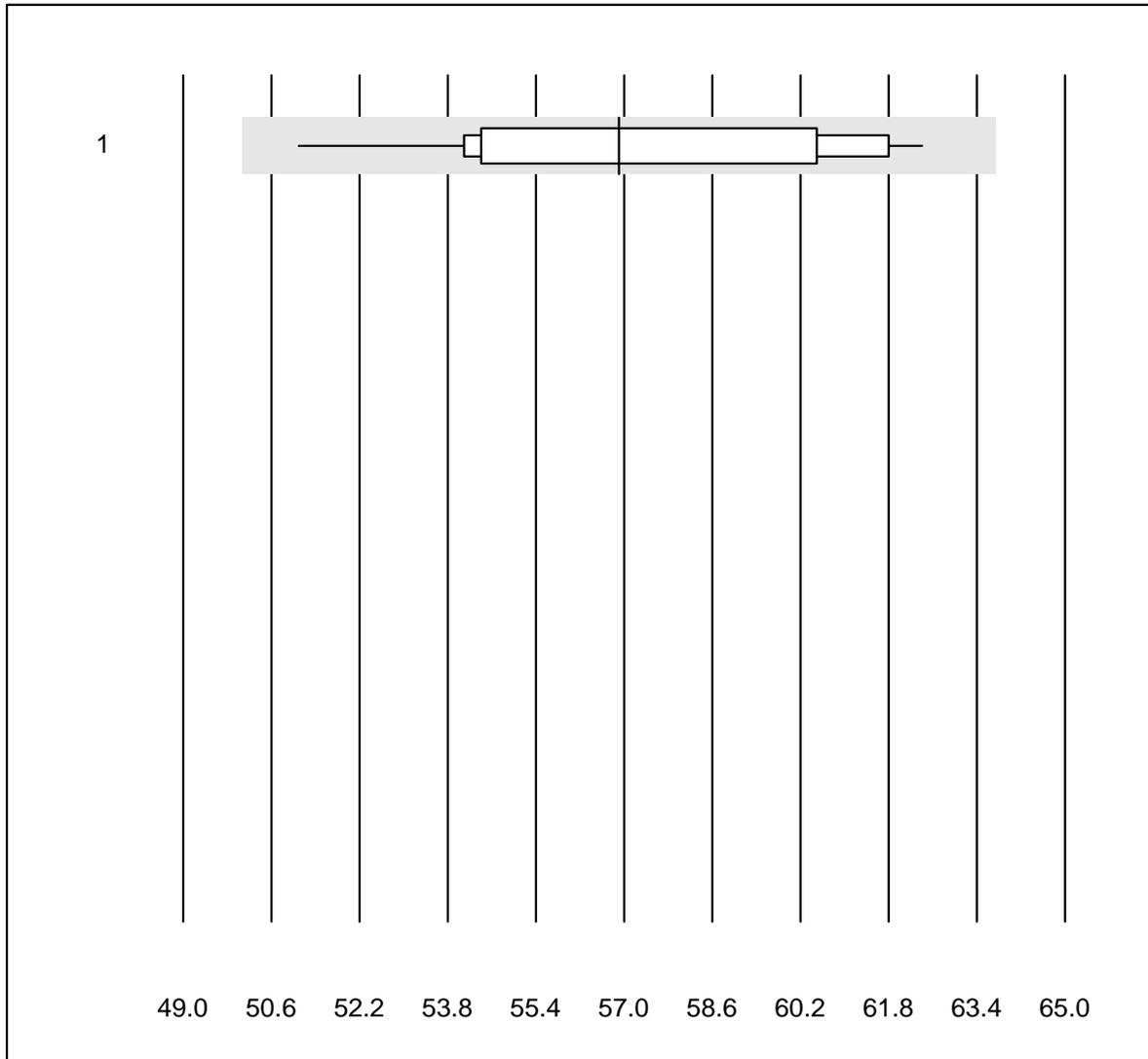
1					

49.0 50.6 52.2 53.8 55.4 57.0 58.6 60.2 61.8 63.4 65.0

Albumin E (%)

MQ tolerance : 12 %

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Electrophoresis	24	100.0	0.0	0.0	56.9	6.0	e

alpha-1-Globuline

MQ tolerance : 30 % alpha-1-Globuline (%)
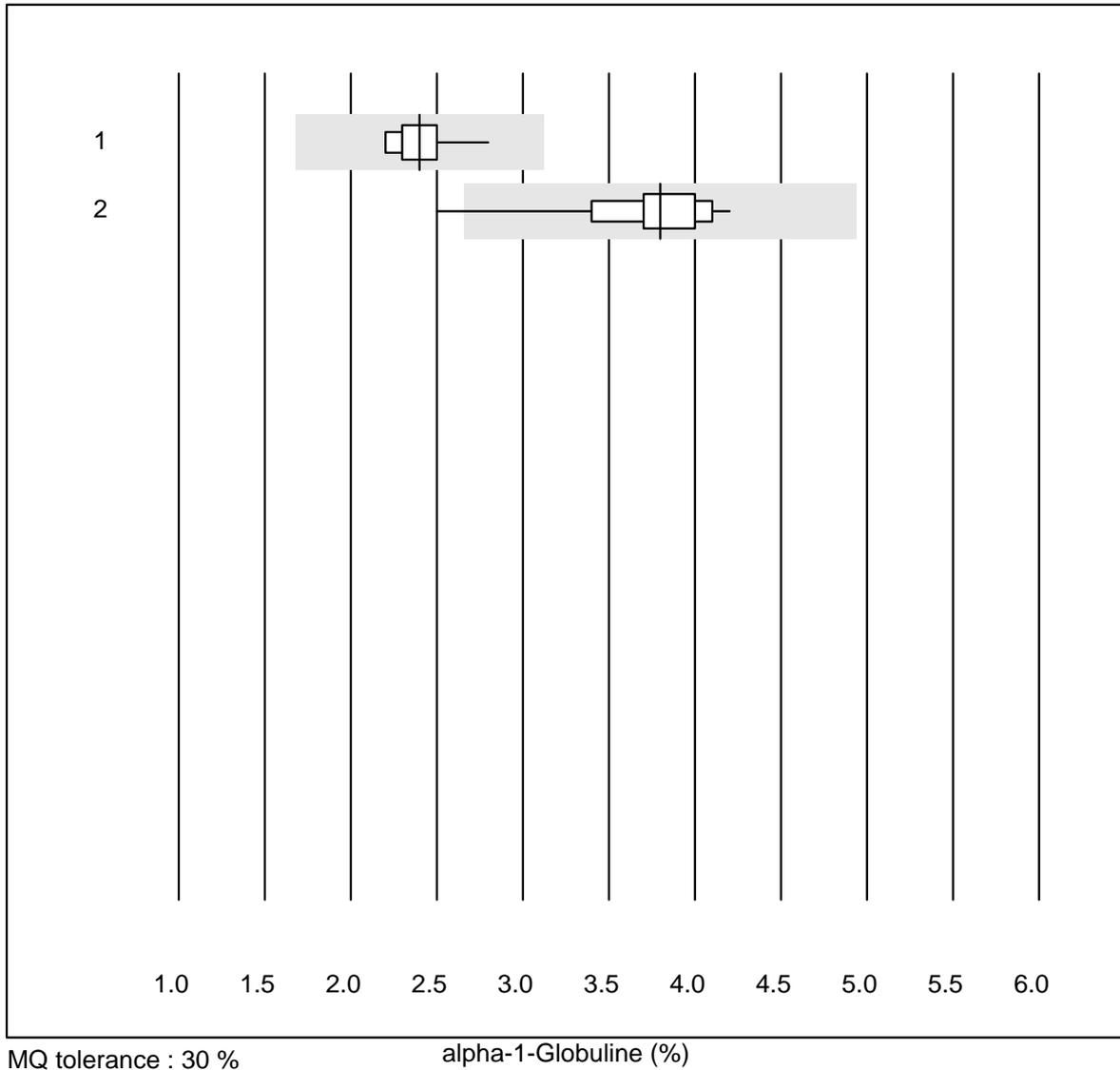
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Electrophoresis	11	100.0	0.0	0.0	2.4	7.2	e
2	capillary electropho	12	91.7	8.3	0.0	3.8	12.1	e

alpha-2-Globuline

6.0   6.7   7.4   8.1   8.8   9.5   10.2   10.9   11.6   12.3   13.0
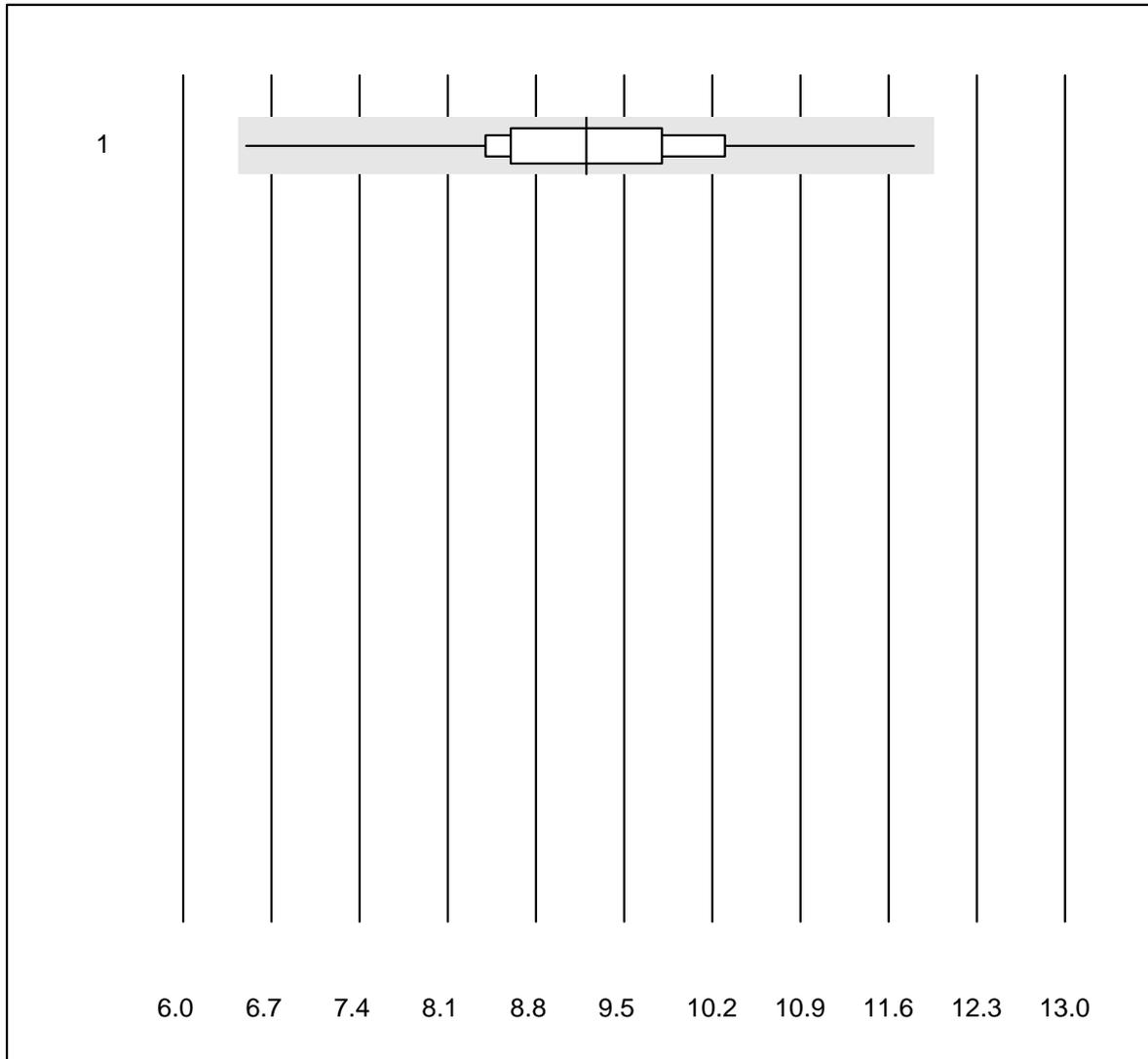
MQ tolerance : 30 %   alpha-2-Globuline (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Electrophoresis	22	100.0	0.0	0.0	9.2	11.4	e

beta-Globuline

5.0   5.8   6.6   7.4   8.2   9.0   9.8   10.6   11.4   12.2   13.0
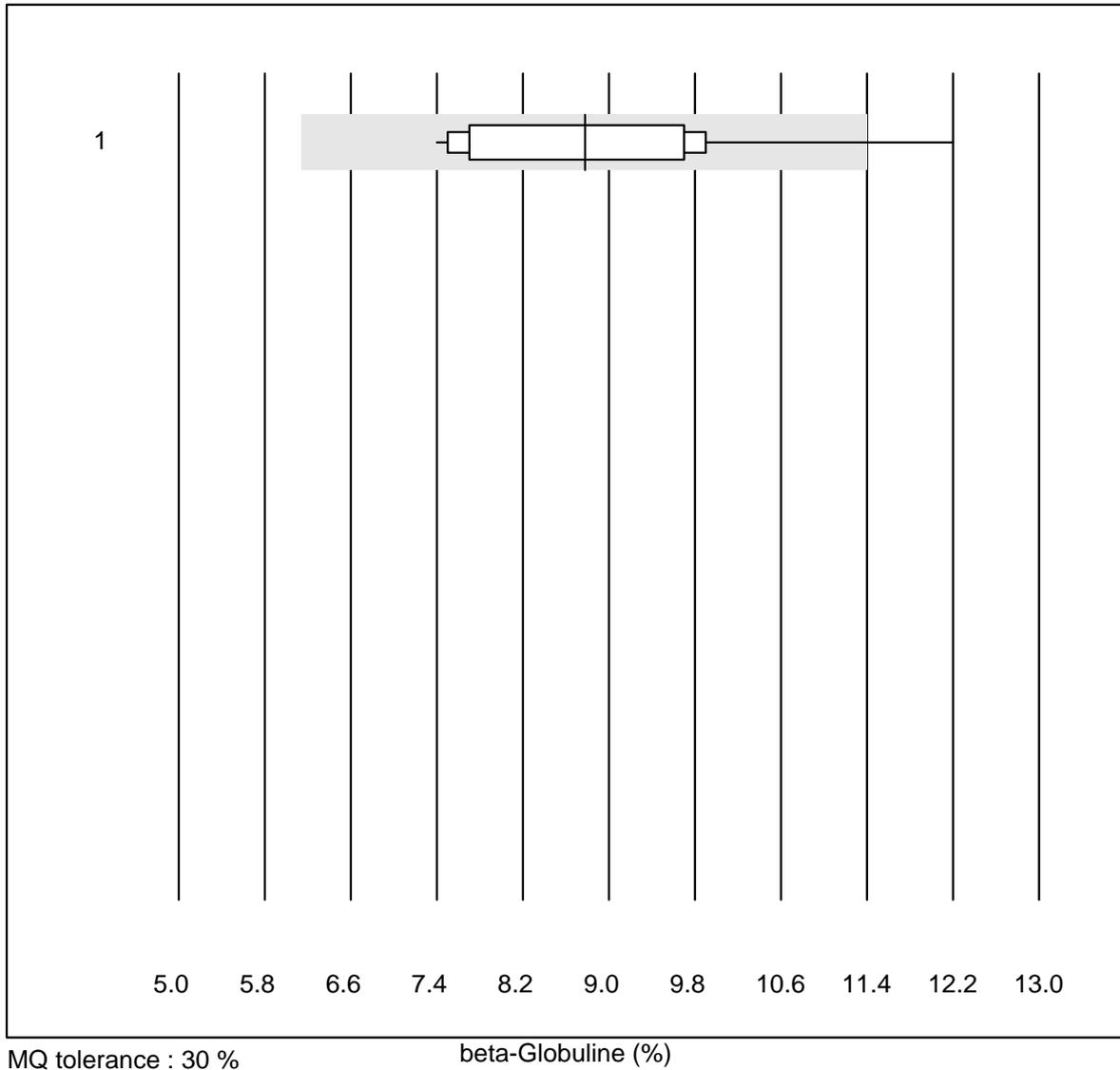
MQ tolerance : 30 %   beta-Globuline (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Electrophoresis	17	94.1	5.9	0.0	8.8	14.7	e

Beta-1-Globulin
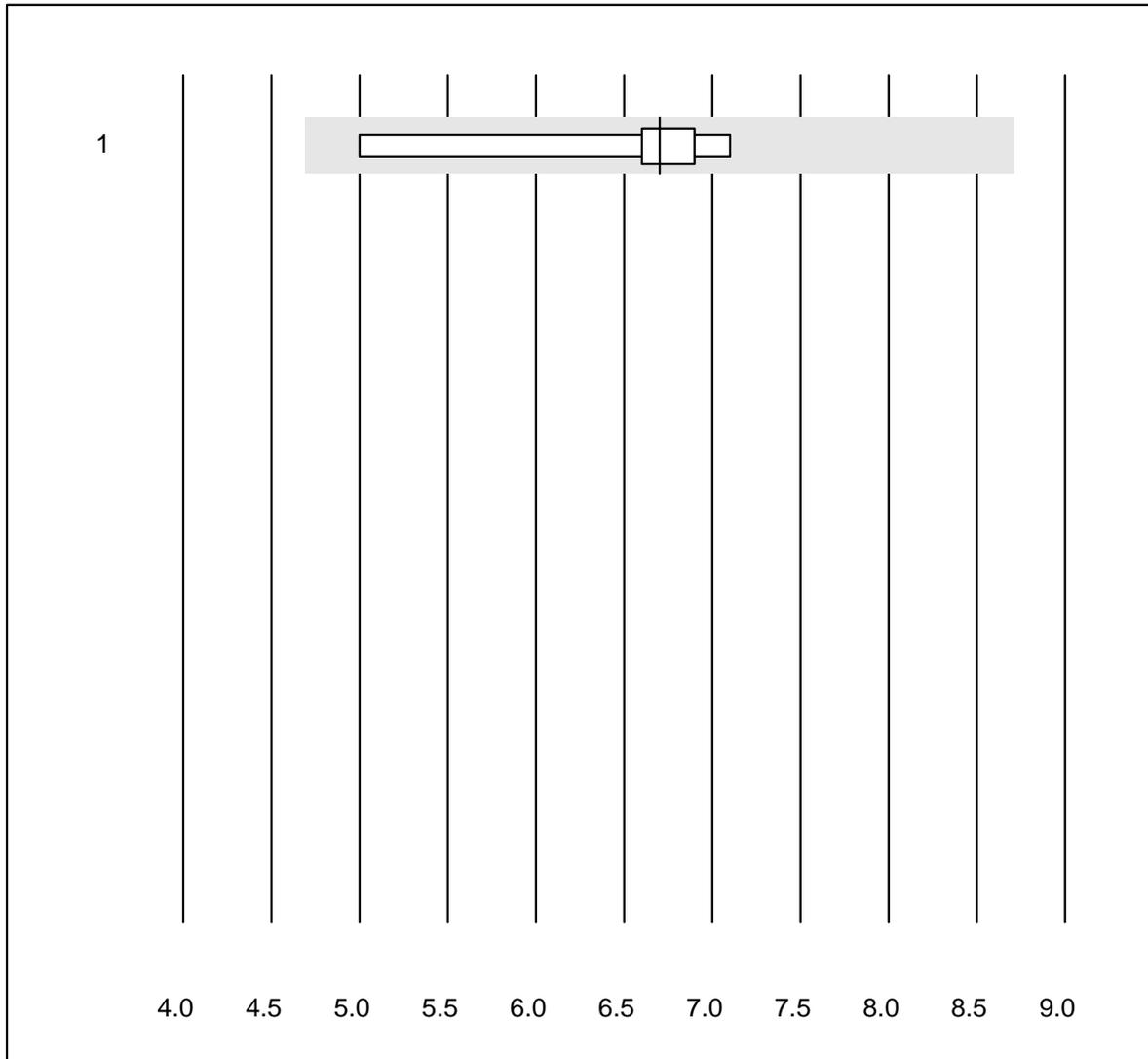
MQ tolerance : 30 %

Beta-1-Globulin (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Electrophoresis	9	100.0	0.0	0.0	6.7	9.4	e

Beta-2-Globulin
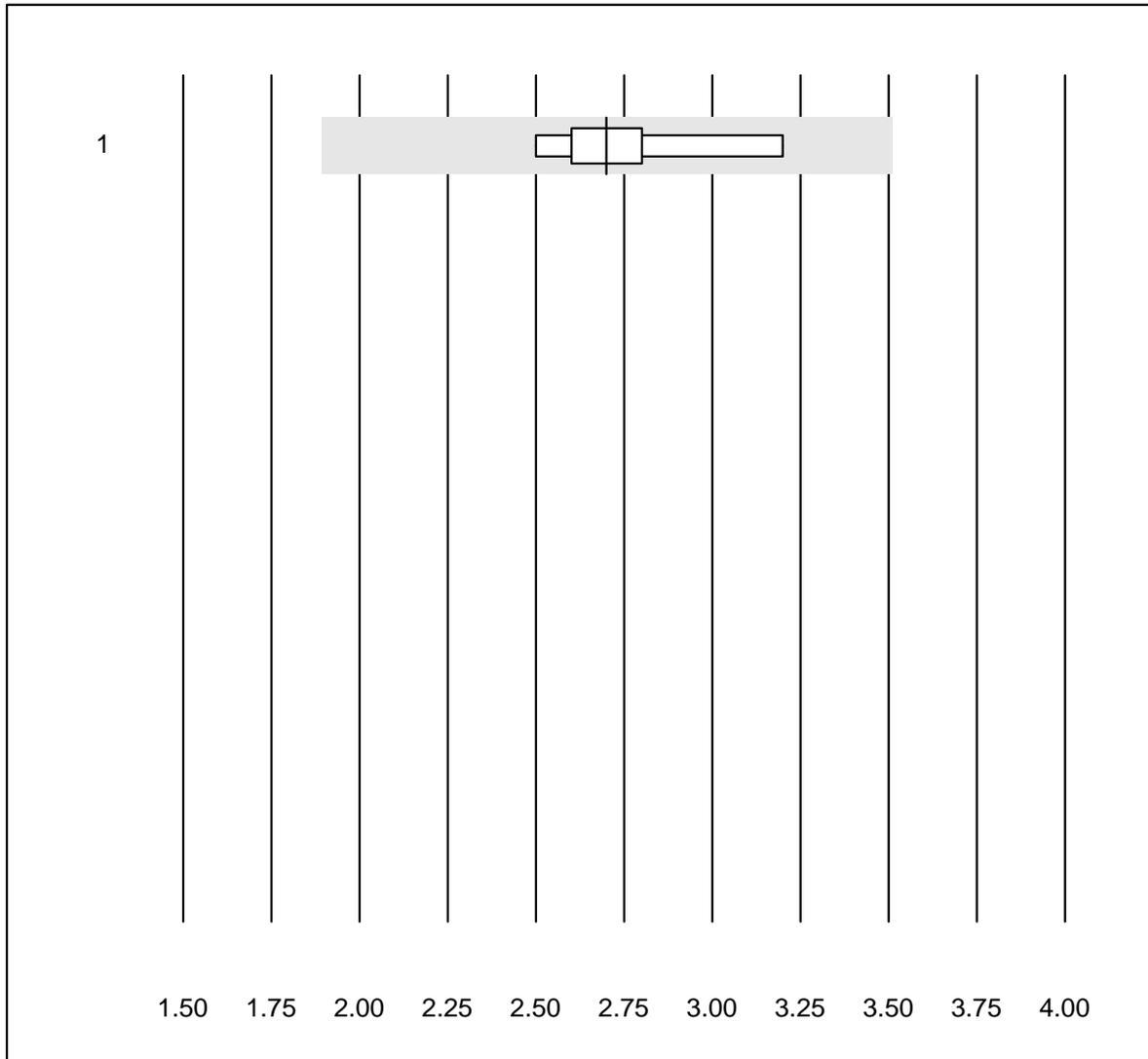
MQ tolerance : 30 %

Beta-2-Globulin (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Electrophoresis	9	100.0	0.0	0.0	2.7	8.6	e

gamma-Globuline
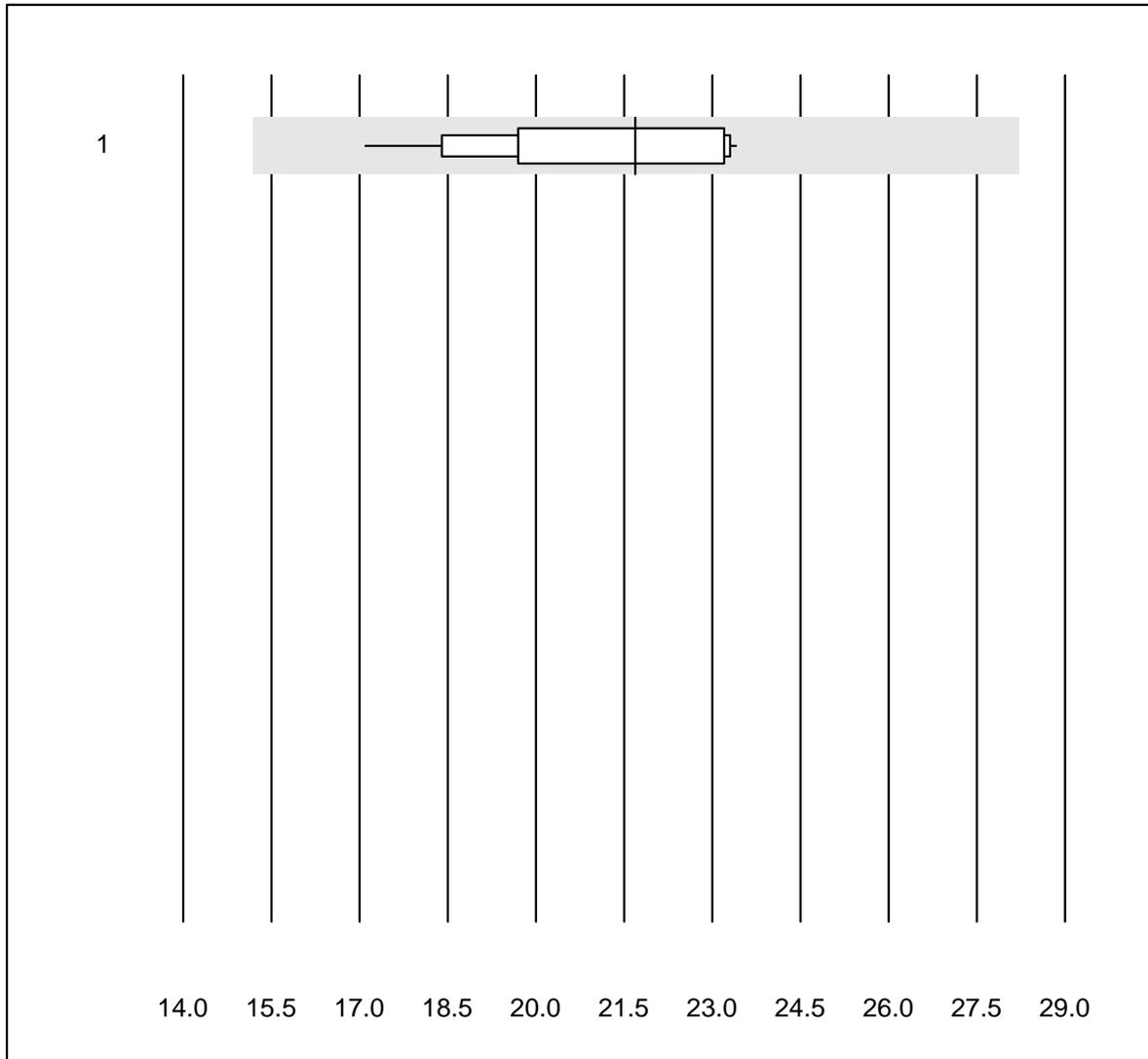
MQ tolerance : 30 %

gamma-Globuline (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Electrophoresis	19	100.0	0.0	0.0	21.7	9.7	e

Gamma-Globuline+P
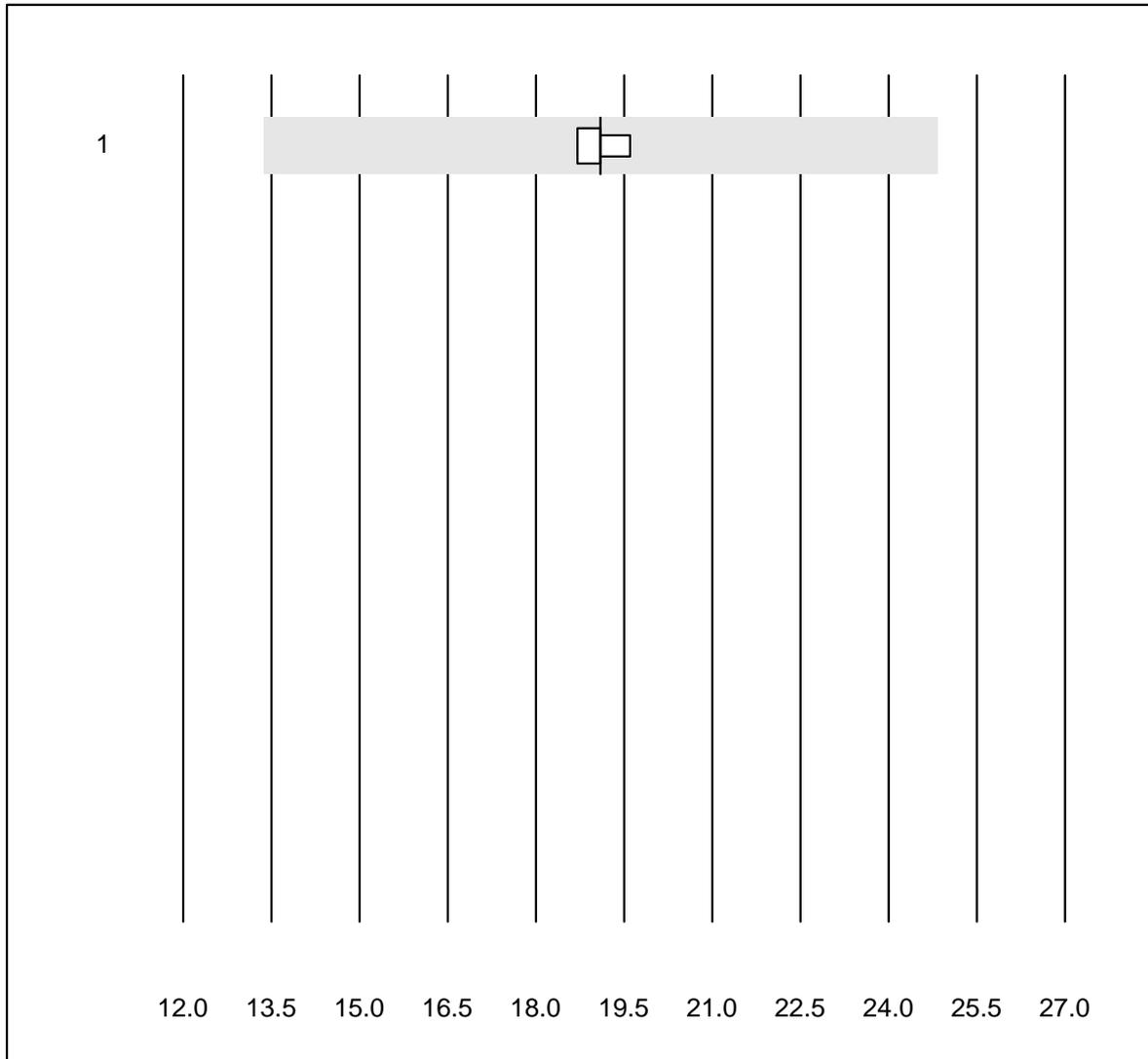
MQ tolerance : 30 %   Gamma-Globuline+P (%)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Electrophoresis	4	100.0	0.0	0.0	19.1	1.9	e

Immunfixation

| | | 2.960 | 2.968 | 2.976 | 2.984 | 2.992 | 3.000 | 3.008 | 3.016 | 3.024 | 3.032 | 3.040 |
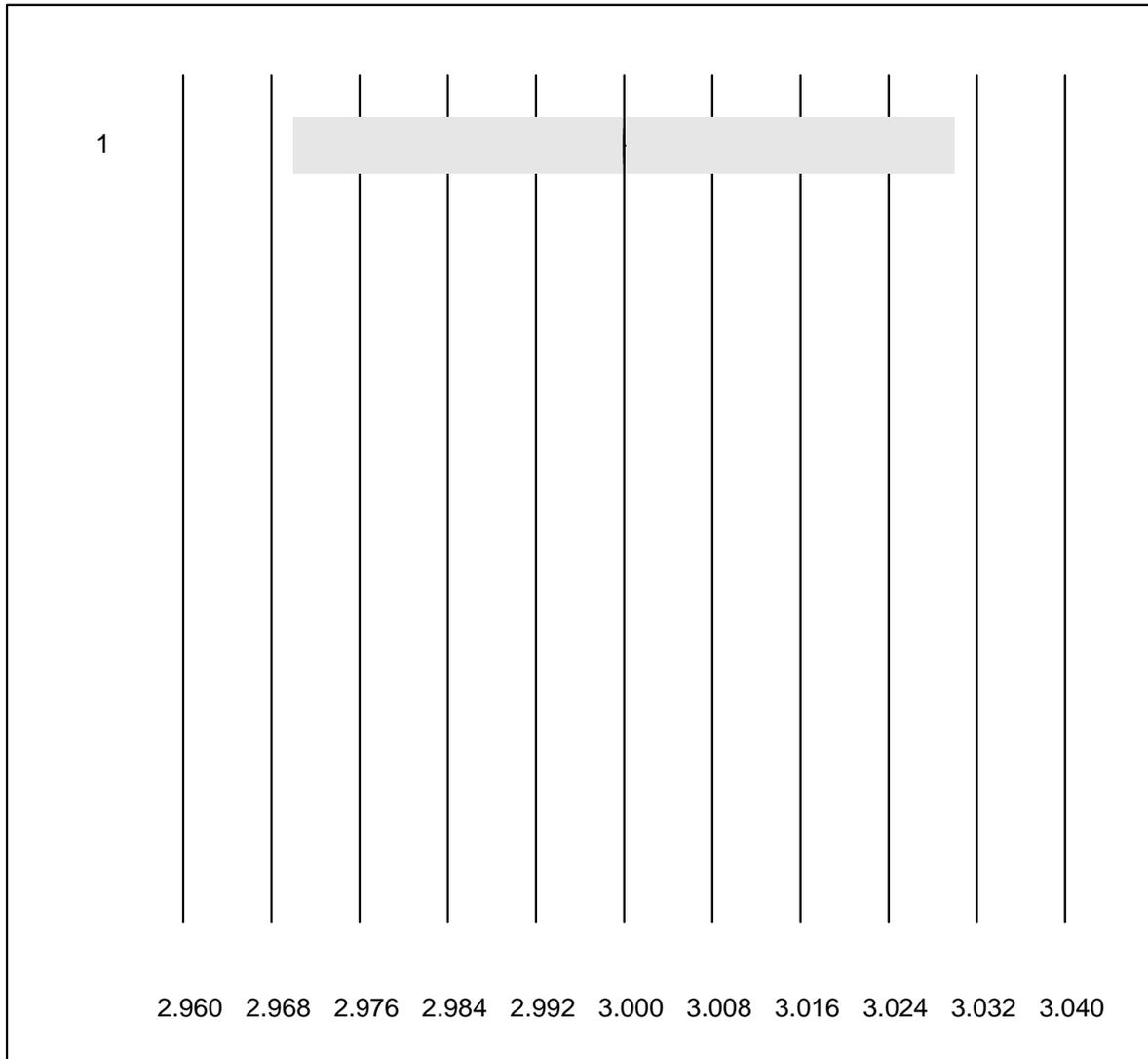
QUALAB tolerance : 1 %   Immunfixation (Code)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Interpretation	20	100.0	0.0	0.0	3	0.0	e

Folate in Erythrocytes
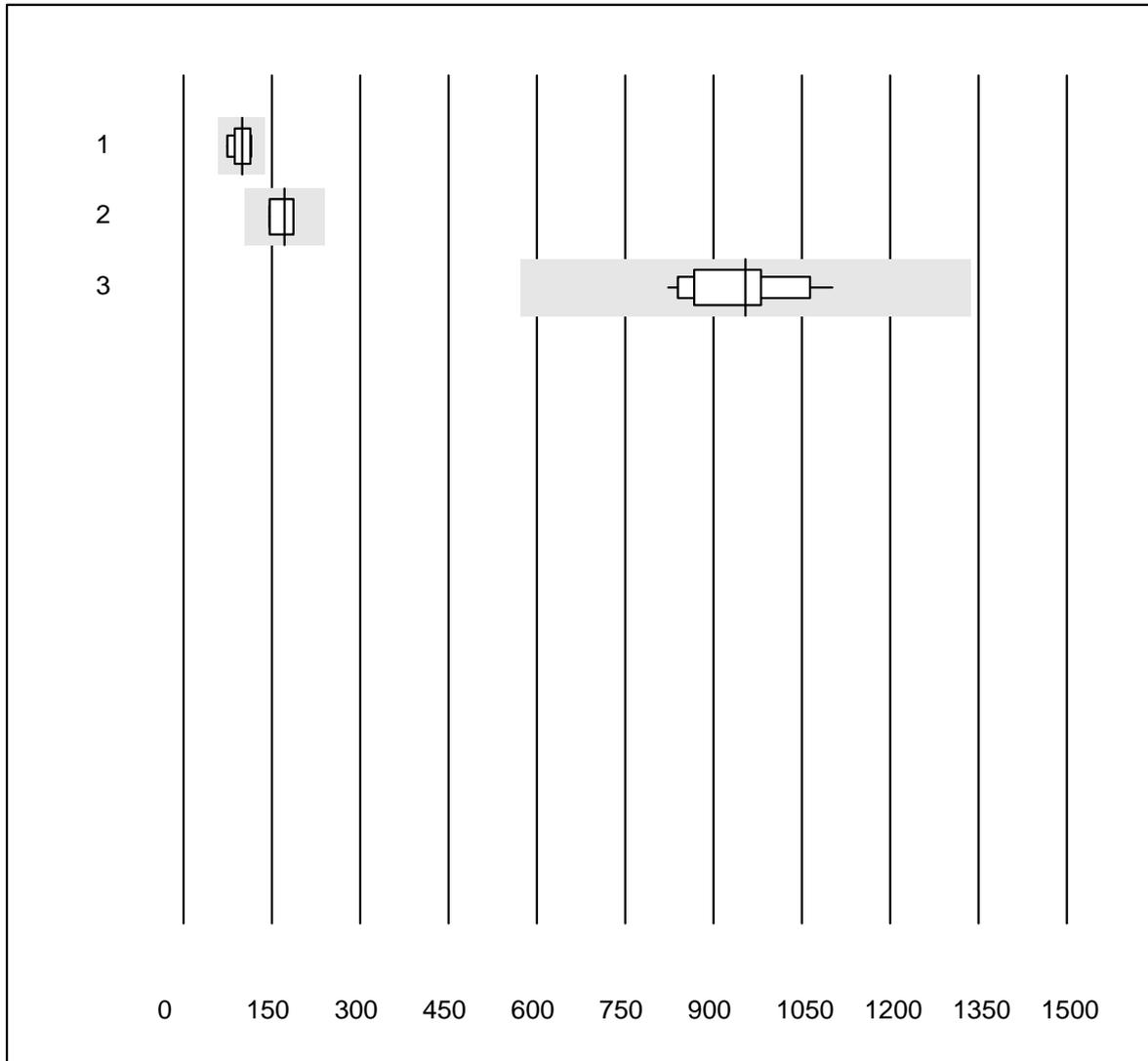
MQ tolerance : 40 %   Folate in Erythrocytes (nmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Alinity	7	100.0	0.0	0.0	99	14.3	e*
2	Architect	4	100.0	0.0	0.0	172	12.4	e*
3	Cobas	13	92.3	0.0	7.7	954	9.2	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Gallensäure
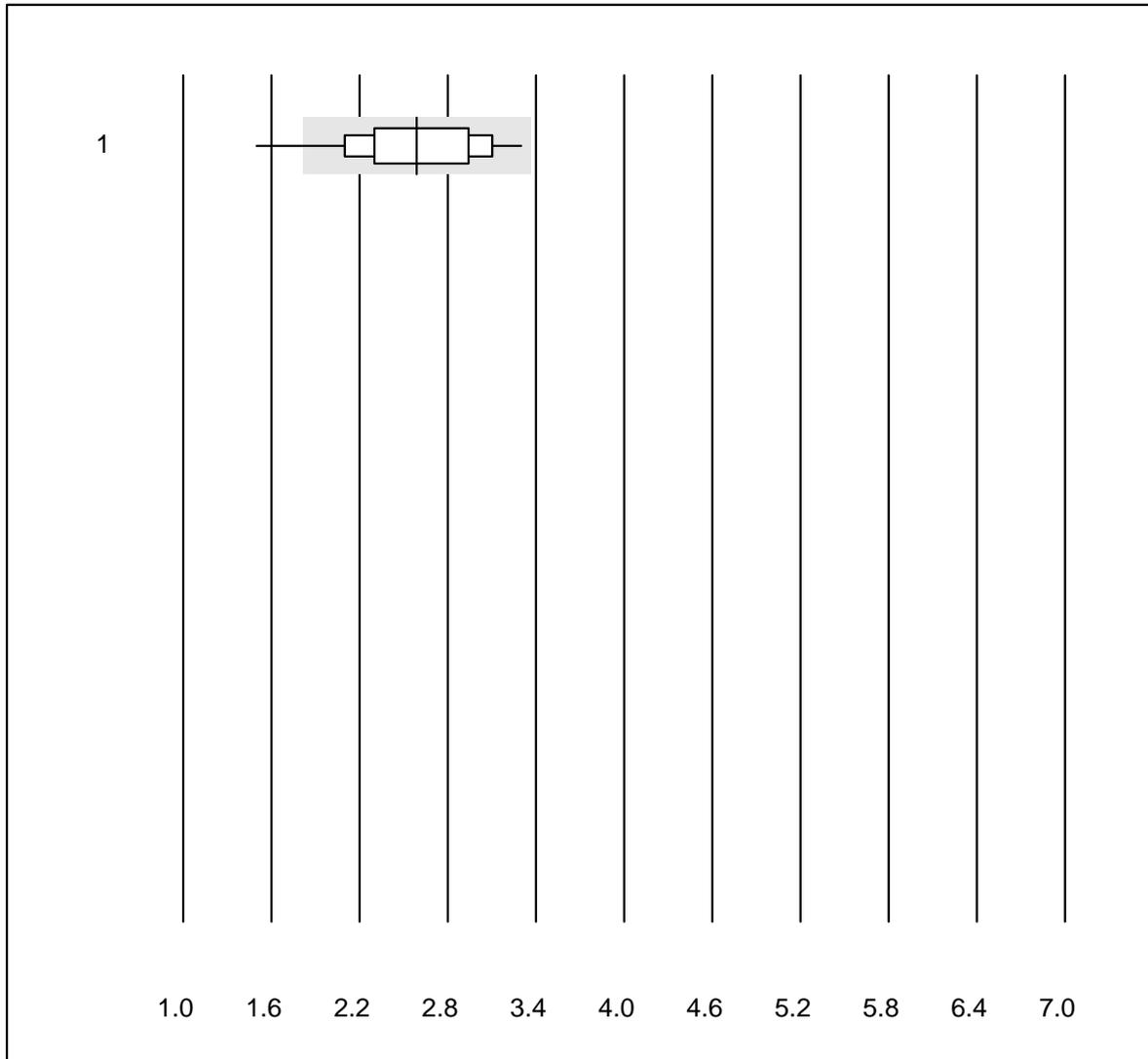
MQ tolerance : 30 %
(< 5.0: +/- 1.5 µmol/l)

Gallensäure (µmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	22	91.0	4.5	4.5	2.6	17.4	a

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

BNP
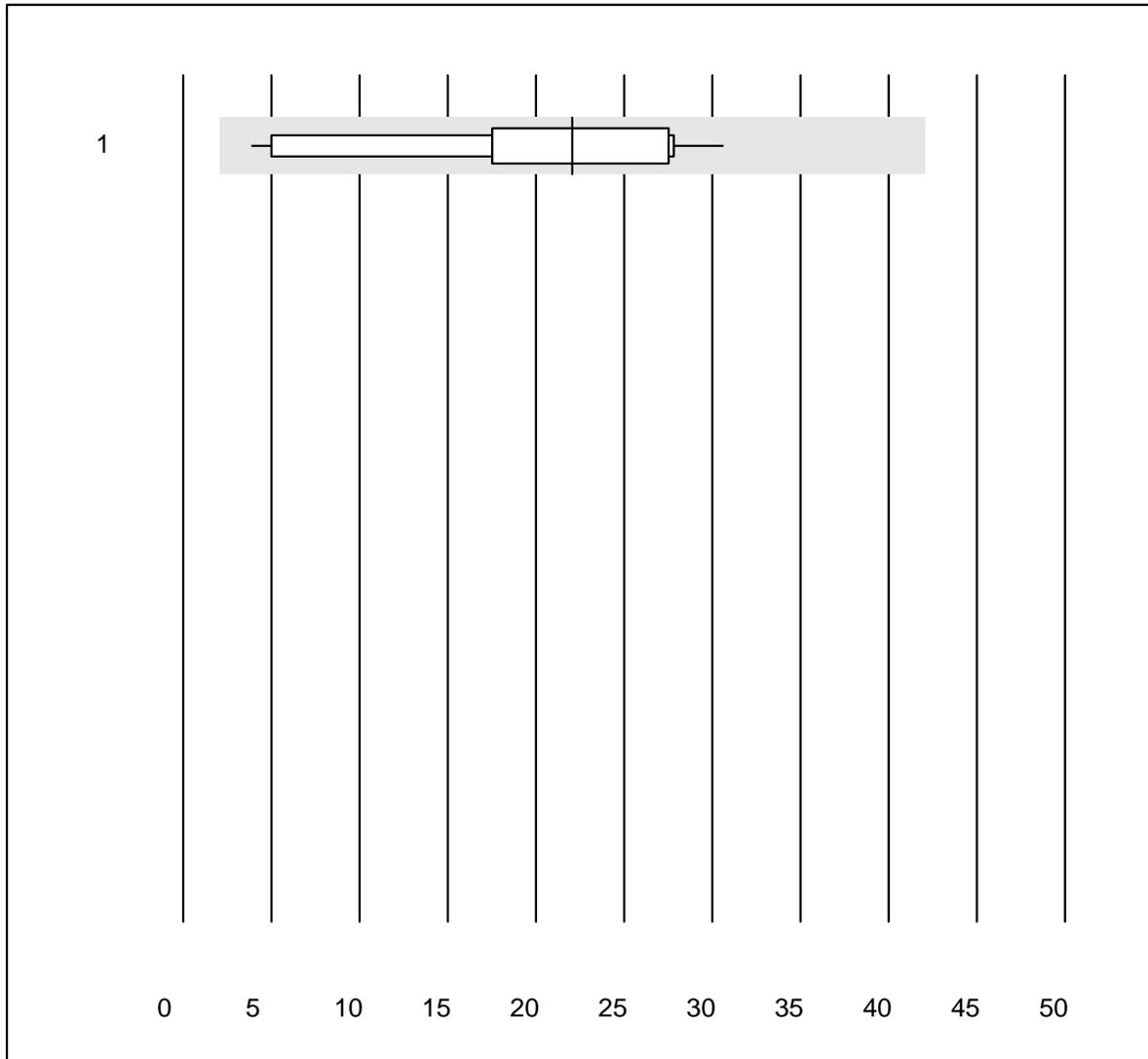
BNP (ng/l)

QUALAB tolerance : 27 %
(< 75.0: +/- 20.0 ng/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Triage	15	93.3	0.0	6.7	22.1	38.5	e*

Troponin Triage
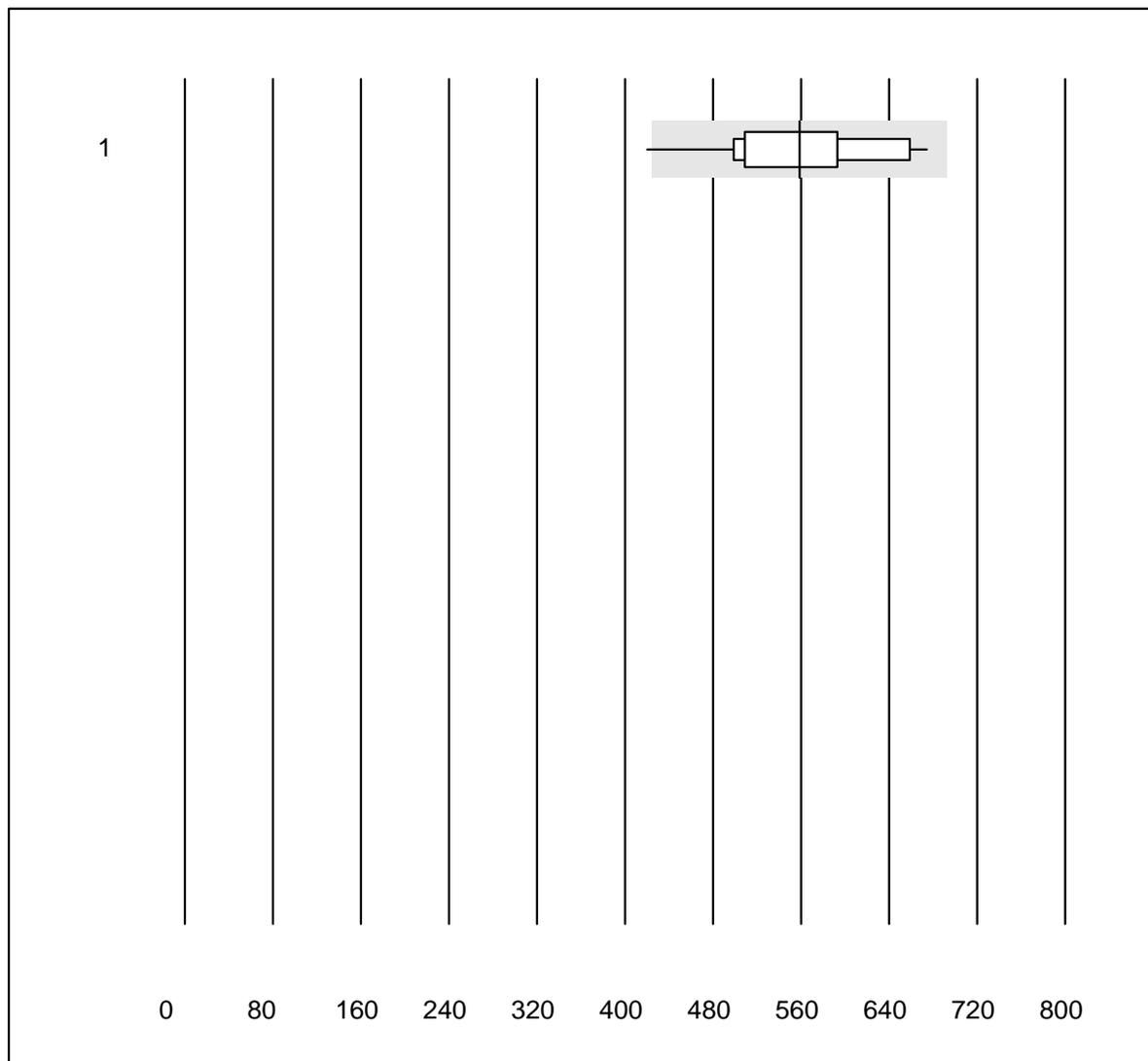
QUALAB tolerance : 24 %

Troponin Triage (ng/l)

| No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Triage high sensitiv	29	96.6	3.4	0.0	558.41	11.2	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

NT-pro BNP
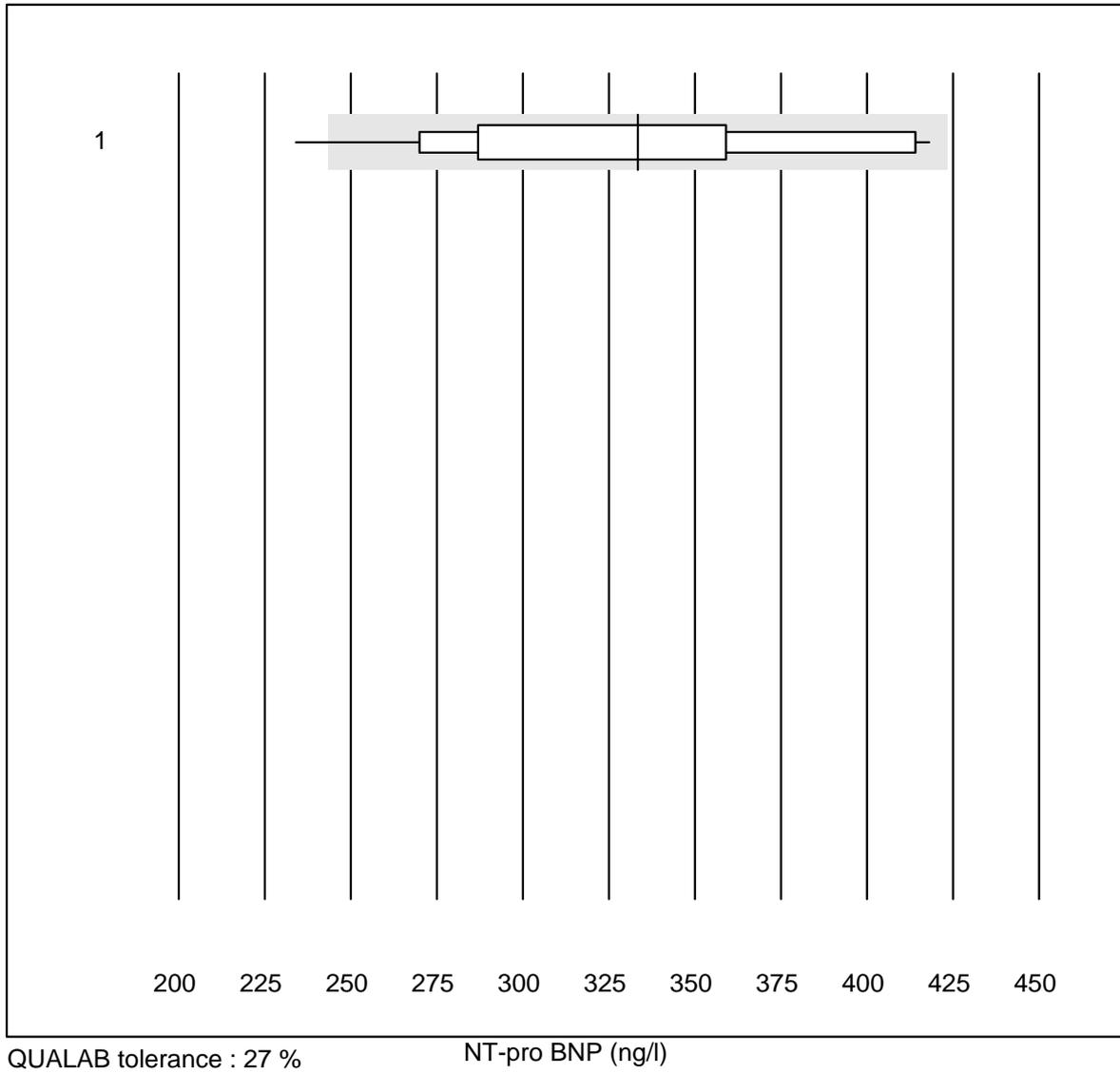
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Triage	16	93.7	6.3	0.0	334	16.0	e*

QUALAB tolerance : 27 %

NT-pro BNP (ng/l)
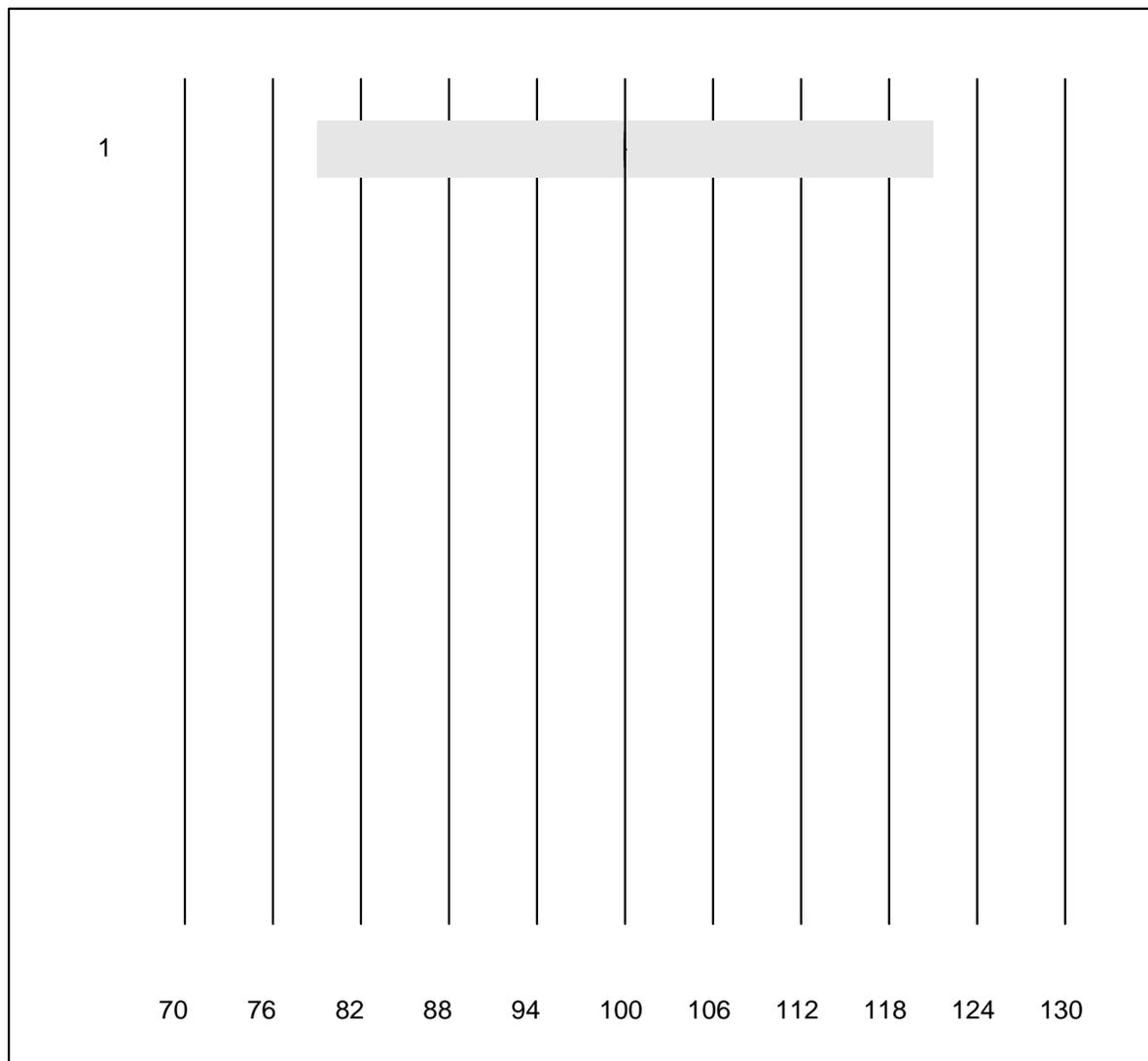
D-dimer Triage

QUALAB tolerance : 21 %   D-dimer Triage (ng/ml)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Triage	38	100.0	0.0	0.0	100.00	0.0	e

Vitamin D 25 (OH)
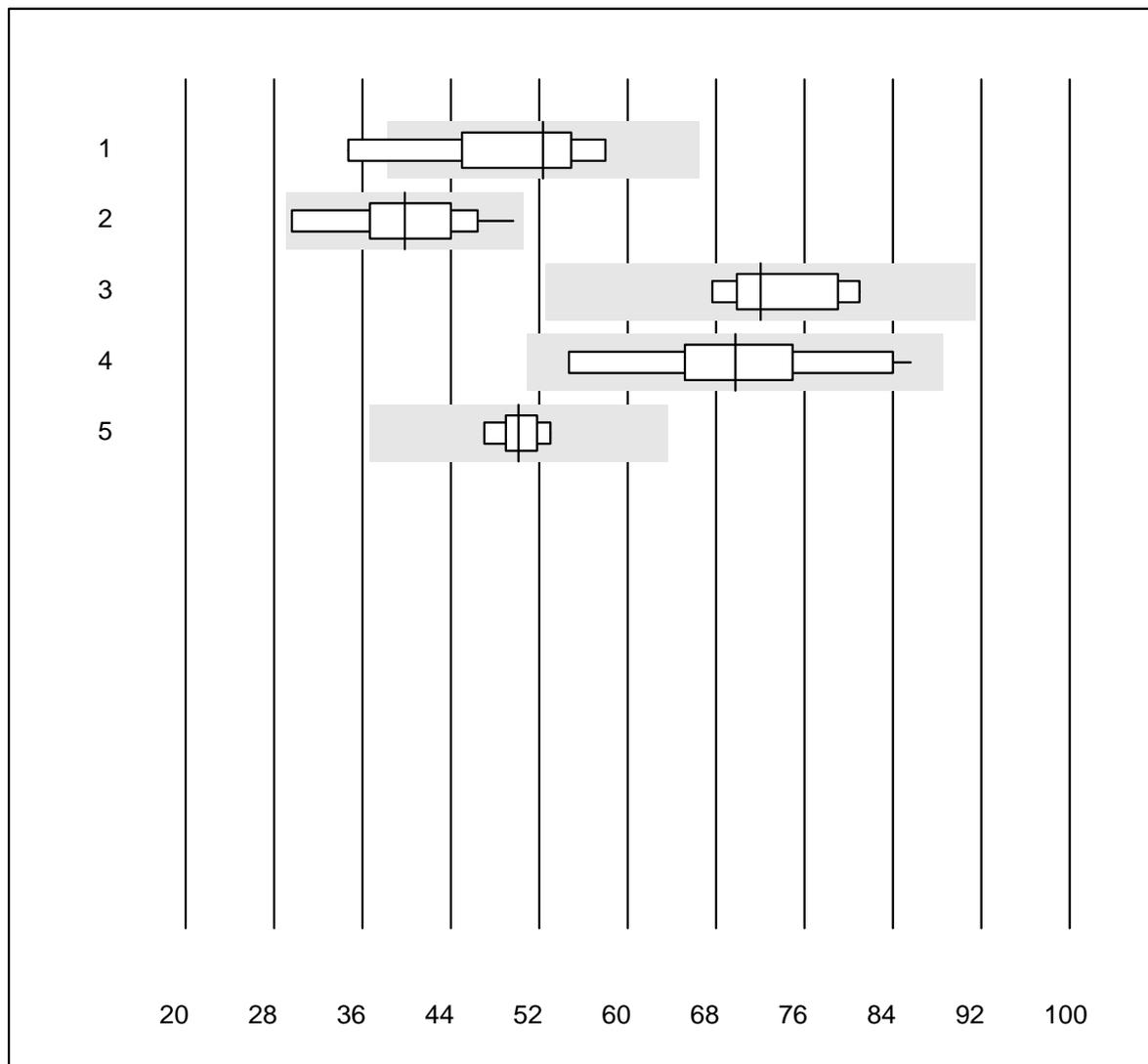
QUALAB tolerance : 27 %

Vitamin D 25 (OH) (nmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	LCMS	8	87.5	12.5	0.0	52.3	15.2	e*
2	Cobas	10	100.0	0.0	0.0	39.8	15.3	e*
3	VIDAS	6	100.0	0.0	0.0	72.0	7.2	e
4	Other methods	13	76.9	0.0	23.1	69.7	13.9	e*
5	Architect	9	100.0	0.0	0.0	50.1	3.9	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

AMH

| | 12.0 | 13.1 | 14.2 | 15.3 | 16.4 | 17.5 | 18.6 | 19.7 | 20.8 | 21.9 | 23.0 |
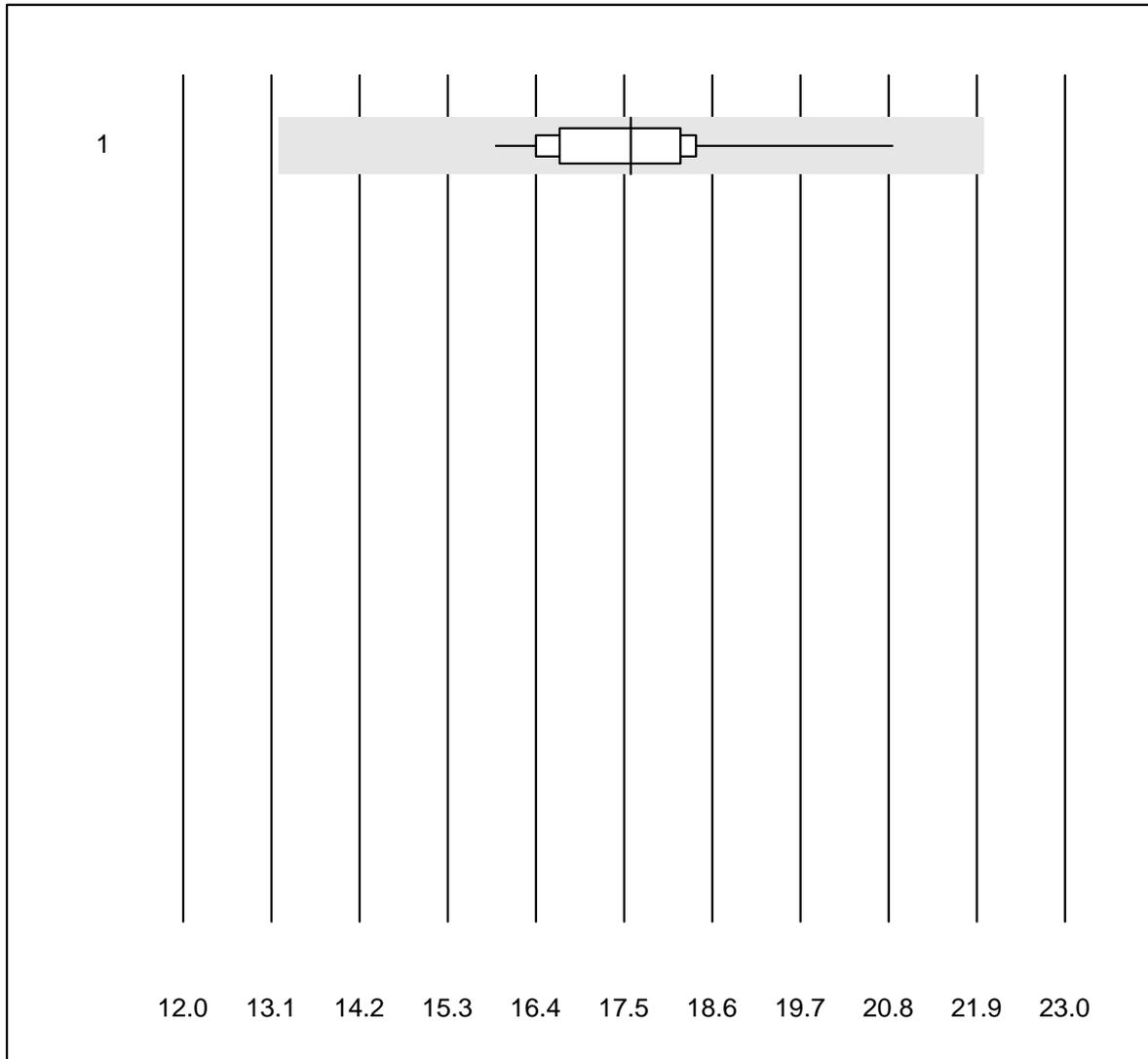
MQ tolerance : 25 %

AMH (pmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	11	100.0	0.0	0.0	17.6	7.5	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Calcitonin
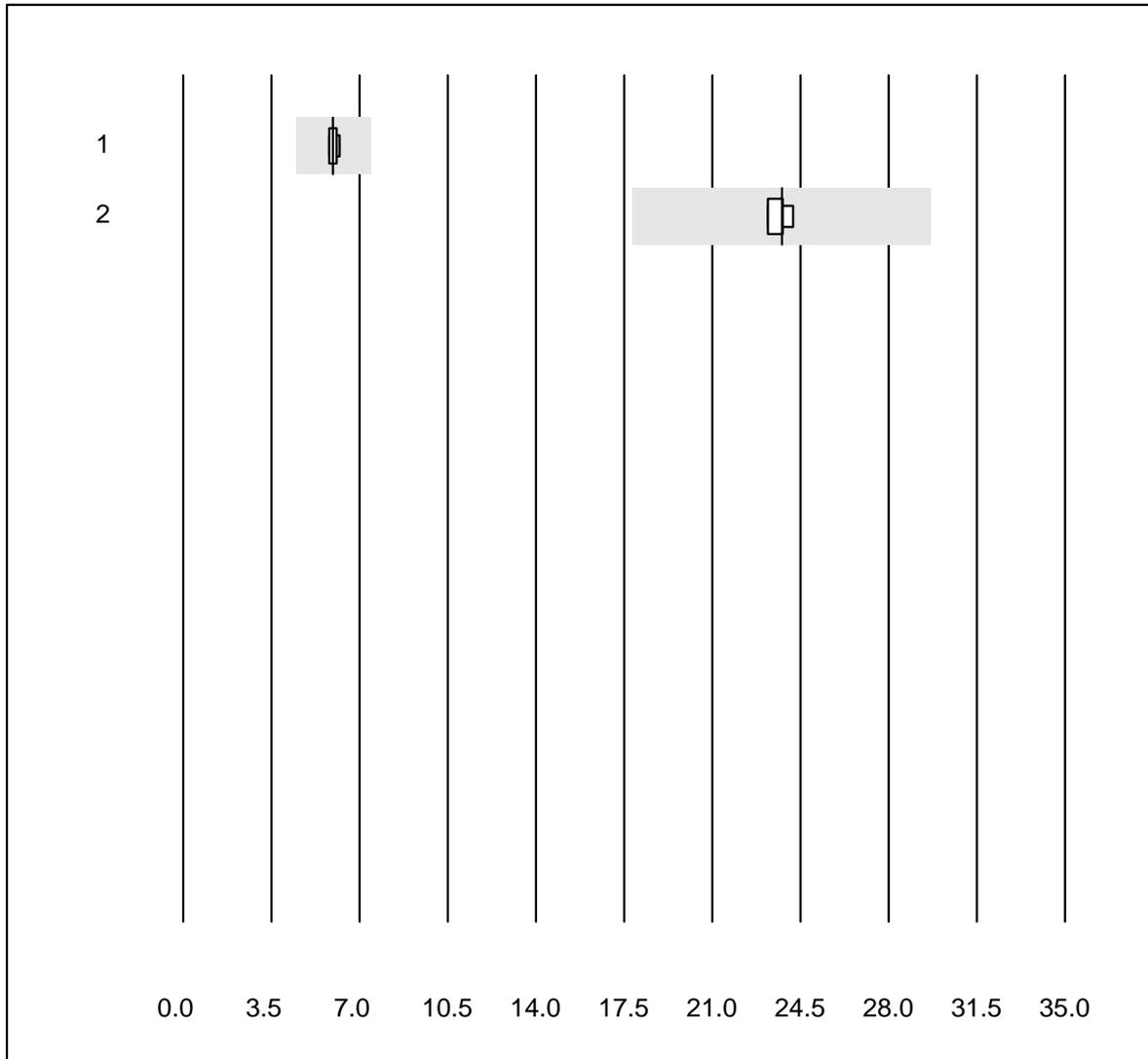
MQ tolerance : 25 %

Calcitonin (pmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Liaison	5	100.0	0.0	0.0	6.0	3.1	e
2	Other methods	4	100.0	0.0	0.0	23.8	1.7	e

Anti Thyreoglobulin
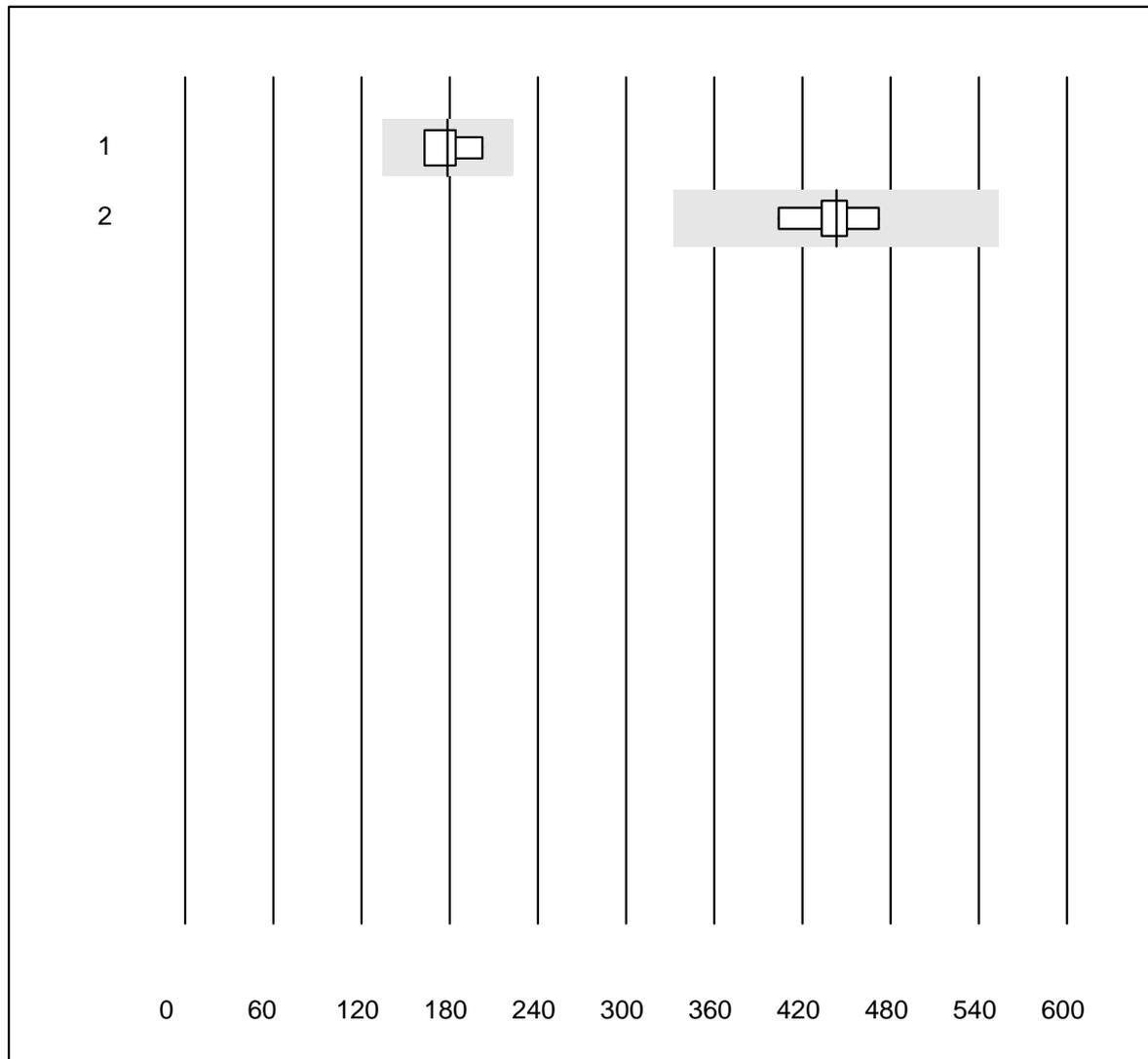
MQ tolerance : 25 %

Anti Thyreoglobulin (IU/ml)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Phadia	4	100.0	0.0	0.0	179	9.3	e*
2	Cobas	7	100.0	0.0	0.0	443	4.6	e

9 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Anti TPO
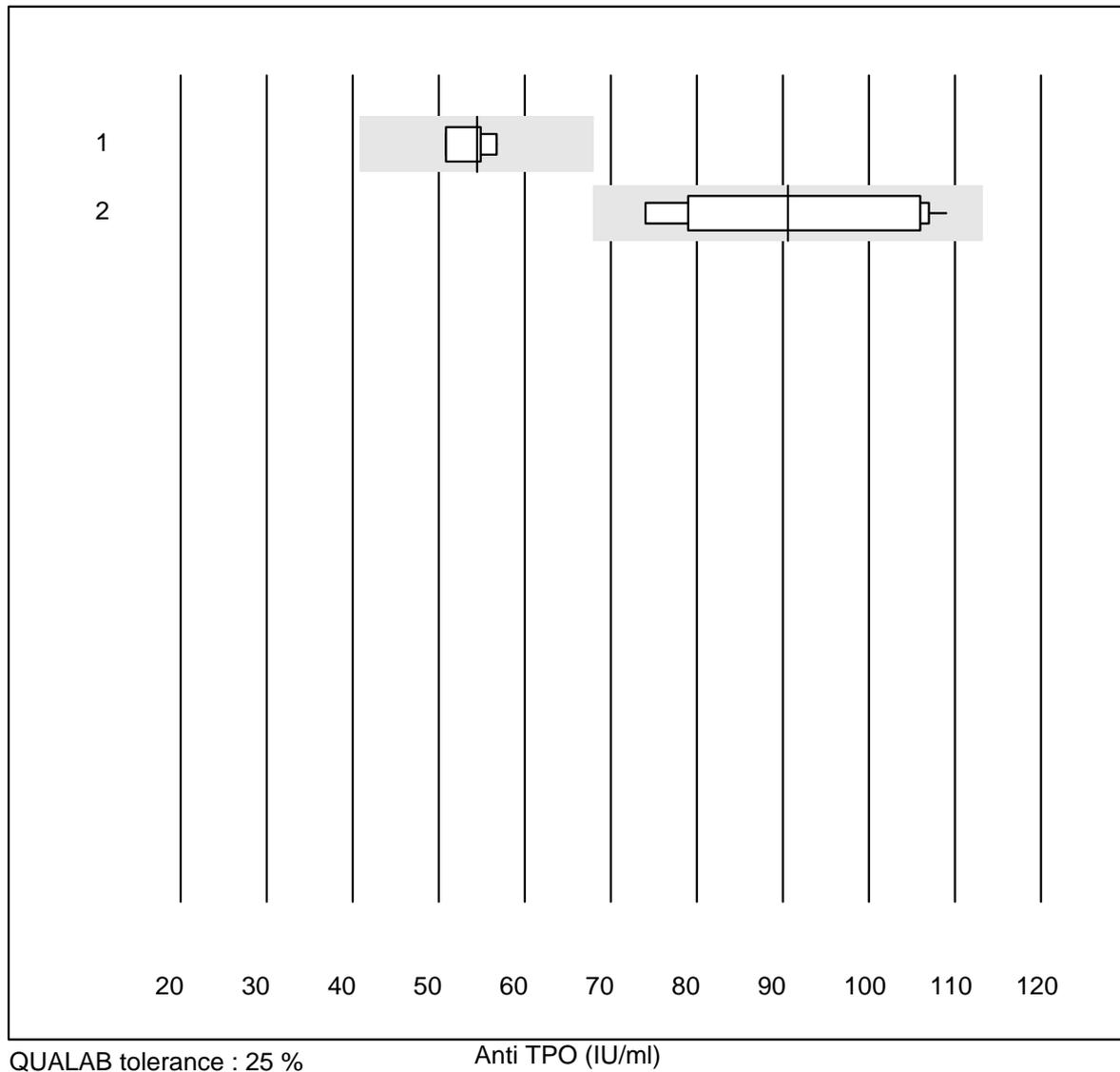
QUALAB tolerance : 25 %   Anti TPO (IU/ml)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Alinity	4	100.0	0.0	0.0	54	4.6	e
2	Cobas	10	100.0	0.0	0.0	91	14.3	e*

7 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

K47 Schilddrüsenautoantikörper

TRAK

| | 1.40 | 1.55 | 1.70 | 1.85 | 2.00 | 2.15 | 2.30 | 2.45 | 2.60 | 2.75 | 2.90 |
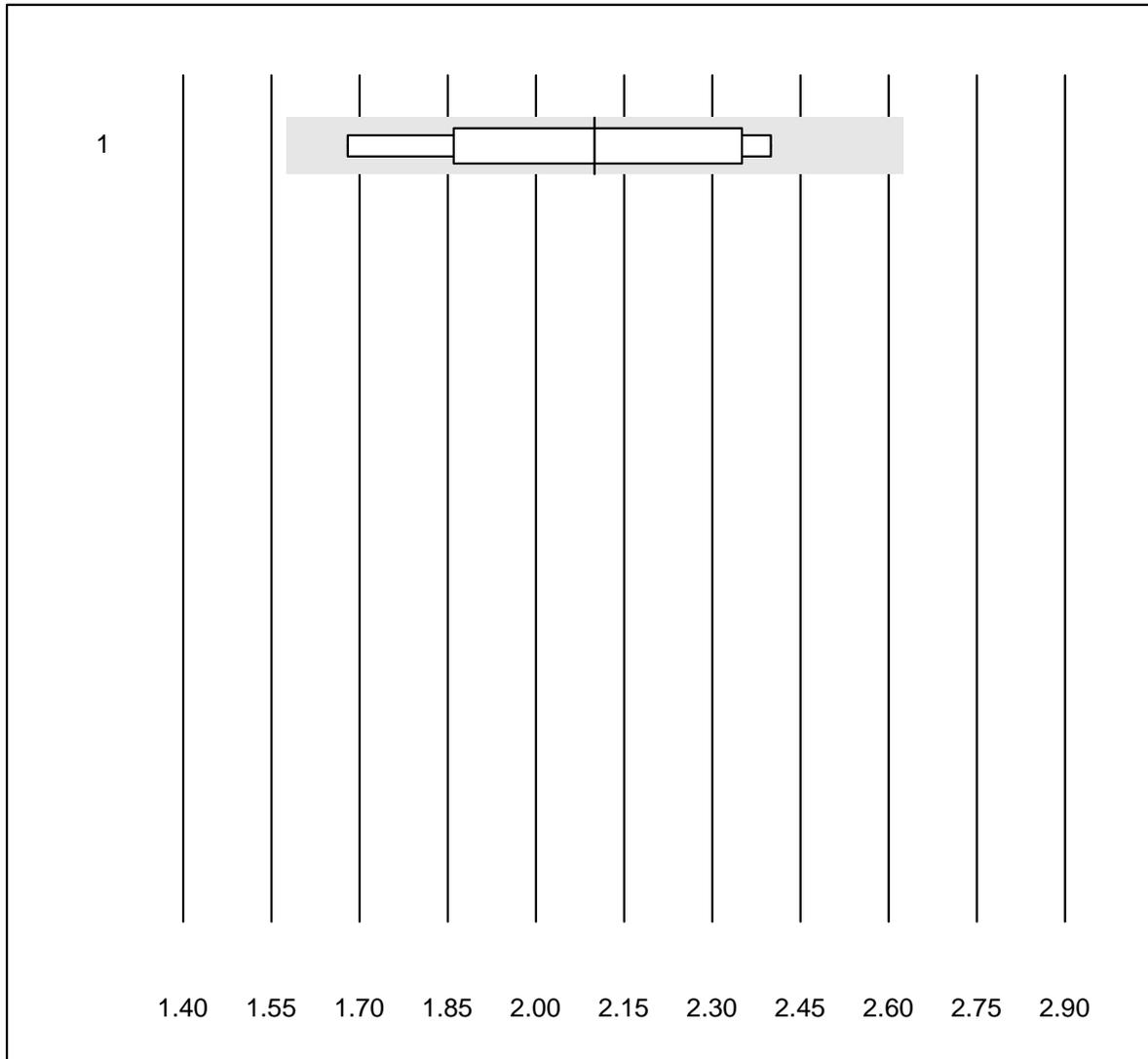
TRAK (IU/l)

MQ tolerance : 25 %

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	7	100.0	0.0	0.0	2.10	12.9	e*

8 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

# Creatinine WB
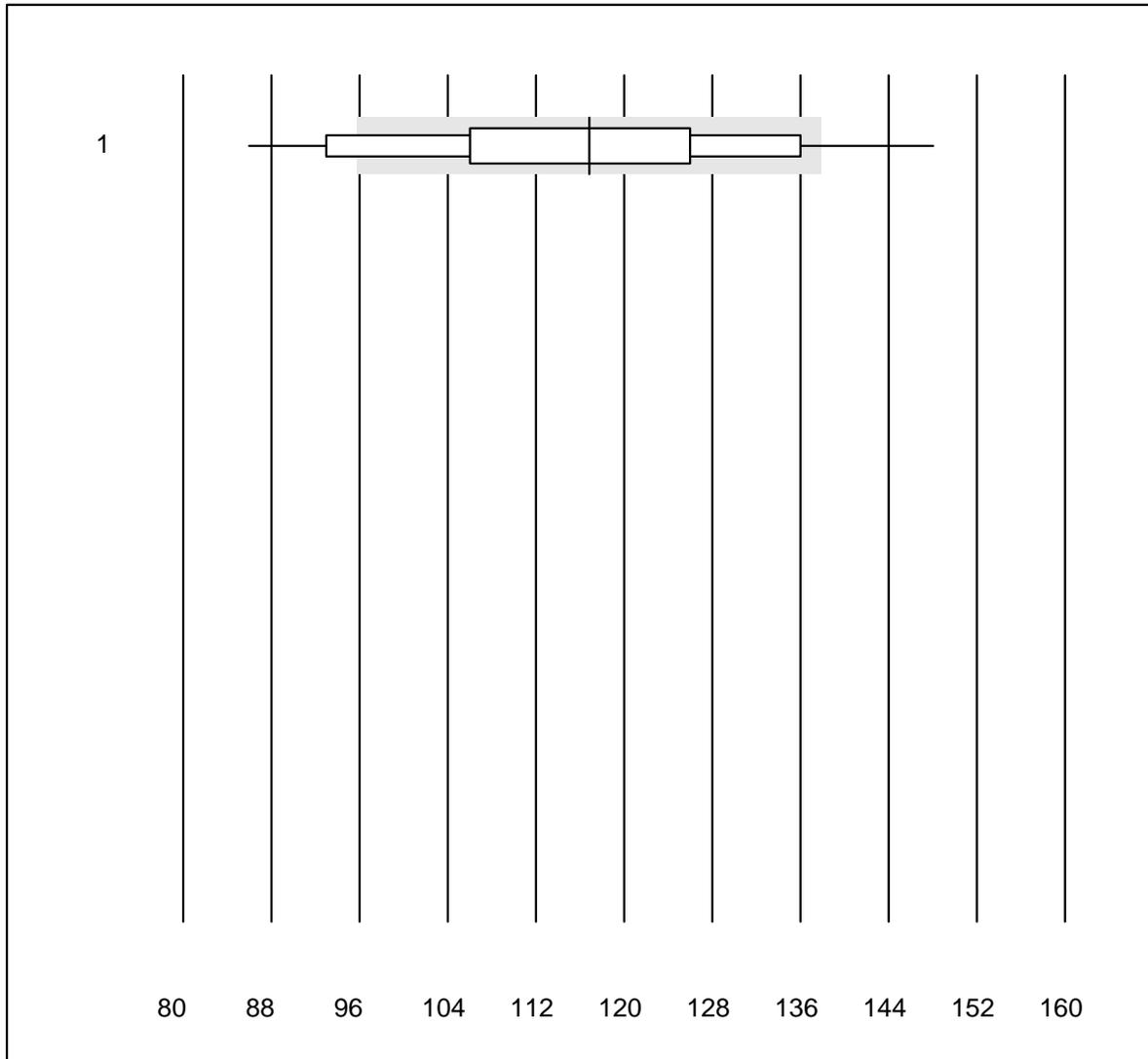
QUALAB tolerance : 18 %

Creatinine WB (µmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Statsensor i / Nova	54	72.2	18.5	9.3	117	13.1	e

IL6
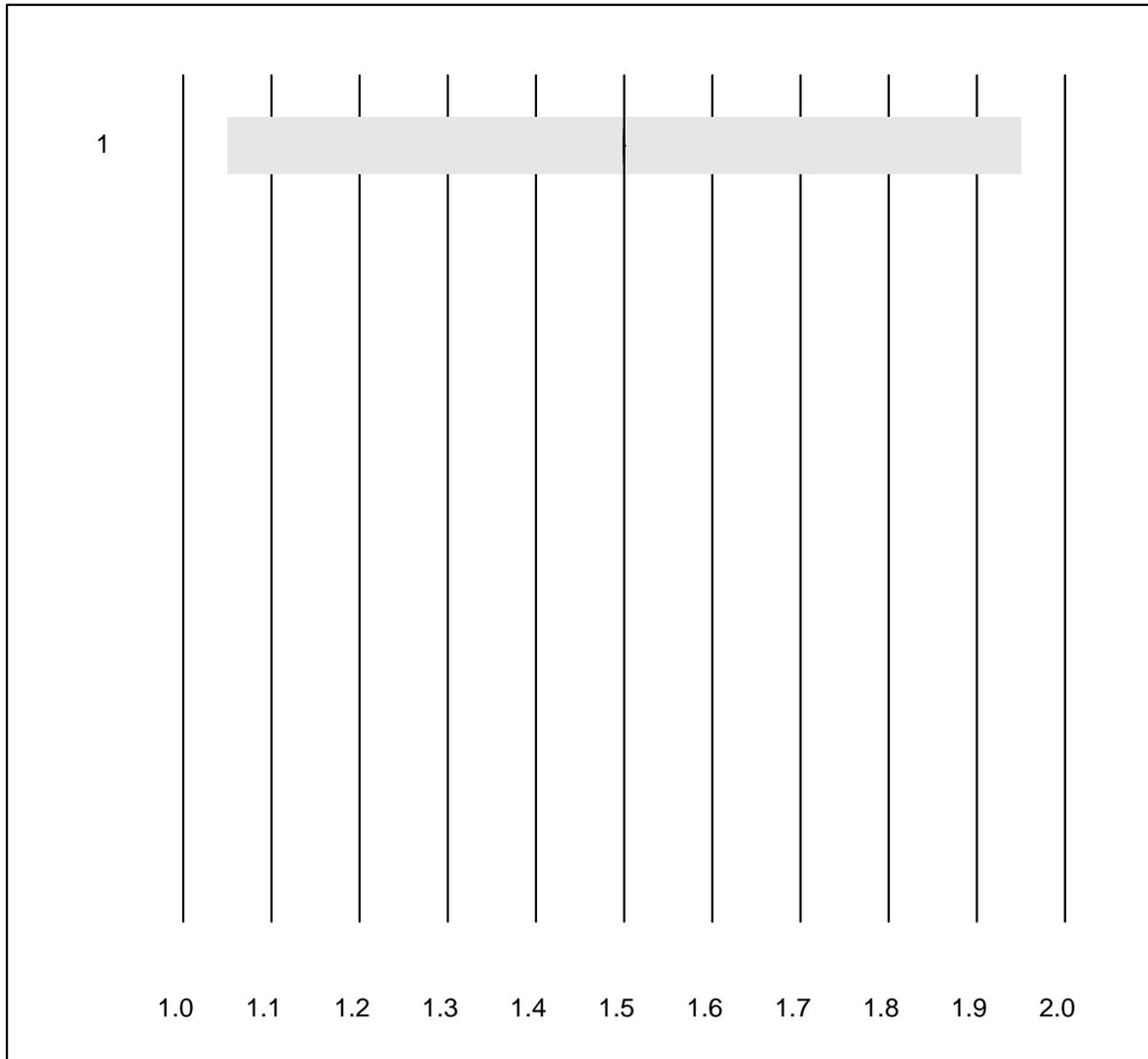
MQ tolerance : 30 %

IL6 (ng/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas	4	100.0	0.0	0.0	1.5	0.0	e

D-Dimere qn

1

0.55	0.59	0.63	0.67	0.71	0.75	0.79	0.83	0.87	0.91	0.95

QUALAB tolerance : 0 %　　　　　D-Dimere qn (mg/l)
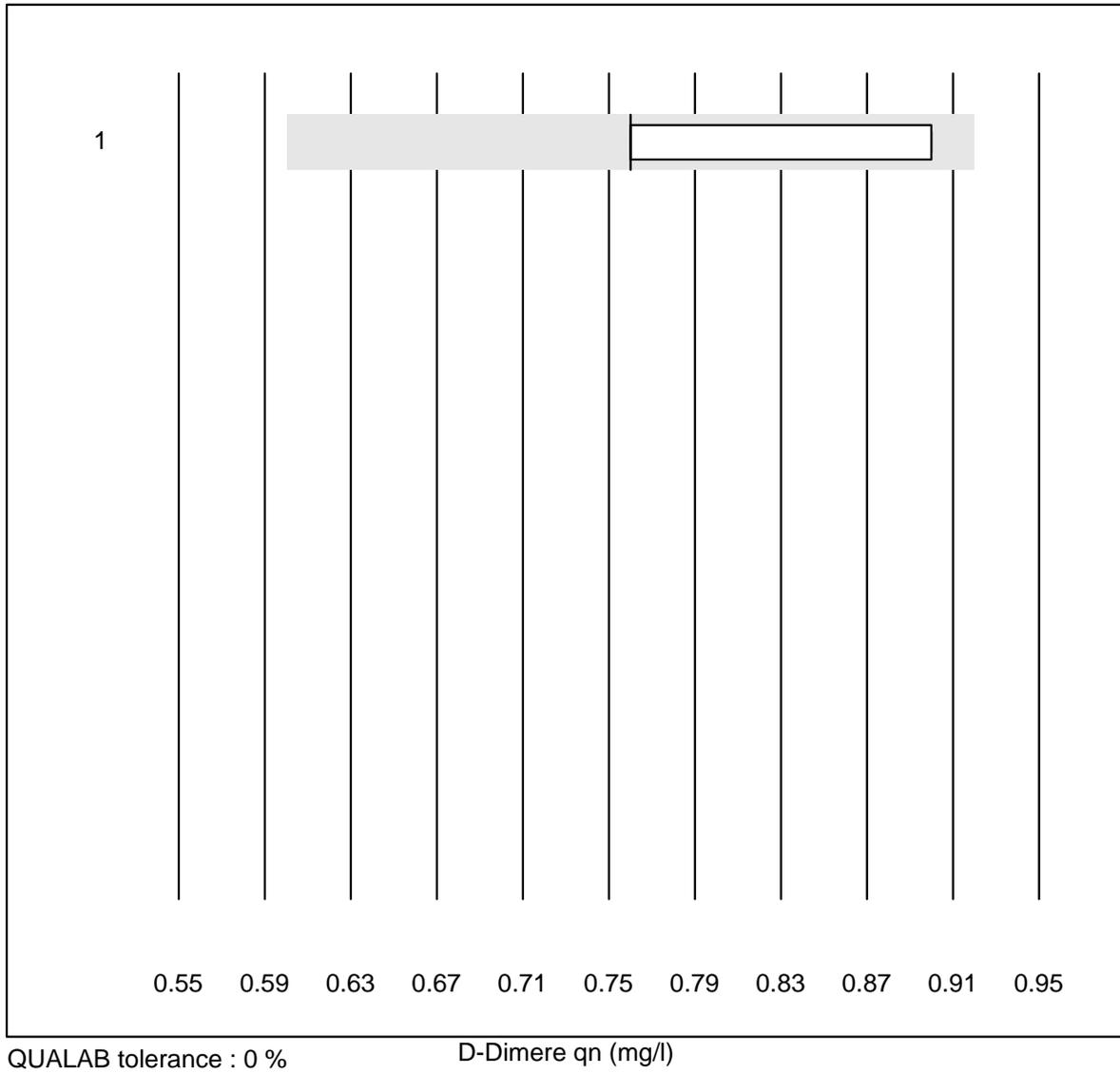
No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Exdia TRF	5	60.0	0.0	40.0	0.76	8.8	a

Troponin I qn
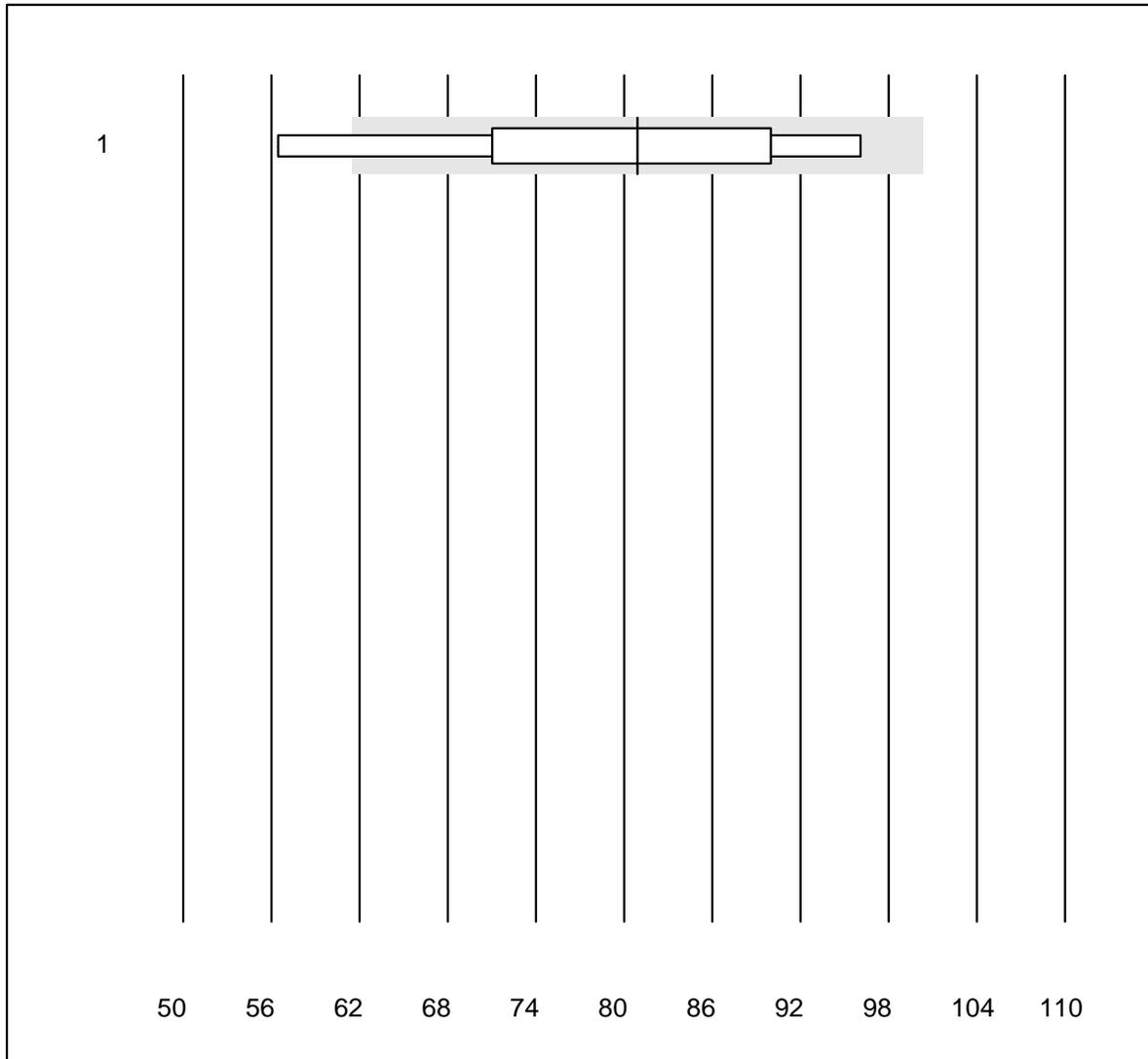
QUALAB tolerance : 0 %

Troponin I qn (ng/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Exdia TRF	6	66.6	16.7	16.7	80.89	20.7	a

proBNP

| | 700 | 770 | 840 | 910 | 980 | 1050 | 1120 | 1190 | 1260 | 1330 | 1400 |
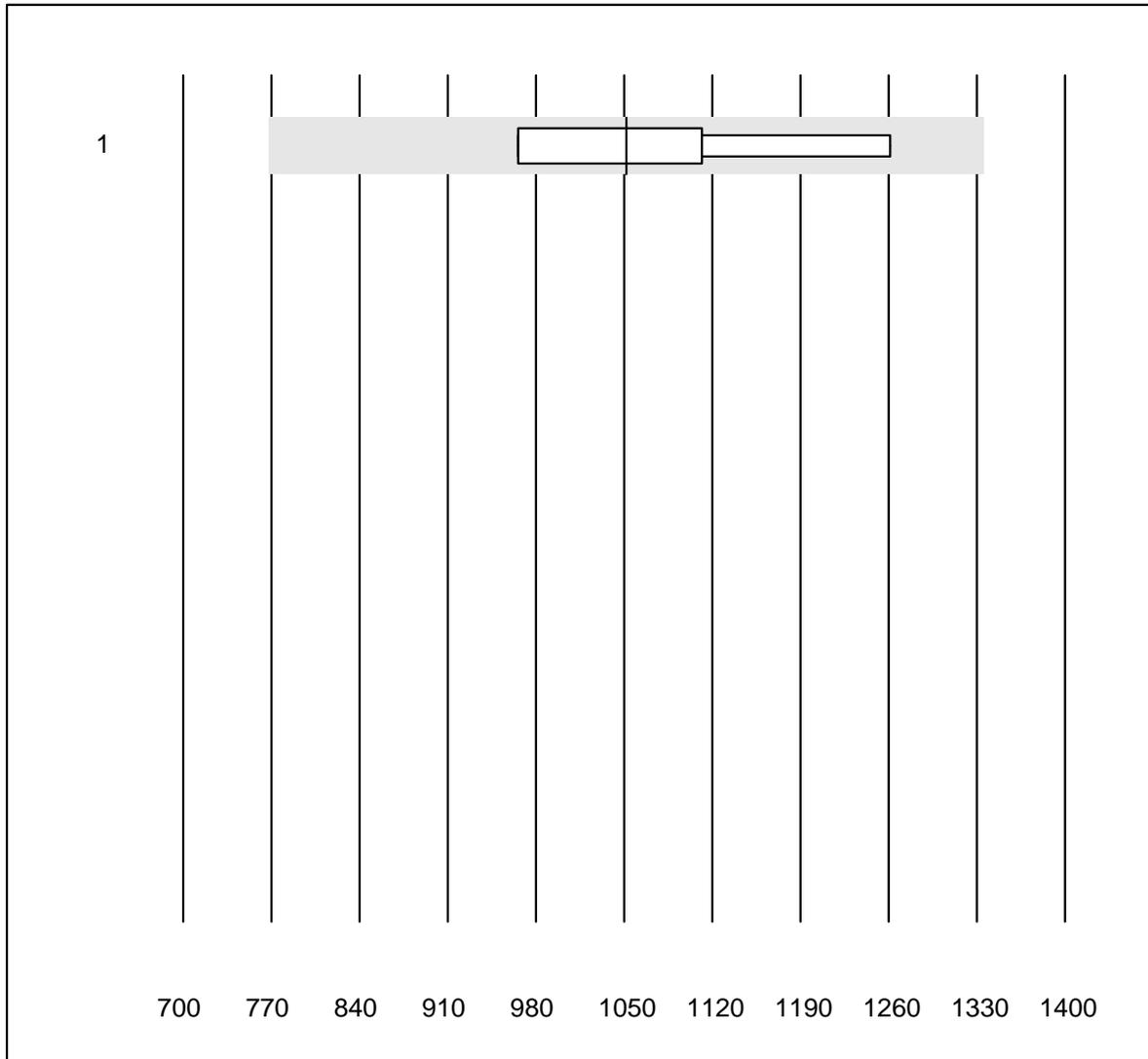
QUALAB tolerance : 0 %   proBNP (ng/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Exdia TRF	4	100.0	0.0	0.0	1052.0	12.4	a

Calcium-Urine

1.80   1.85   1.90   1.95   2.00   2.05   2.10   2.15   2.20   2.25   2.30
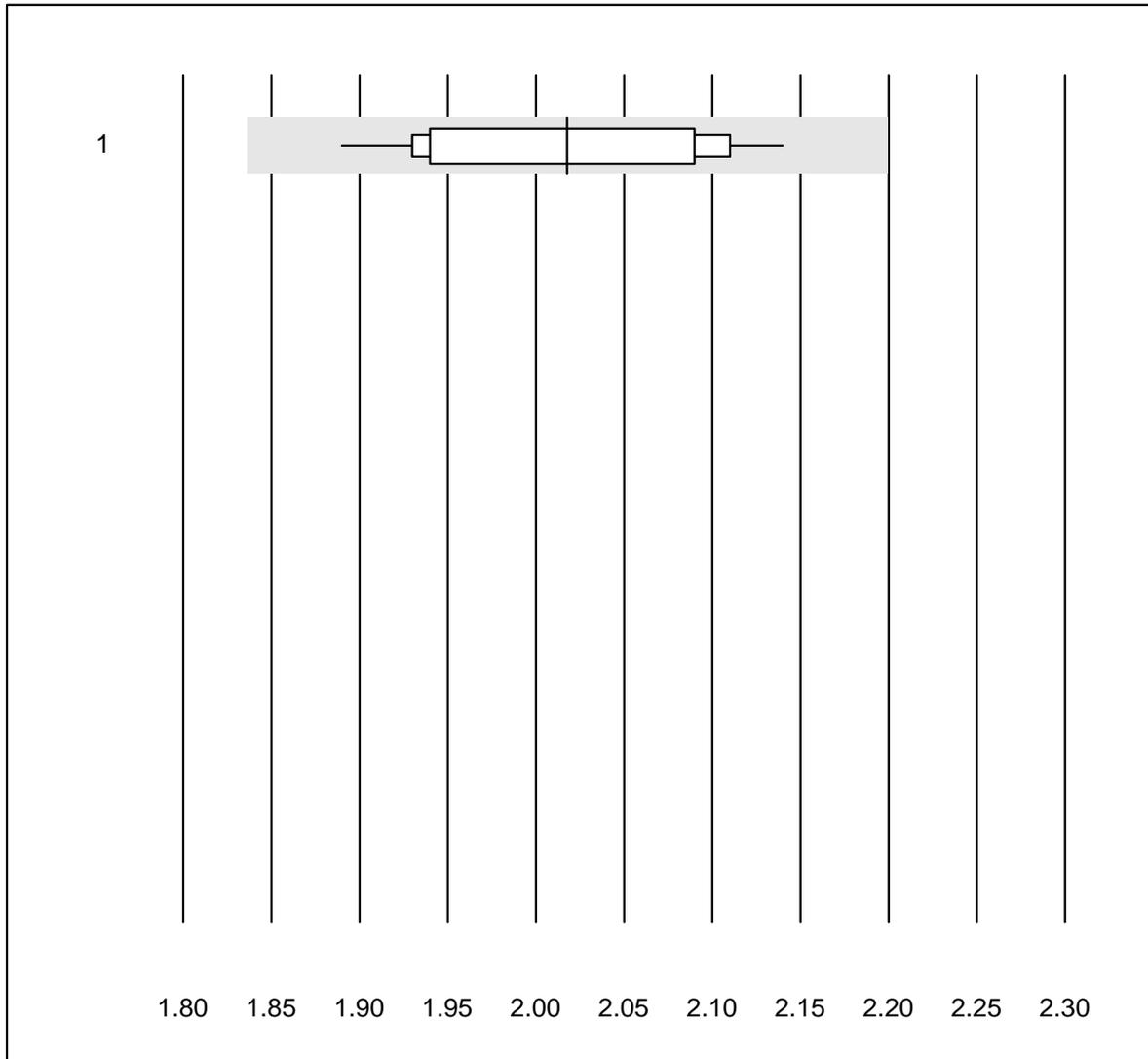
MQ tolerance : 9 %

Calcium-Urine (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	22	100.0	0.0	0.0	2.02	3.8	e

Chloride-Urine
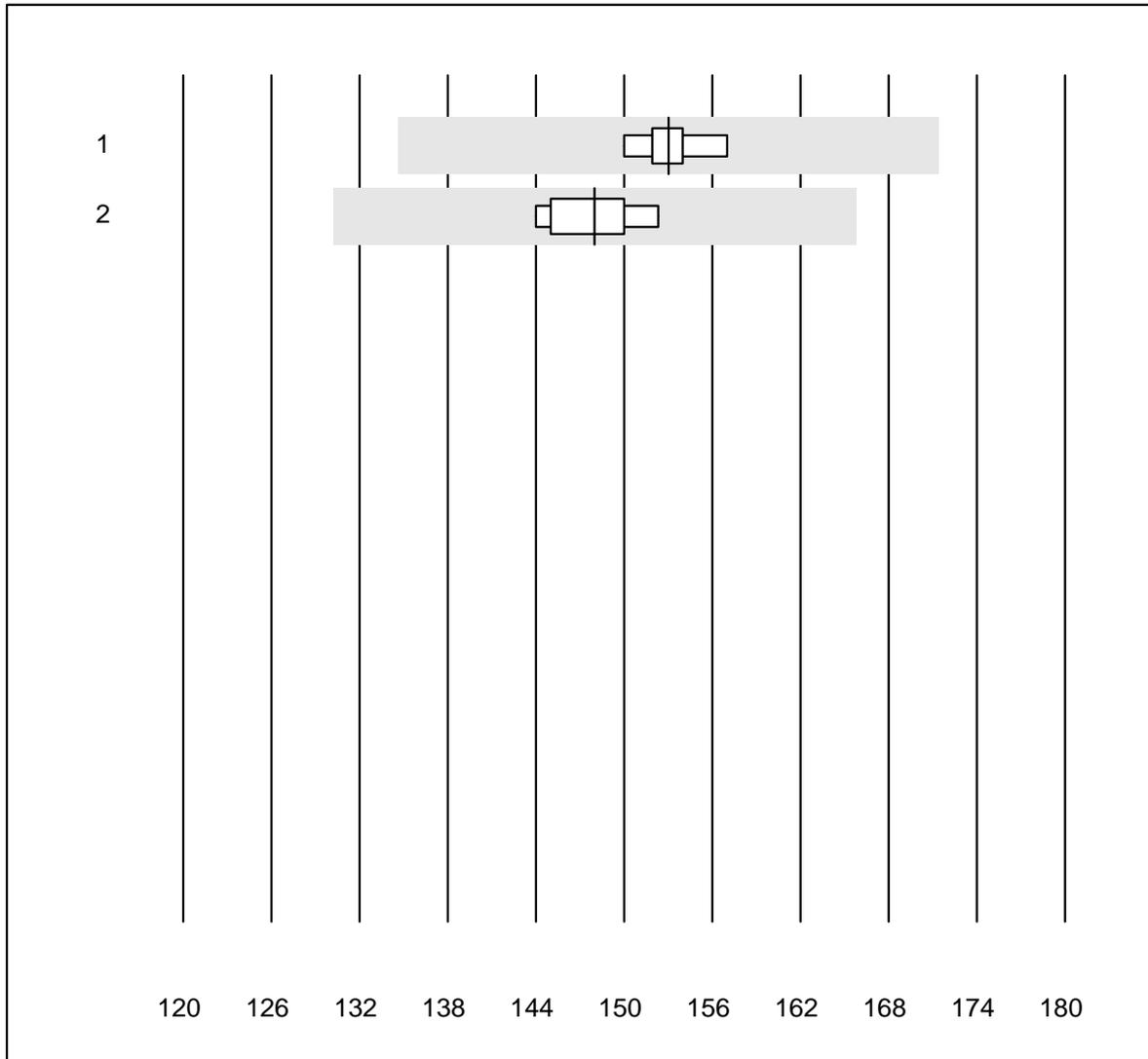
MQ tolerance : 12 % Chloride-Urine (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	7	100.0	0.0	0.0	153	1.4	e
2	Cobas	9	100.0	0.0	0.0	148	2.2	e

3 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Glucose-Urine
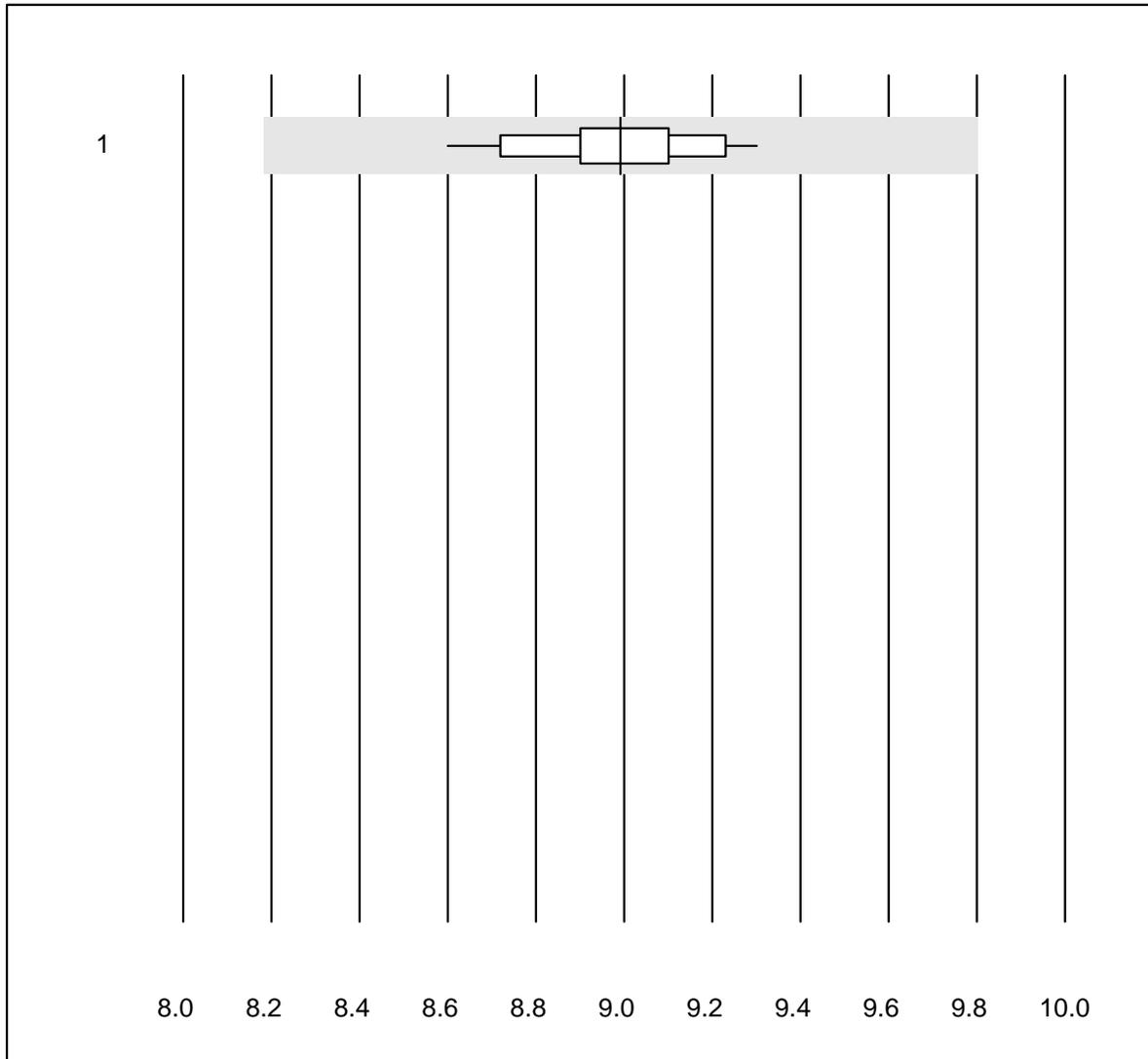
QUALAB tolerance : 9 %   Glucose-Urine (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	17	100.0	0.0	0.0	9.0	1.9	e

Magnesium-Urine

1

| | 2.20 | 2.28 | 2.36 | 2.44 | 2.52 | 2.60 | 2.68 | 2.76 | 2.84 | 2.92 | 3.00 |
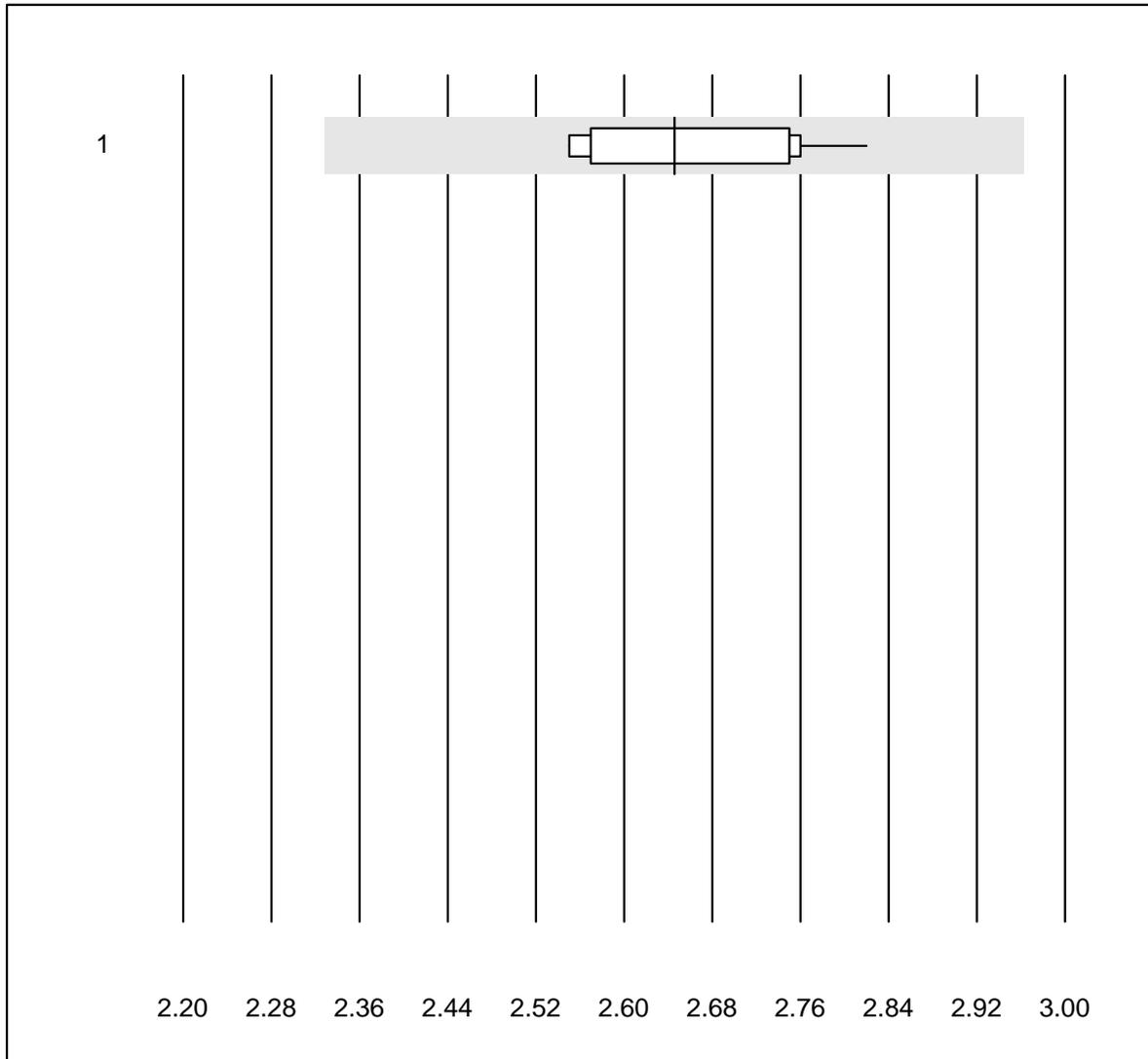
MQ tolerance : 12 %   Magnesium-Urine (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	11	100.0	0.0	0.0	2.65	3.7	e

2 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Osmolality-Urine
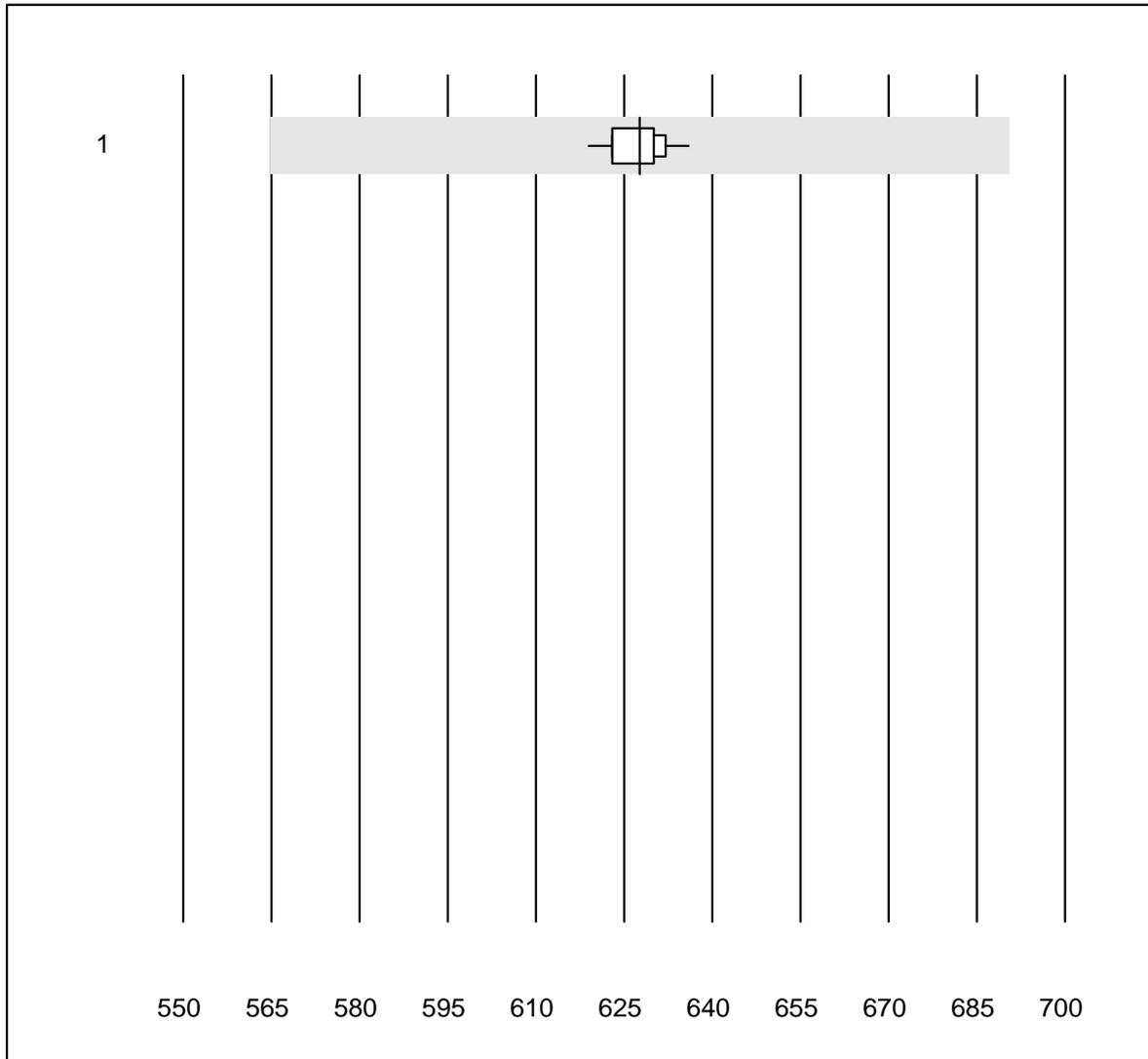
MQ tolerance : 10 %

Osmolality-Urine (mosm/kg)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cryoskopy	16	100.0	0.0	0.0	628	0.7	e

Phosphate-Urine

1

| 10.0 | 10.5 | 11.0 | 11.5 | 12.0 | 12.5 | 13.0 | 13.5 | 14.0 | 14.5 | 15.0 |
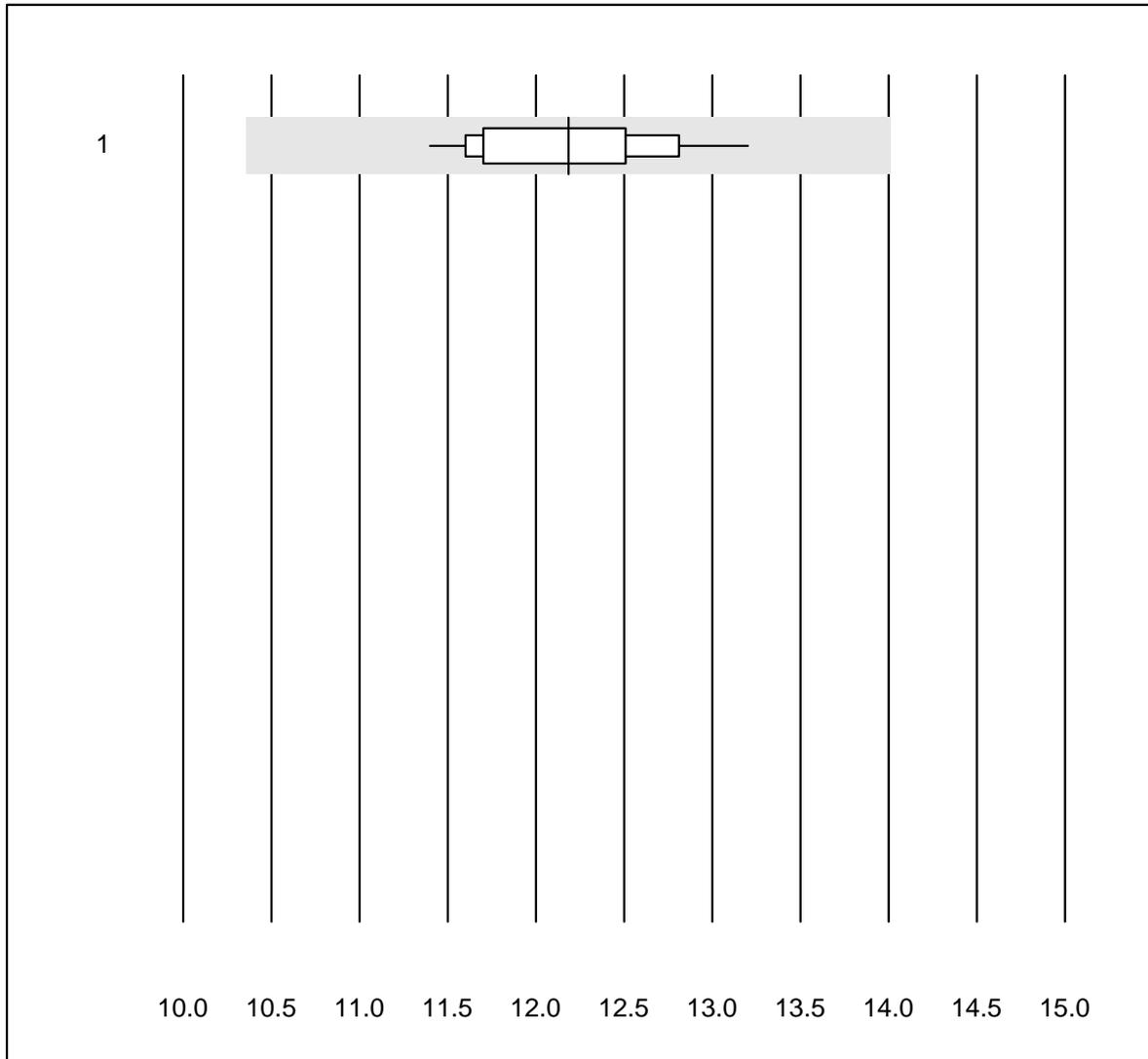
MQ tolerance : 15 %

Phosphate-Urine (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	19	100.0	0.0	0.0	12.2	4.1	e

Potassium-Urine
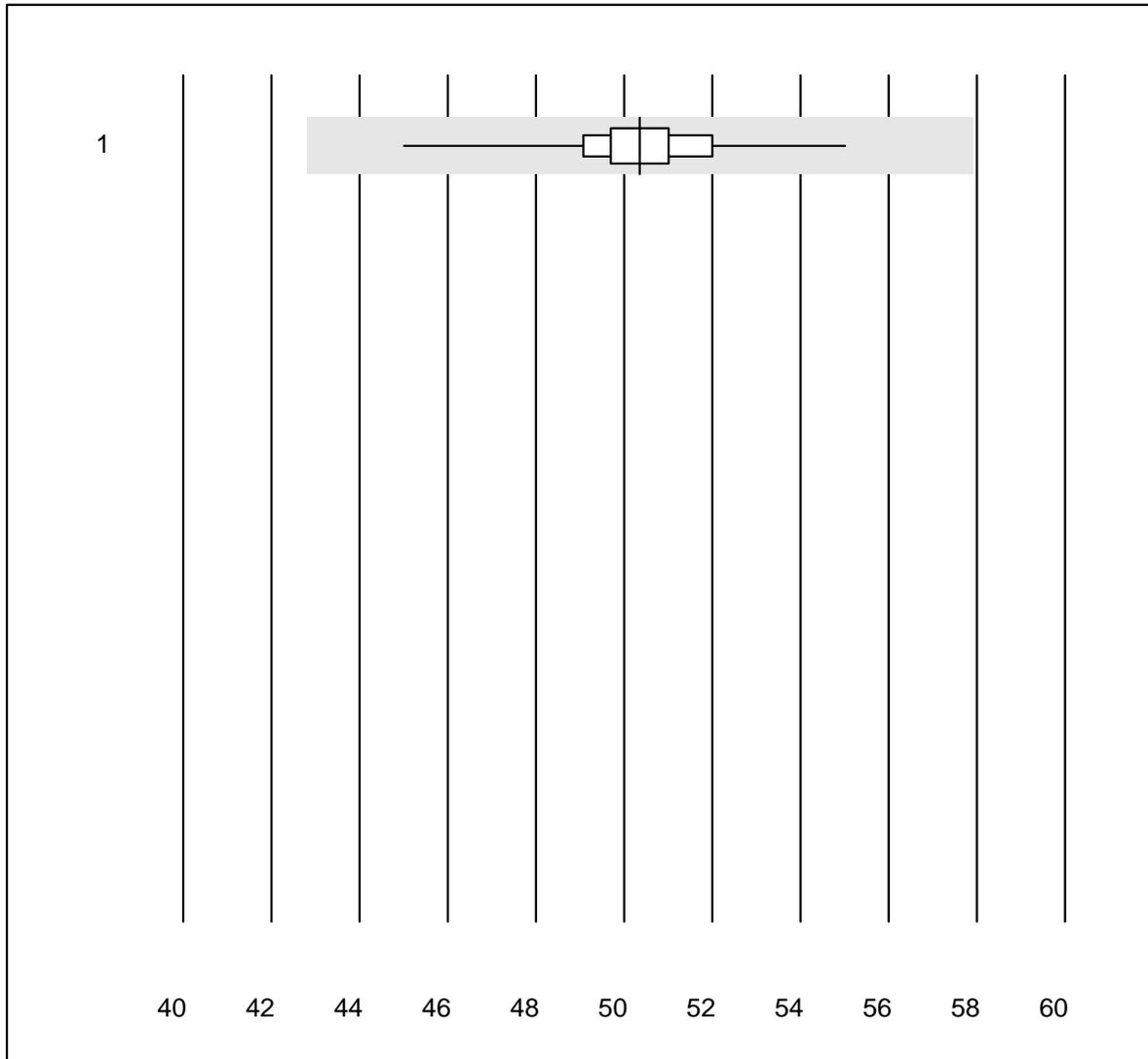
MQ tolerance : 15 %   Potassium-Urine (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	28	100.0	0.0	0.0	50	3.2	e

Protein-Urine

| | 250 | 285 | 320 | 355 | 390 | 425 | 460 | 495 | 530 | 565 | 600 |
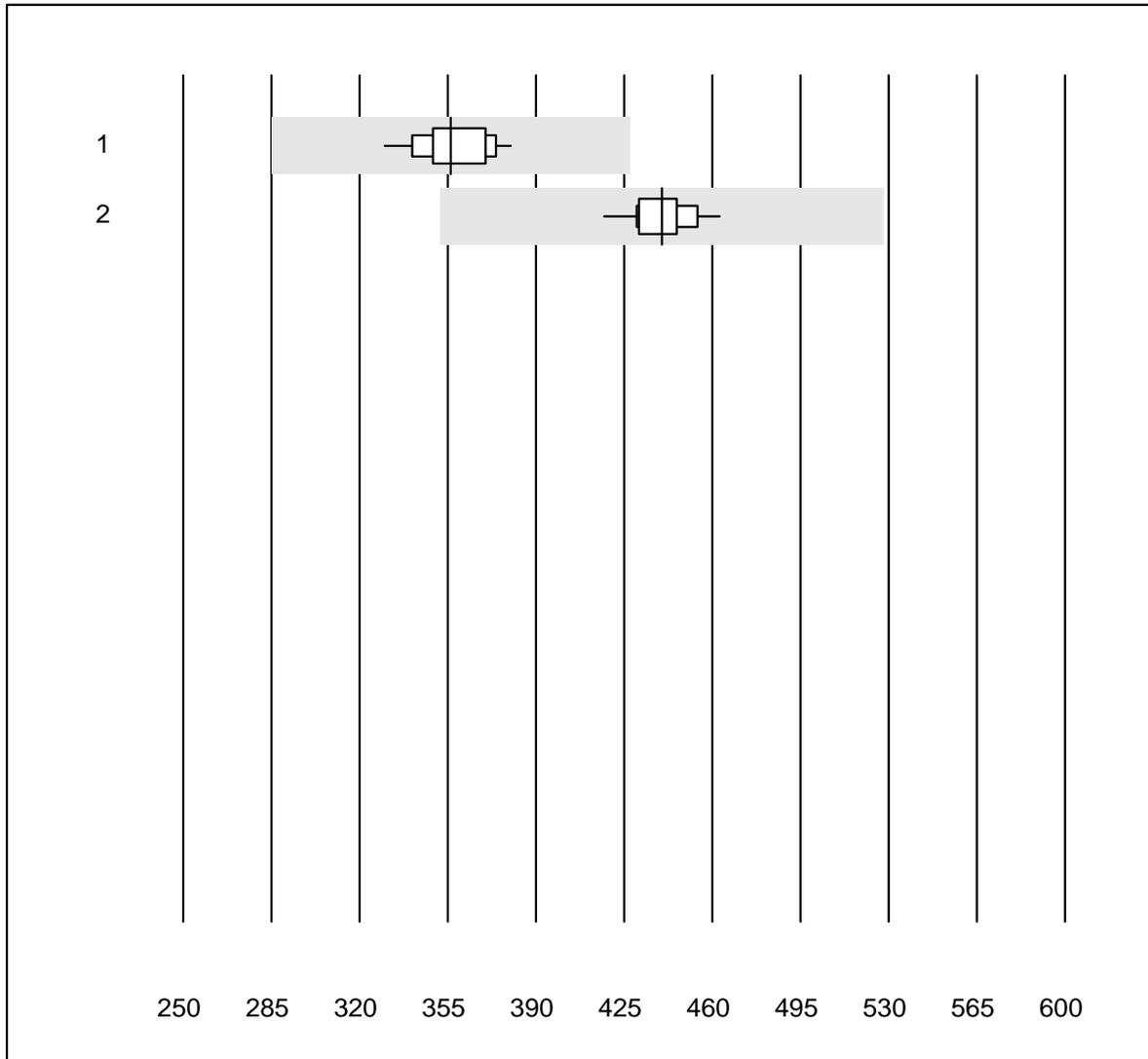
QUALAB tolerance : 20 %

Protein-Urine (mg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Cobas/Roche	15	100.0	0.0	0.0	356.1	3.7	e
2	Standard chemistry	12	100.0	0.0	0.0	440.1	2.7	e

5 additional results were submitted, but not published, because the Method groups were too small. (<4 results per group)

Sodium-Urine
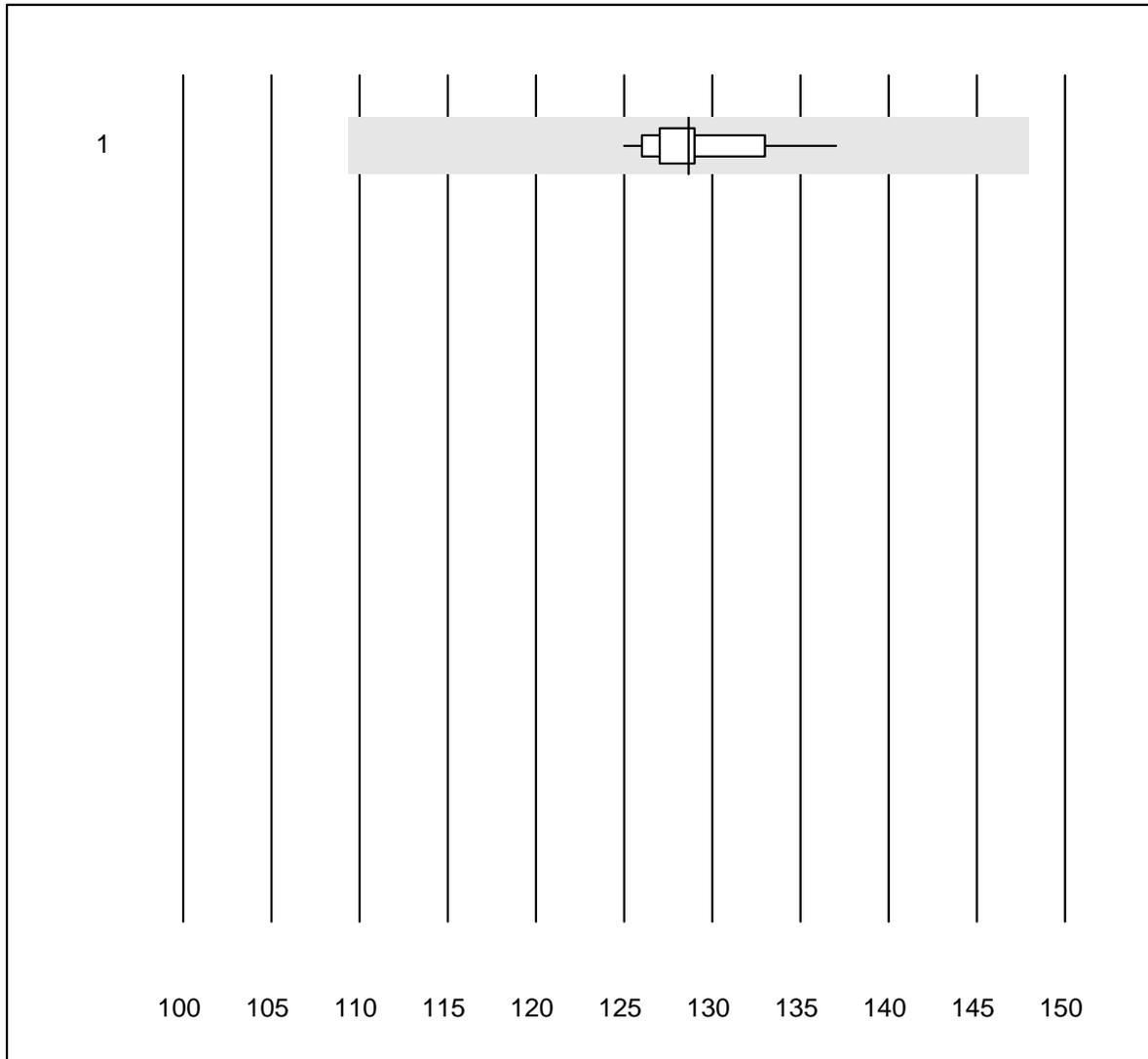
MQ tolerance : 15 %

Sodium-Urine (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	all Participants	28	100.0	0.0	0.0	129	2.3	e

Urea-Urine
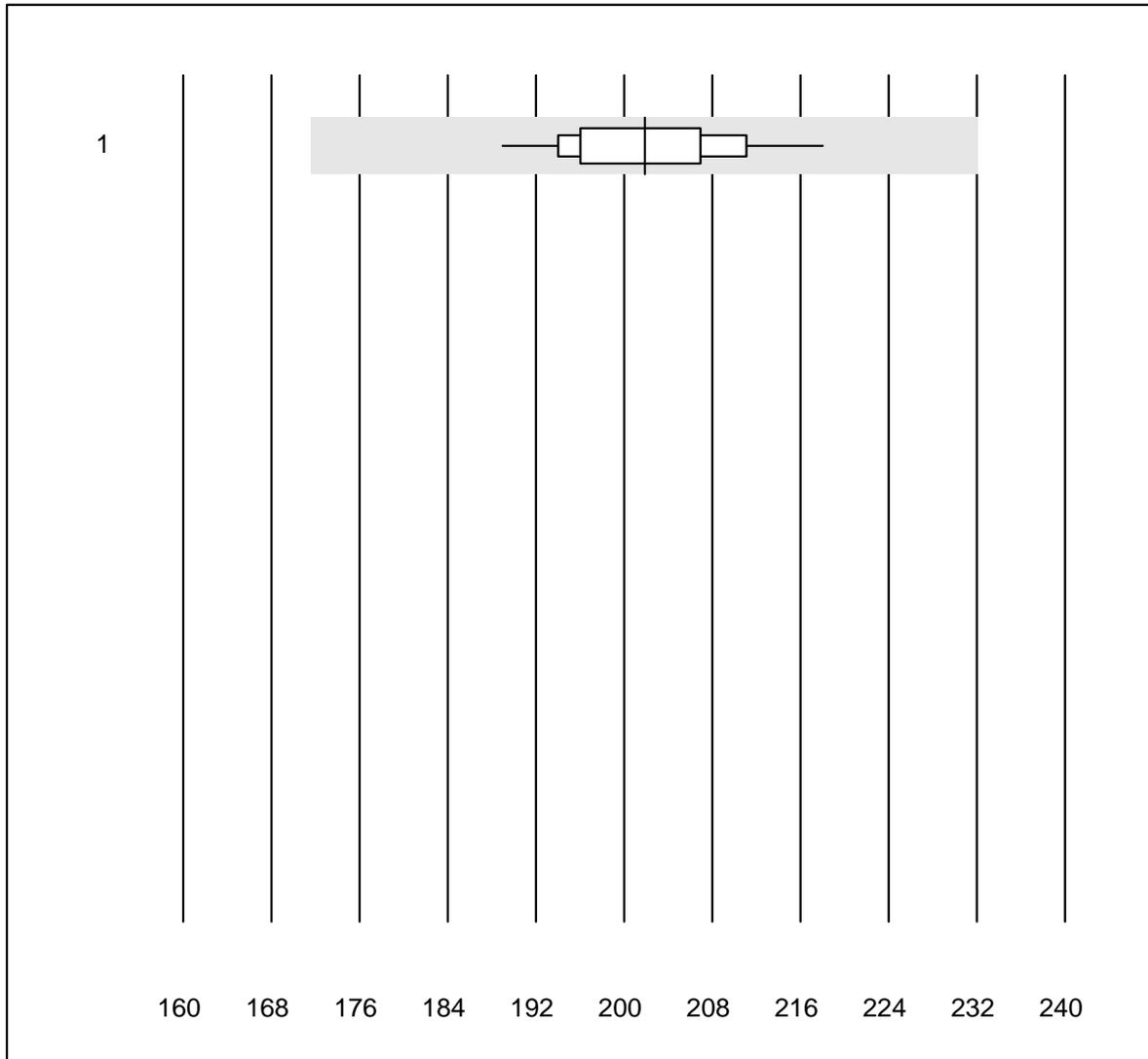
MQ tolerance : 15 %

Urea-Urine (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	25	100.0	0.0	0.0	202	3.7	e

Uric Acid-Urine

| | 0.85 | 0.89 | 0.93 | 0.97 | 1.01 | 1.05 | 1.09 | 1.13 | 1.17 | 1.21 | 1.25 |
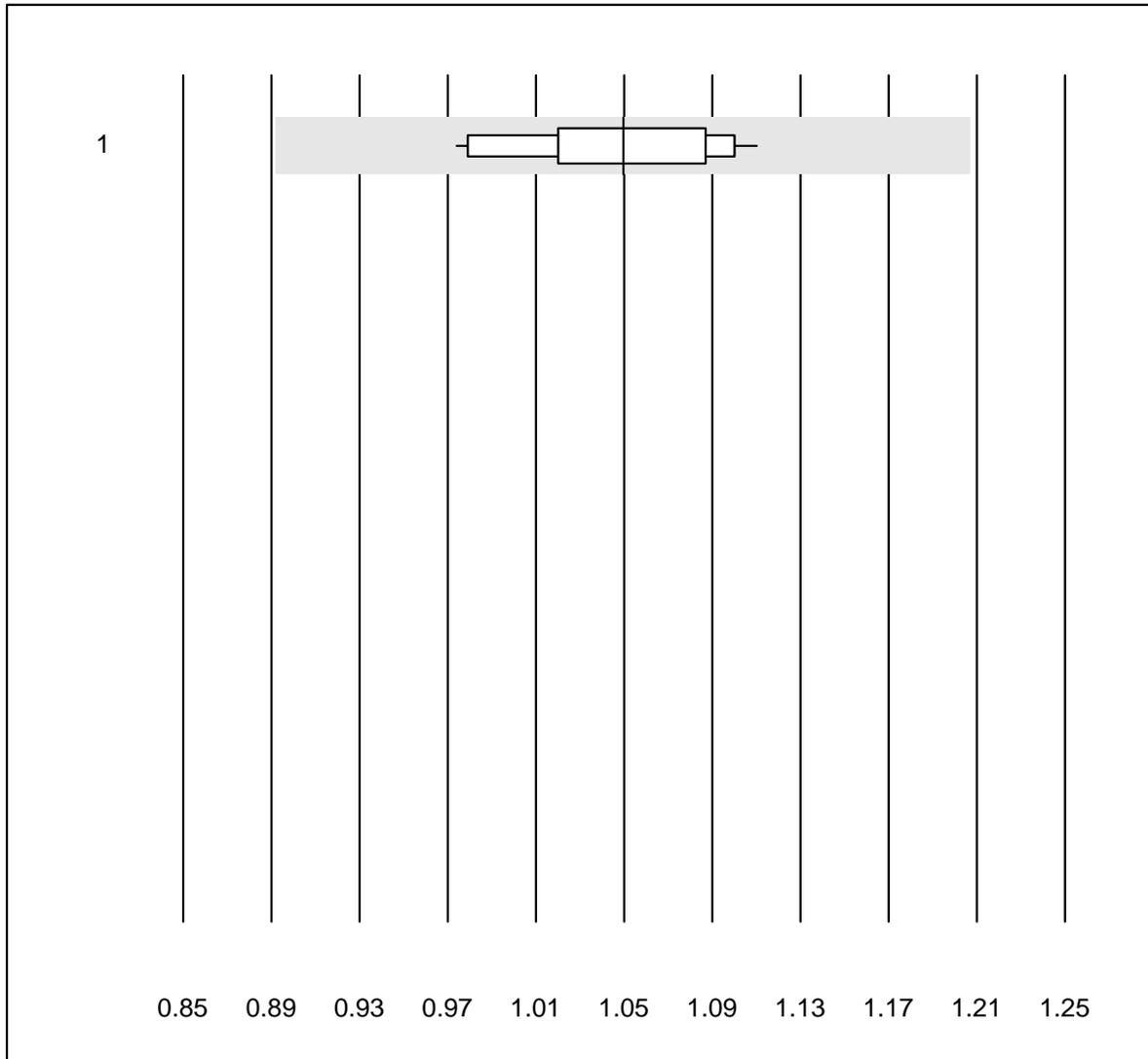
MQ tolerance : 15 %

Uric Acid-Urine (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Standard chemistry	18	100.0	0.0	0.0	1.05	3.9	e

Specific Gravity-Urine

| | 0.950 | 0.963 | 0.976 | 0.989 | 1.002 | 1.015 | 1.028 | 1.041 | 1.054 | 1.067 | 1.080 |
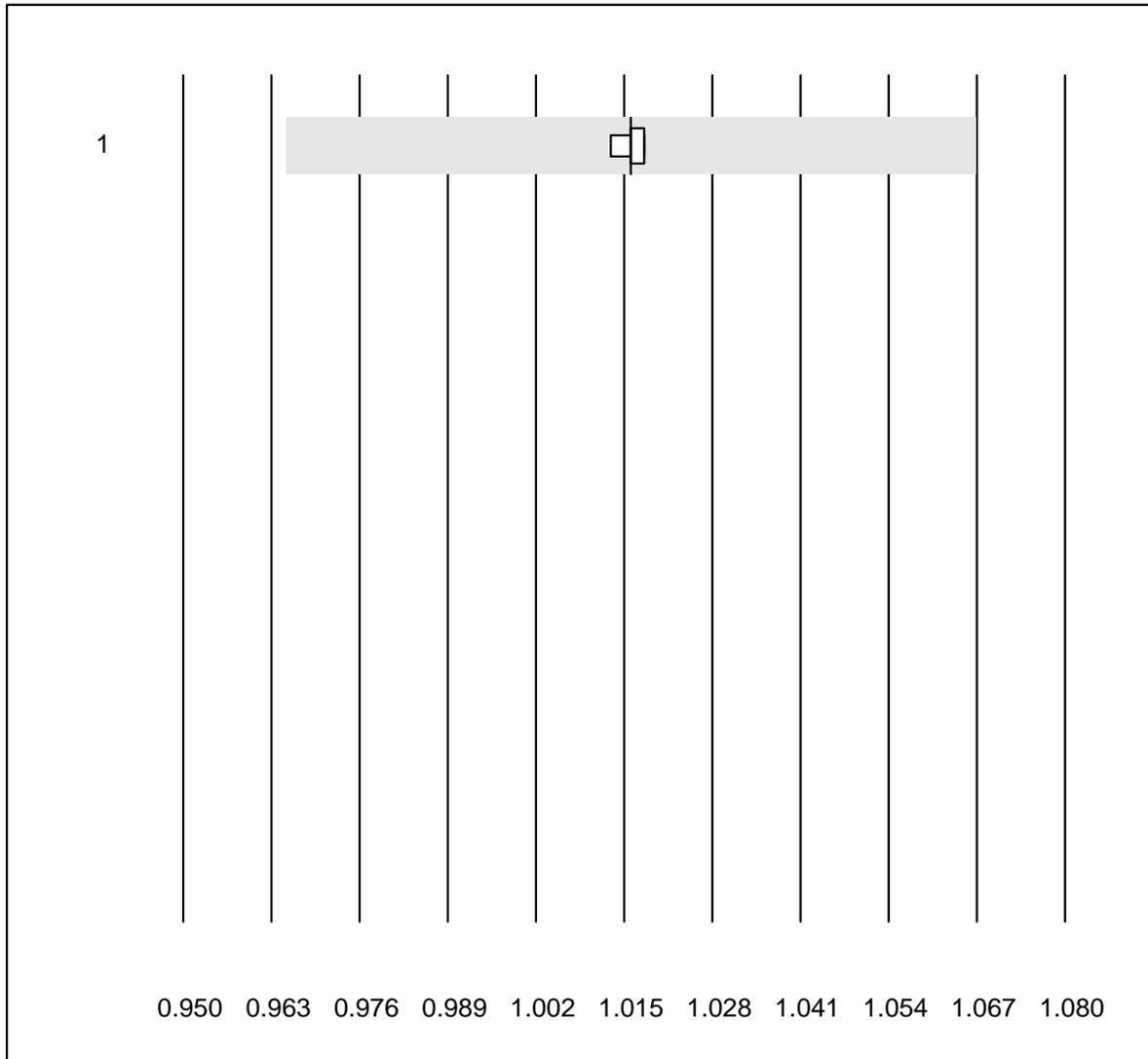
MQ tolerance : 5 %

Specific Gravity-Urine ()

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Refractometer	5	100.0	0.0	0.0	1.016	0.2	e

Creatinine U
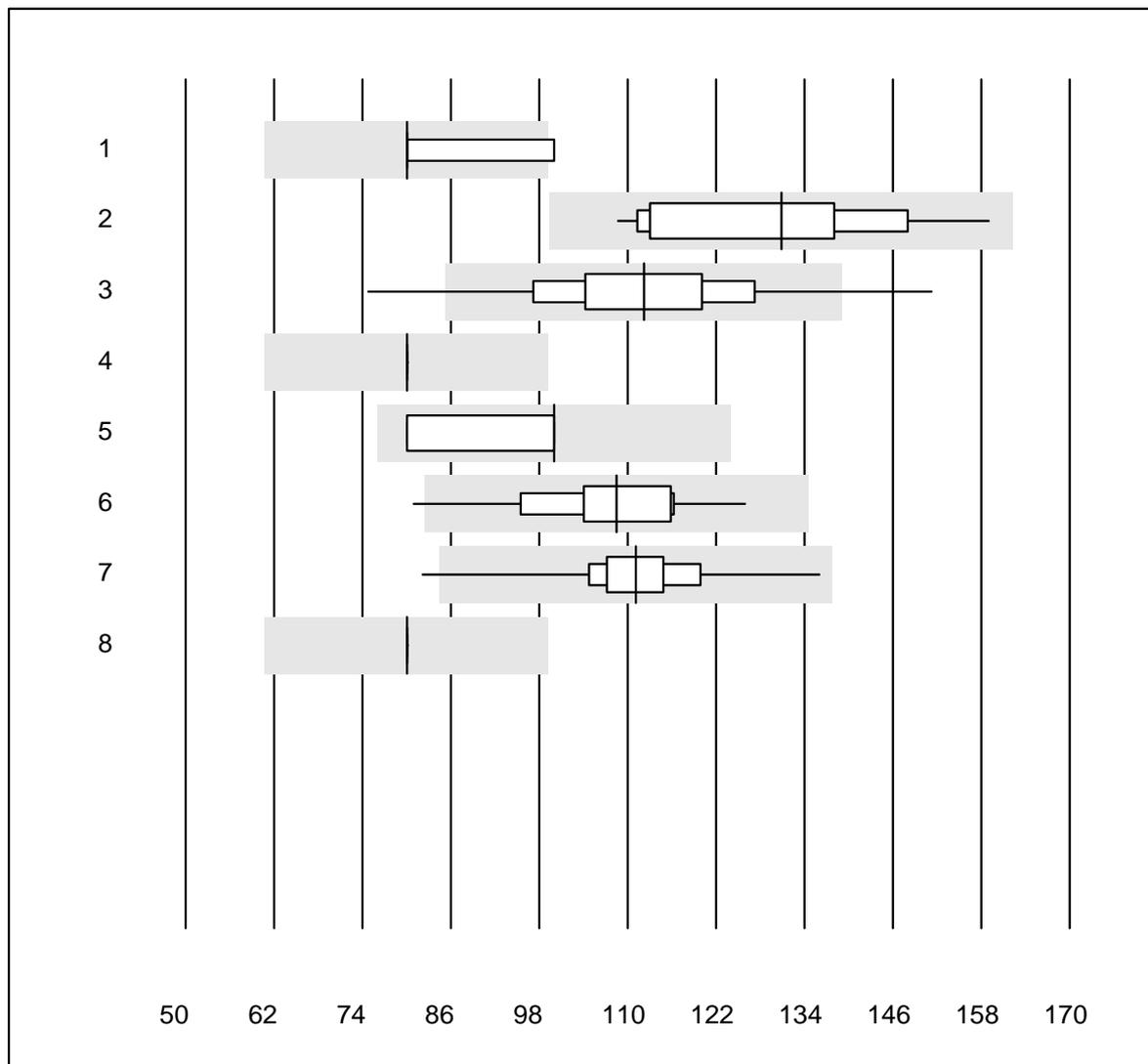
QUALAB tolerance : 24 %

Creatinine U (mg/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	Aution	4	75.0	25.0	0.0	80.0	11.8	e*
2	AFIAS	13	92.3	0.0	7.7	130.8	12.0	e*
3	Afinion	438	94.3	3.0	2.7	112.2	10.6	e
4	Sysmex U	18	44.4	0.0	55.6	80.0	0.0	a
5	Other methods	5	80.0	0.0	20.0	100.0	10.5	a
6	Turbidimetry	34	97.1	2.9	0.0	108.4	8.5	e
7	DCA2000/Vantage	148	95.2	0.7	4.1	111.1	6.6	e
8	Siemens Clinitek	18	94.4	0.0	5.6	80.0	0.0	e

Creatinin Urin
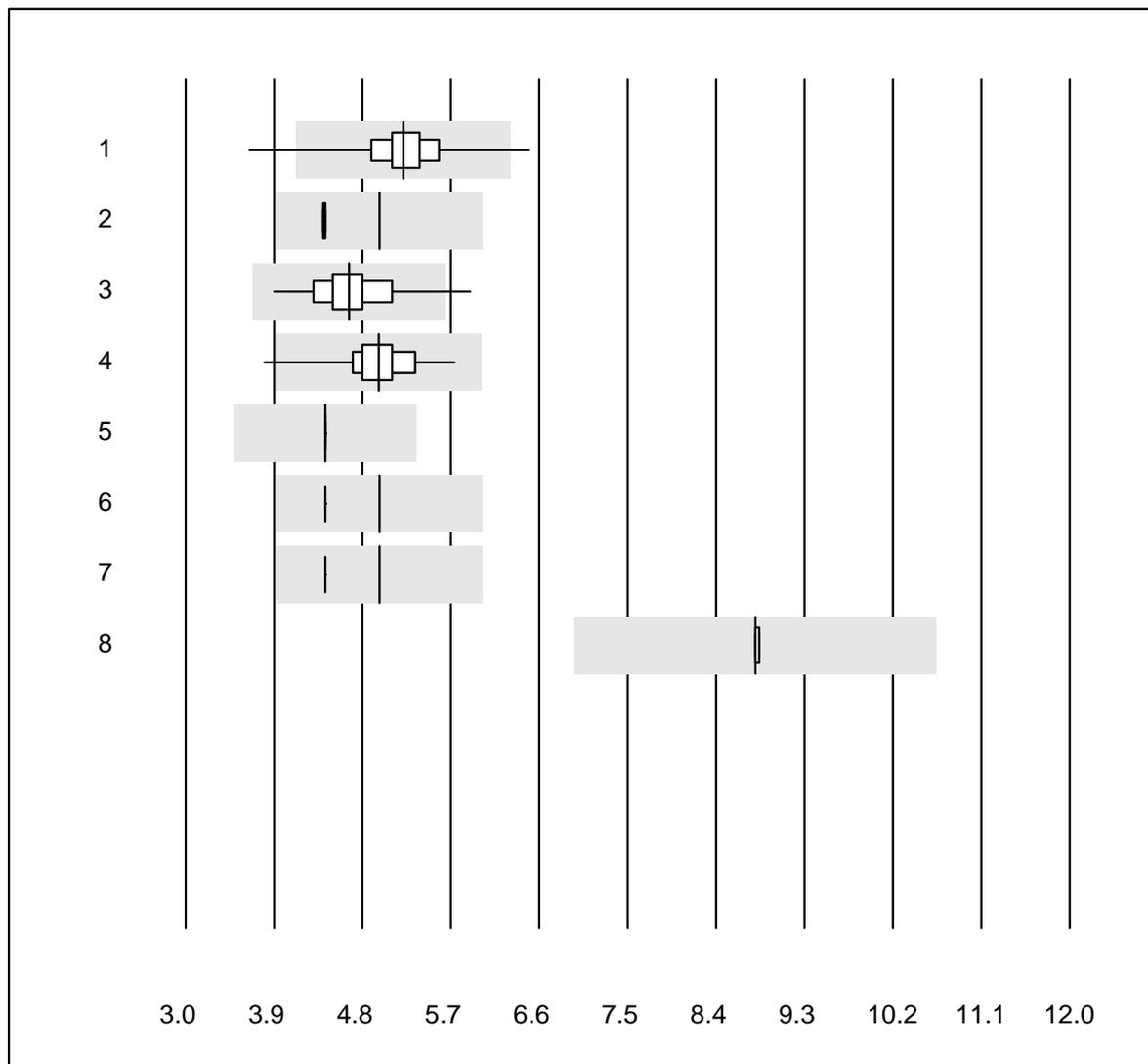
QUALAB tolerance : 21 %   Creatinin Urin (mmol/l)

No.	Methode	Total	% OK	% insuff.	% outlier	Target	CV%	Type
1	DCA2000/Vantage	146	93.1	2.1	4.8	5.2	6.5	e
2	Siemens Clinitek	7	28.6	0.0	71.4	5.0	0.3	a
3	Afinion	438	97.5	0.2	2.3	4.7	6.3	e
4	Standard chemistry	44	97.7	2.3	0.0	5.0	6.7	e
5	Sysmex U	15	80.0	0.0	20.0	4.4	0.0	e
6	Aution	5	20.0	0.0	80.0	5.0	0.0	a
7	Siemens Clinitek	11	9.1	0.0	90.9	5.0	0.0	a
8	Other methods	5	60.0	0.0	40.0	8.8	0.3	e

One result was submitted but not published because the method group was too small. (<4 results per group)