LABQUALITY

External Quality Assessment Scheme

Natriuretic peptides 2, B-type, BNP
Round 1, 2023

Specimens
Please find enclosed 2 commercial liquid preparations S001 and S002 from human source, each 3 mL. Preservatives and stabilizers are added.

Caution
Quality control specimens derived from human blood must be handled with the same care as patient samples, i.e. as potential transmitters of serious diseases. The specimens are found to be HBsAg, HCVAb and HIVAgAb negative when tested with licensed reagents, but no known test method can offer complete assurance that the specimens will not transmit these or other infectious diseases.

Examinations
BNP

Storage and use
The samples are ready to use and are treated like patient samples. If the sample is frozen when it arrives and you want to analyze it immediately, allow it to thaw for about 20 minutes at room temperature. Then mix the sample for a few minutes before analyzing. Samples stored refrigerated at +2 … +8 °C are allowed to warm to room temperature for a few minutes before analysis by inverting the vial. Open the flask and transfer the required amount of control to a clean sample cup for analysis. The sample material must not be returned to the original vial.

Result reporting
Please enter the results and methods via LabScala (www.labscala.com). If you cannot find your instrument or reagent from the registry, please contact the EQA coordinator.

S001:

LQ738123011

S002:

LQ738123012

BNP |Arc.A

Specimen S001, BNP

The uncertainty of the assigned value is not negligible, and evaluations could be affected.
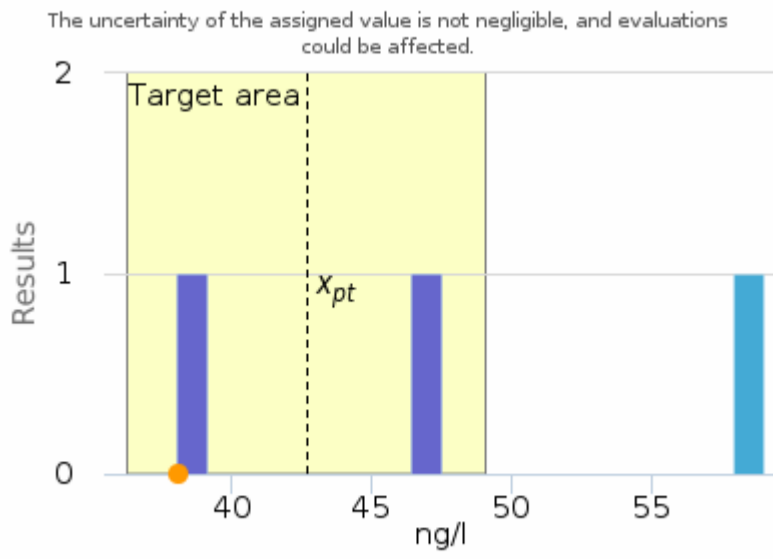
- All method groups
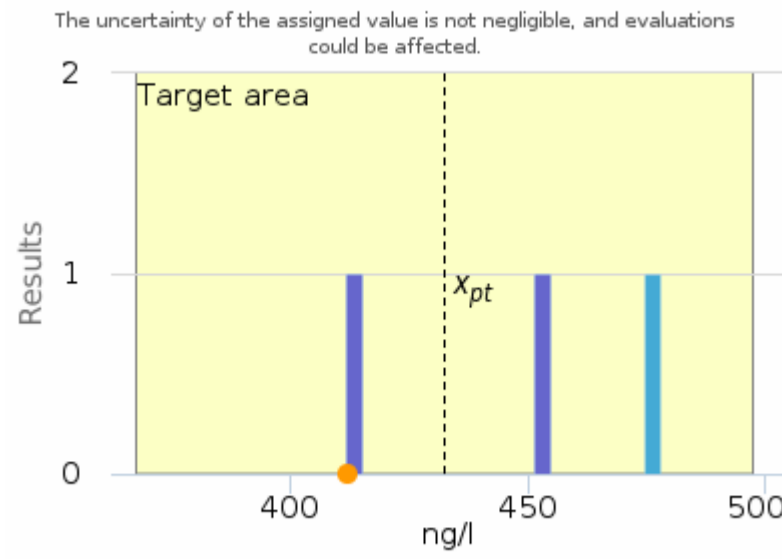- Abbott Architect & Alinity BNP
- Own result: 38.1 (08.02.2023)
- Diff%: -10.8 | x_{pt}: 42.7
- Target area: 36.3-49.1 | Target: ±15%

	x_{pt}	sd	SEM	CV%	n
Abbott Architect & Alinity BNP	42.7 ng/l	6.5	4.6	15.3	2
All methods	48.1 ng/l	10.5	6.1	21.8	3

Specimen S002, BNP

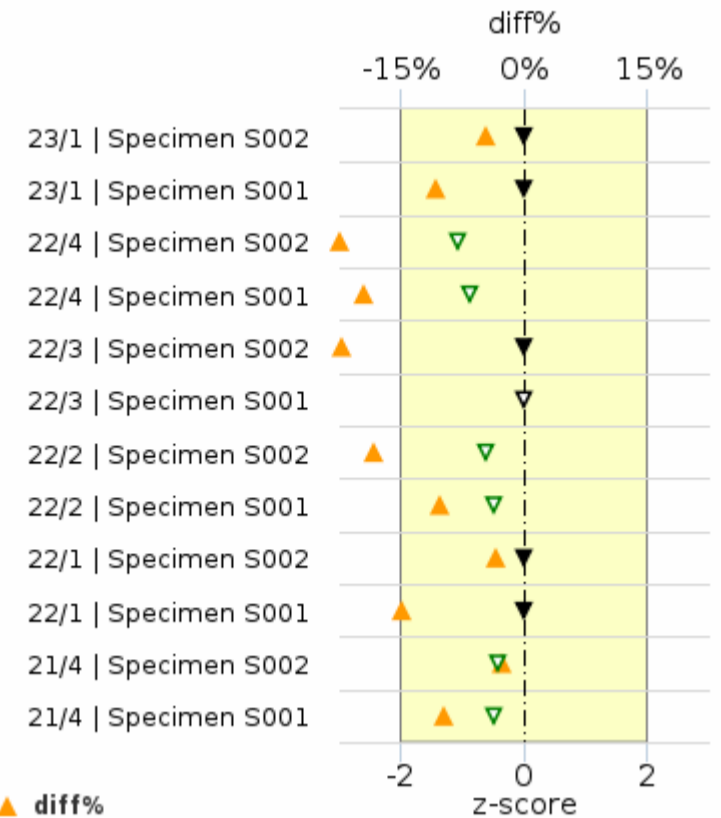The uncertainty of the assigned value is not negligible, and evaluations could be affected.

- All method groups
- Abbott Architect & Alinity BNP
- Own result: 412.0 (08.02.2023)
- Diff%: -4.7 | x_{pt}: 432.5
- Target area: 367.6-497.4 | Target: ±15%

	x_{pt}	sd	SEM	CV%	n
Abbott Architect & Alinity BNP	432.5 ng/l	29.0	20.5	6.7	2
All methods	447.7 ng/l	33.3	19.2	7.4	3

History

- ▲ diff%
- ▽ Only participant in a method group
- ▼ Due to the small number of results, the z score is not calculated
- ▽ Z-score is uncertain due to the small number of observations

Round	Sample	x_{pt}	Result	diff%	z-score
23/1	Specimen S002	432.5	412.0	-4.7%	-
23/1	Specimen S001	42.7	38.1	-10.8%	-
22/4	Specimen S002	461.4	326.1	-29.3%	-1.08
22/4	Specimen S001	195.7	157.5	-19.5%	-0.88
22/3	Specimen S002	449.6	349.7	-22.2%	-
22/3	Specimen S001	-	20.4	-	-
22/2	Specimen S002	508.3	415.4	-18.3%	-0.63
22/2	Specimen S001	207.1	186.3	-10.1%	-0.49
22/1	Specimen S002	472.6	457.0	-3.3%	-
22/1	Specimen S001	48.4	41.2	-14.8%	-
21/4	Specimen S002	1615.7	1571.7	-2.7%	-0.41
21/4	Specimen S001	40.7	36.7	-9.8%	-0.50

Report info

Participants

48 participants from 13 countries.

Report info

Your own result should be compared to others using the same method.

Assigned values (x_{pt}, target values) are means of the results where results deviating more than +/- 3*standard deviation from the median are removed. The standard uncertainty (u) of the assigned value is reported as standard error of the mean (SEM). Additionally, if the measurement uncertainty of the target value is large an automatic text is printed on the report: "The uncertainty of the assigned value is not negligible, and evaluations could be affected."

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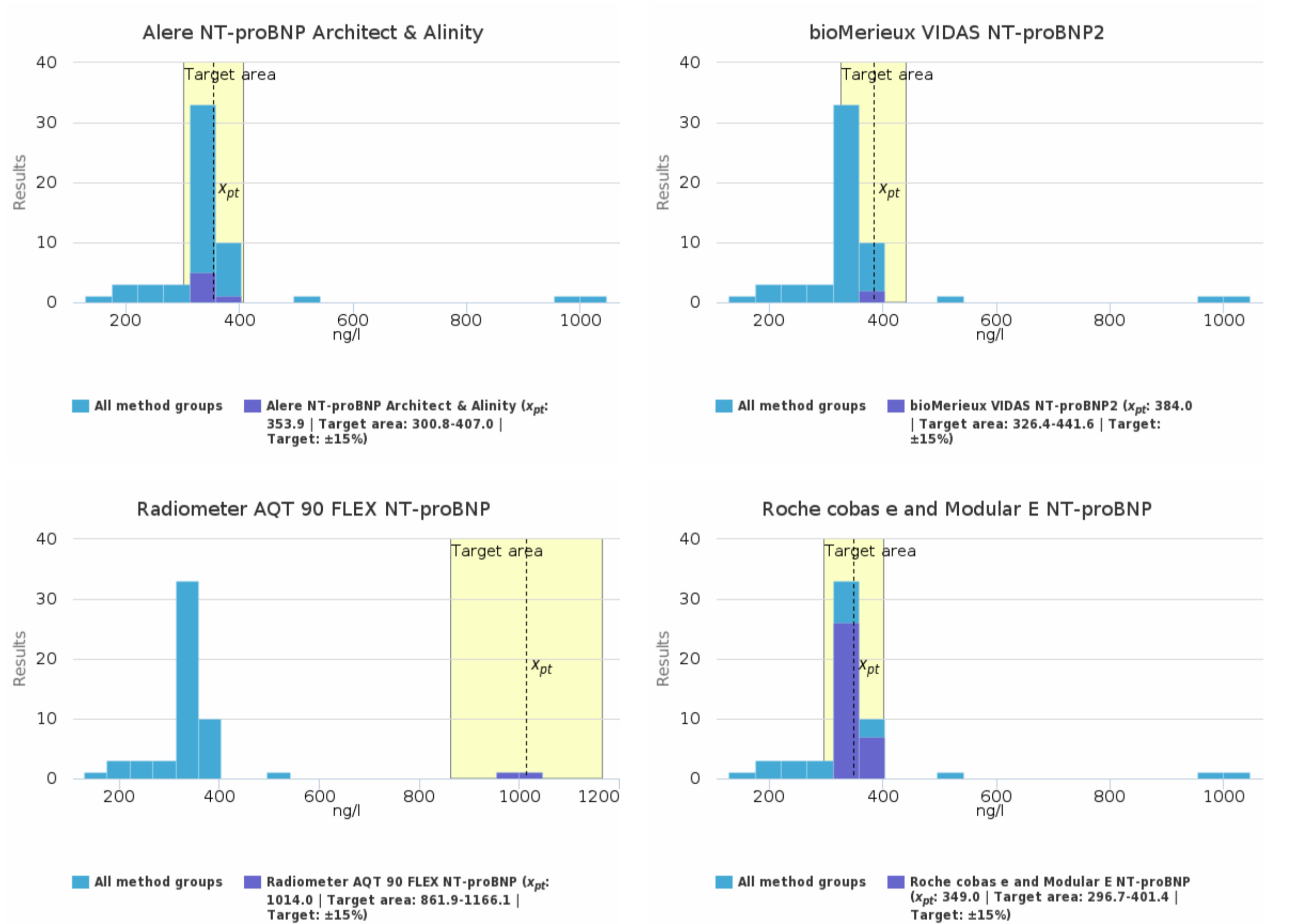
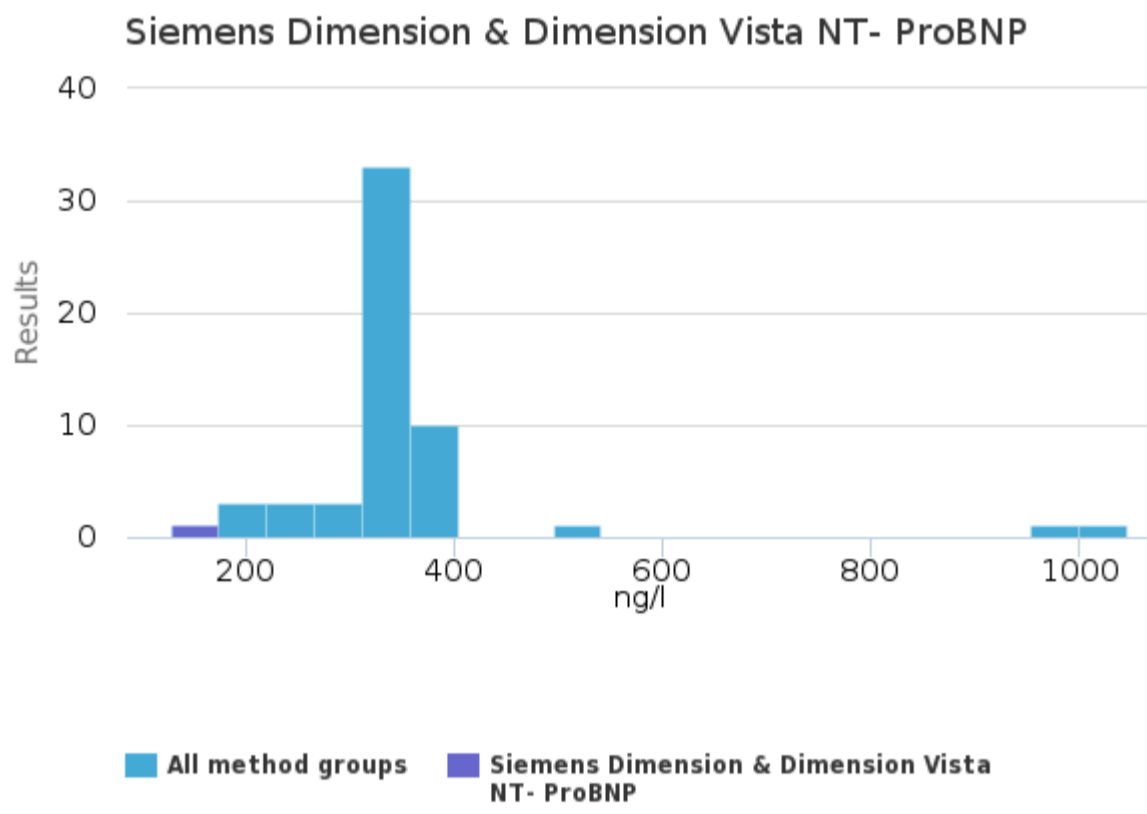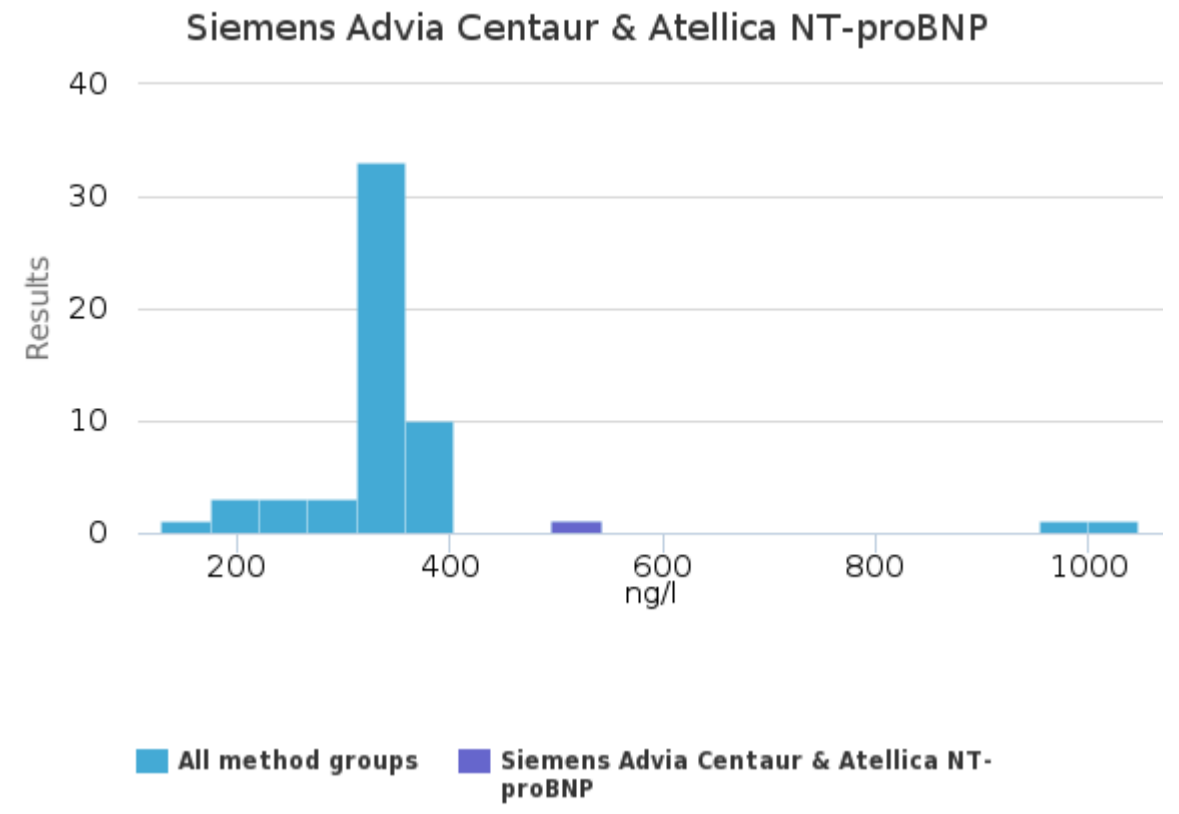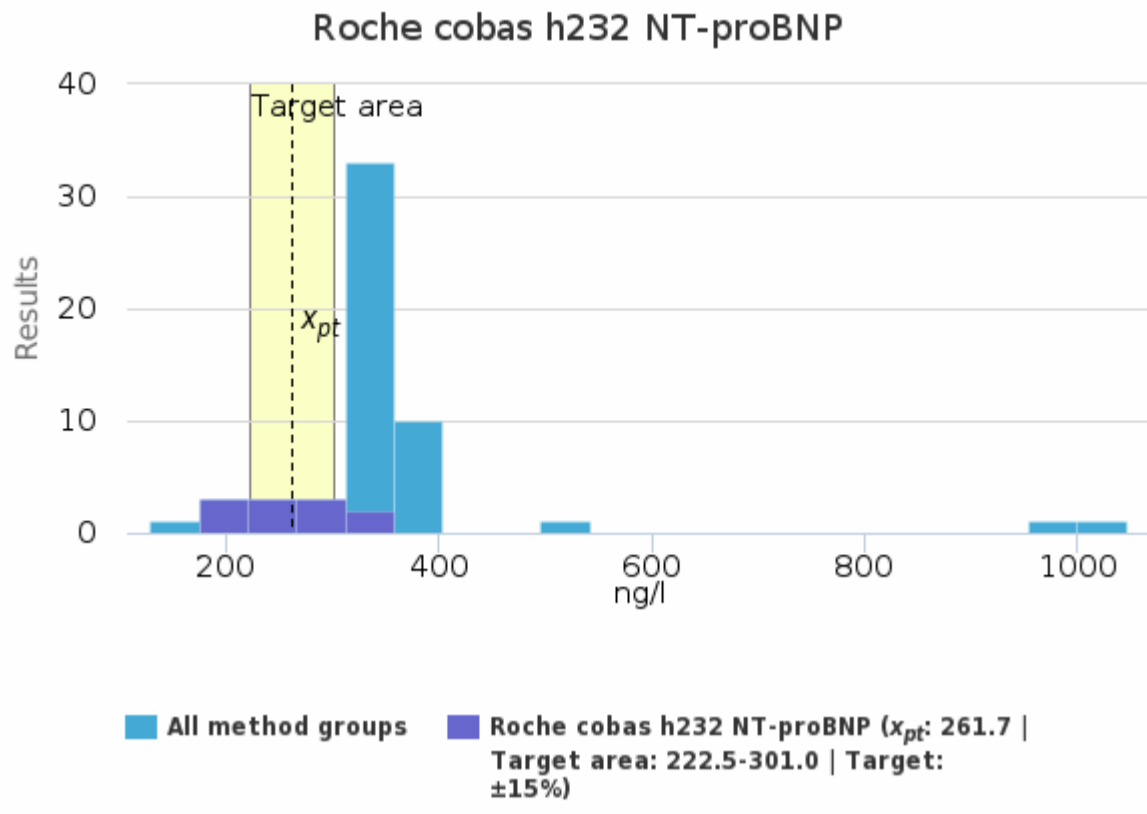Results reported with < or > -signs cannot be included in the statistics.

For information on report interpretation and performance evaluation, please see the " EQAS Interpretation guidelines" LabScala User instructions (top right corner ?Help link).

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Sample S001 | NT-proBNP, ng/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Alere NT-proBNP Architect & Alinity	353.9	353.8	5.9	1.7	2.4	345.0	362.9	-	6
bioMerieux VIDAS NT-proBNP2	384.0	384.0	5.7	1.5	4.0	380.0	388.0	-	2
Radiometer AQT 90 FLEX NT-proBNP	1014.0	1014.0	45.3	4.5	32.0	982.0	1046.0	-	2
Roche cobas e and Modular E NT-proBNP	349.0	347.0	13.8	4.0	2.4	321.4	380.0	-	33
Roche cobas h232 NT-proBNP	261.7	251.0	41.8	16.0	12.6	209.0	321.0	-	11
Siemens Advia Centaur & Atellica NT-proBNP	-	-	-	-	-	536.0	536.0	-	1
Siemens Dimension & Dimension Vista NT- ProBNP	-	-	-	-	-	129.0	129.0	-	1
All	**332.5**	**345.5**	**58.1**	**17.5**	**7.9**	**129.0**	**536.0**	**2**	**56**

Sample S001 | NT-proBNP, ng/l| histogram summaries in LabScala

Alere NT-proBNP Architect & Alinity

- All method groups
- Alere NT-proBNP Architect & Alinity (x_{pt}: 353.9 | Target area: 300.8-407.0 | Target: ±15%)

bioMerieux VIDAS NT-proBNP2

- All method groups
- bioMerieux VIDAS NT-proBNP2 (x_{pt}: 384.0 | Target area: 326.4-441.6 | Target: ±15%)

Radiometer AQT 90 FLEX NT-proBNP

- All method groups
- Radiometer AQT 90 FLEX NT-proBNP (x_{pt}: 1014.0 | Target area: 861.9-1166.1 | Target: ±15%)

Roche cobas e and Modular E NT-proBNP

- All method groups
- Roche cobas e and Modular E NT-proBNP (x_{pt}: 349.0 | Target area: 296.7-401.4 | Target: ±15%)

Roche cobas h232 NT-proBNP

- ■ All method groups
- ■ Roche cobas h232 NT-proBNP (x_{pt}: 261.7 | Target area: 222.5-301.0 | Target: ±15%)

Siemens Advia Centaur & Atellica NT-proBNP

- ■ All method groups
- ■ Siemens Advia Centaur & Atellica NT-proBNP

Siemens Dimension & Dimension Vista NT- ProBNP

- ■ All method groups
- ■ Siemens Dimension & Dimension Vista NT- ProBNP

Specimen S001 | BNP, ng/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Abbott Architect & Alinity BNP	42.7	42.7	6.5	15.3	4.6	38.1	47.3	-	2
Quidel Triage / Beckman Coulter BNP	-	-	-	-	-	59.0	59.0	-	1
All	**48.1**	**47.3**	**10.5**	**21.8**	**6.1**	**38.1**	**59.0**	**-**	**3**

Specimen S001 | BNP, ng/l| histogram summaries in LabScala
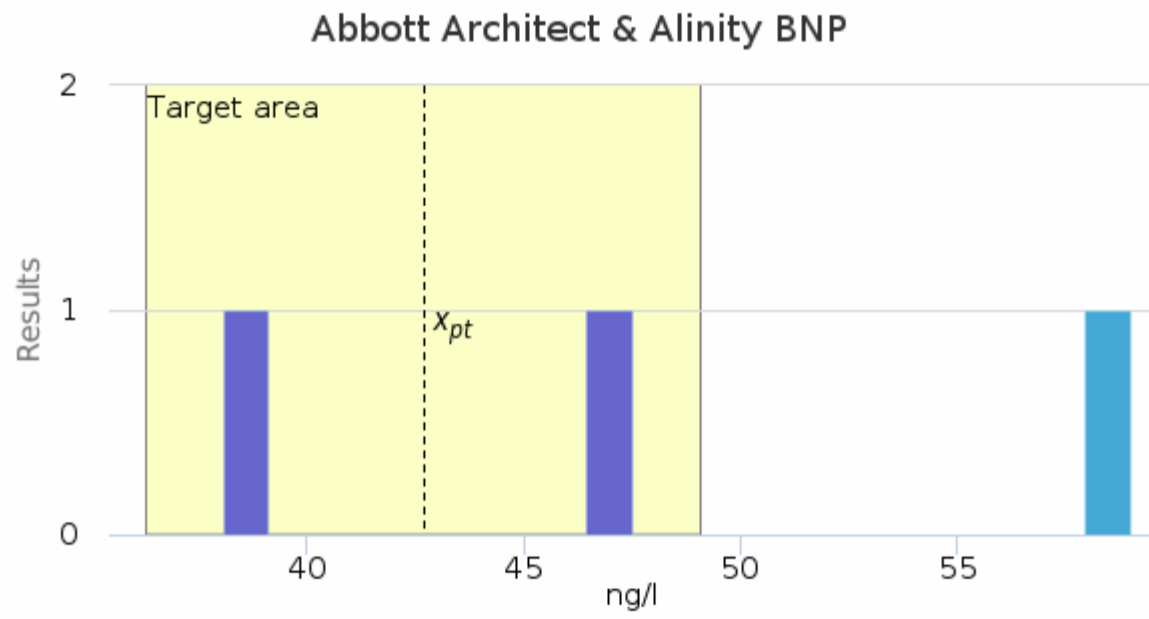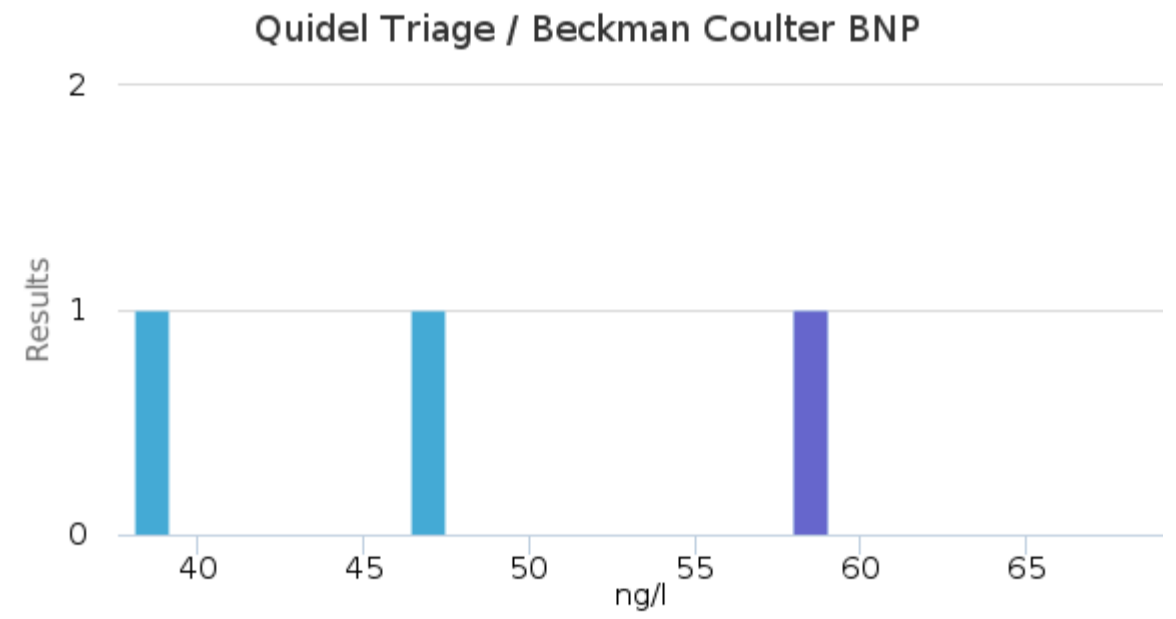
Sample S002 | NT-proBNP, ng/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Alere NT-proBNP Architect & Alinity	1728.5	1748.1	43.2	2.5	17.6	1648.0	1762.6	-	6
bioMerieux VIDAS NT-proBNP2	2119.0	2119.0	11.3	0.5	8.0	2111.0	2127.0	-	2
Radiometer AQT 90 FLEX NT-proBNP	4556.5	4556.5	178.9	3.9	126.5	4430.0	4683.0	-	2
Roche cobas e and Modular E NT-proBNP	1640.6	1648.0	65.5	4.0	11.4	1505.3	1762.0	-	33
Roche cobas h232 NT-proBNP	1034.3	979.0	147.7	14.3	44.5	837.0	1323.0	-	11
Siemens Advia Centaur & Atellica NT-proBNP	-	-	-	-	-	2100.0	2100.0	-	1
Siemens Dimension & Dimension Vista NT- ProBNP	-	-	-	-	-	783.0	783.0	-	1
All	**1537.2**	**1645.0**	**315.7**	**20.5**	**43.0**	**783.0**	**2127.0**	**2**	**56**

Sample S002 | NT-proBNP, ng/l| histogram summaries in LabScala

Roche cobas h232 NT-proBNP

- All method groups
- Roche cobas h232 NT-proBNP (x_{pt}: 1034.3 | Target area: 879.1-1189.4 | Target: ±15%)

Siemens Advia Centaur & Atellica NT-proBNP

- All method groups
- Siemens Advia Centaur & Atellica NT-proBNP

Siemens Dimension & Dimension Vista NT- ProBNP

- All method groups
- Siemens Dimension & Dimension Vista NT- ProBNP

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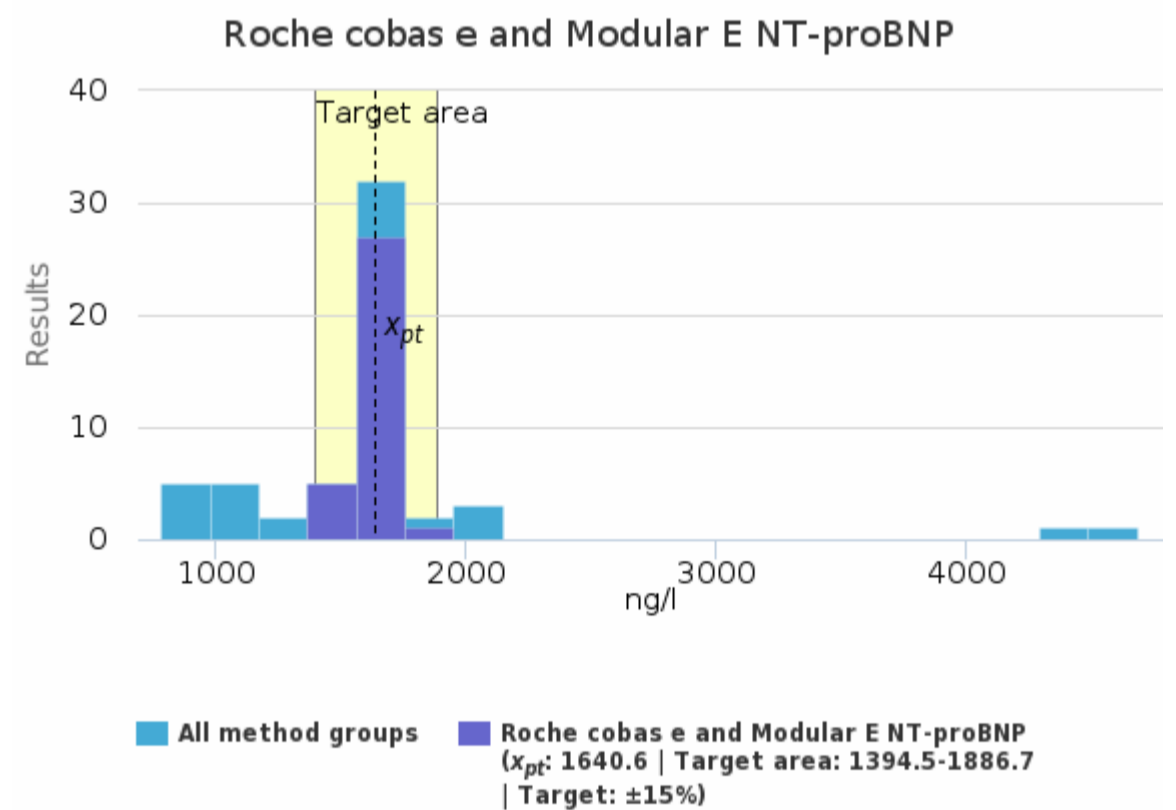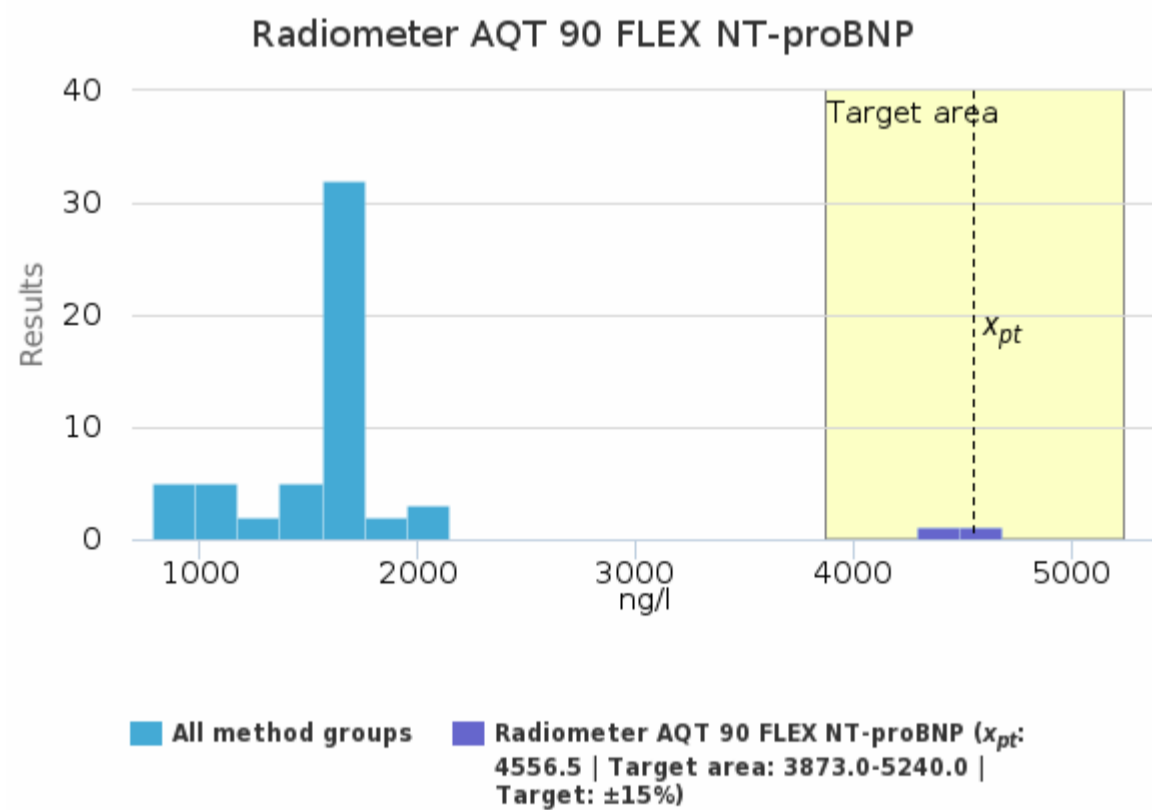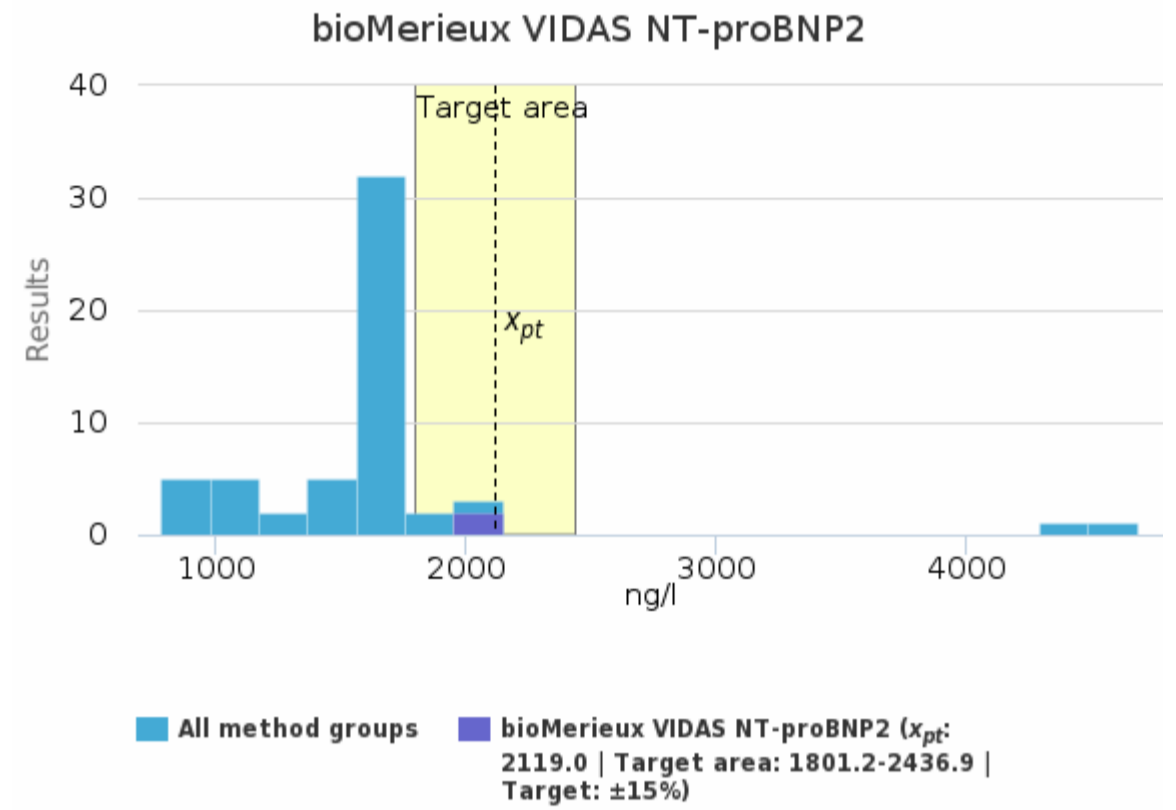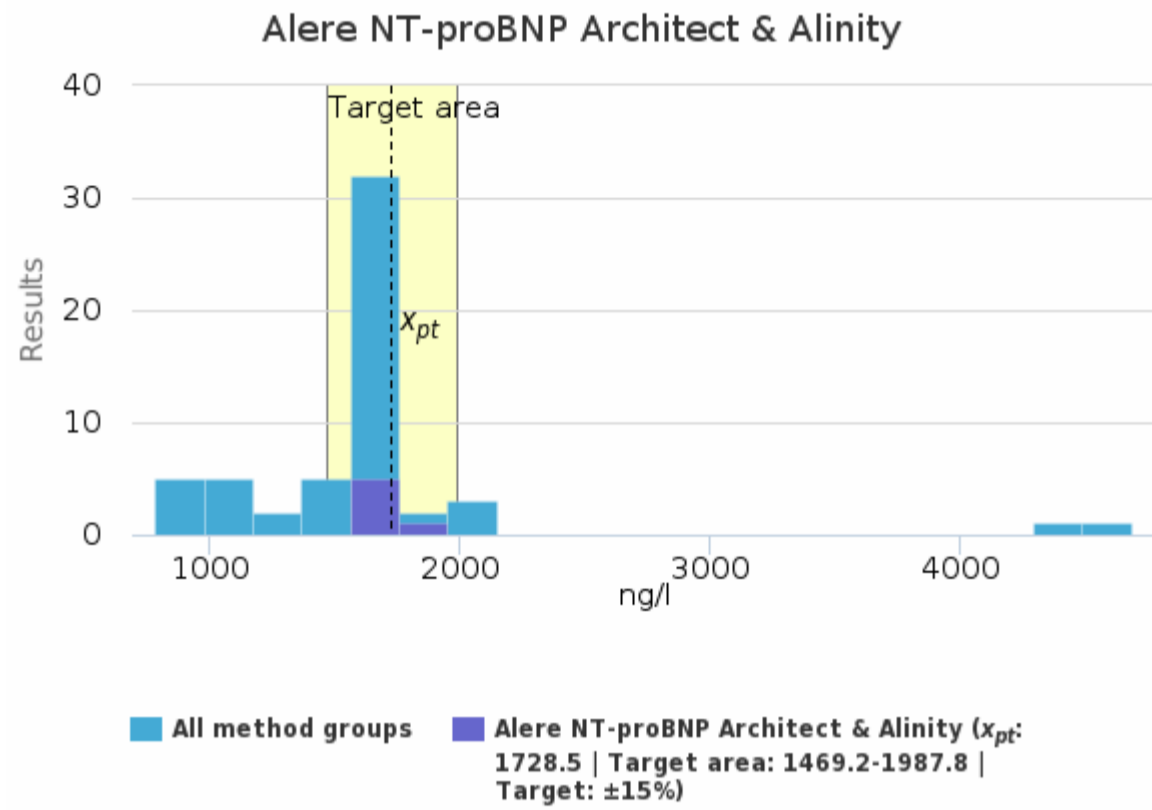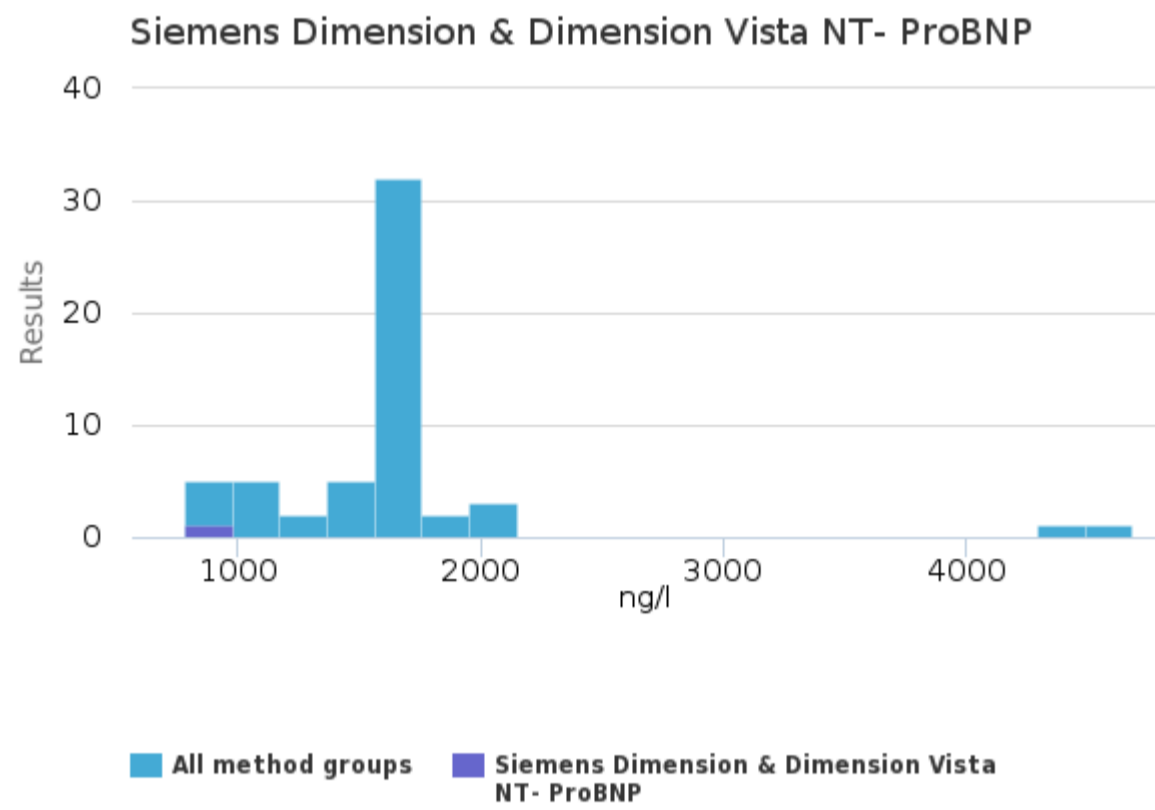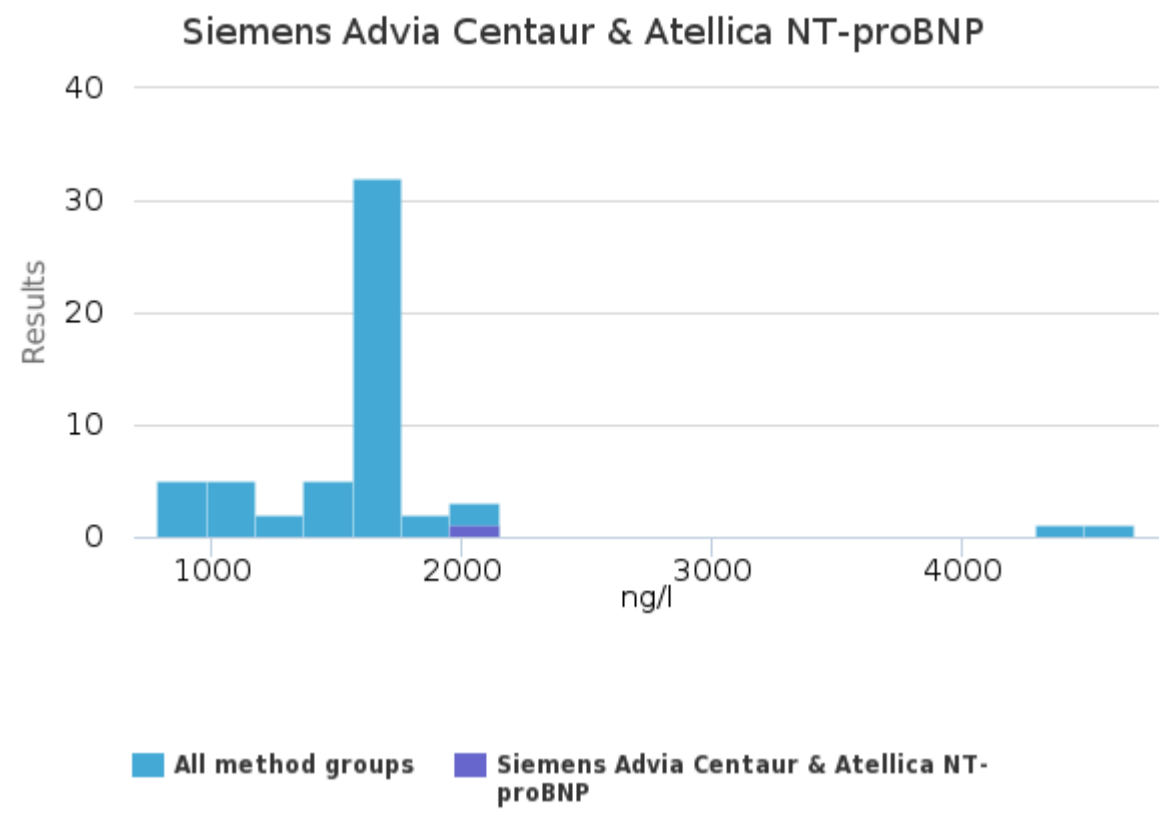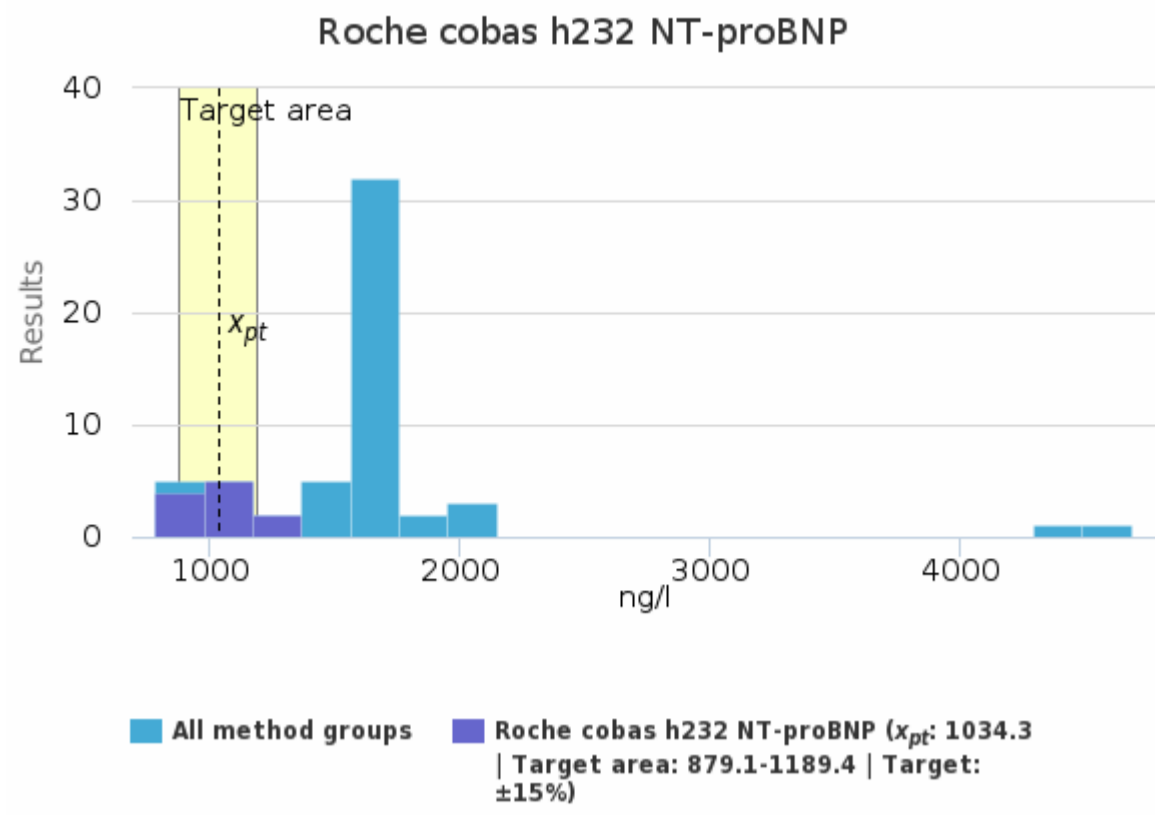
Specimen S002 | BNP, ng/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Abbott Architect & Alinity BNP	432.5	432.5	29.0	6.7	20.5	412.0	453.0	-	2
Quidel Triage / Beckman Coulter BNP	-	-	-	-	-	478.0	478.0	-	1
All	**447.7**	**453.0**	**33.3**	**7.4**	**19.2**	**412.0**	**478.0**	**-**	**3**

Specimen S002 | BNP, ng/l| histogram summaries in LabScala

Report info

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External Quality Assessment Scheme

Natriuretic peptides 2, B-type, BNP
Round 1, 2023

Specimens
Sample S001 (LQ738123011) and sample S002 (LQ738123012) were commercial liquid human serum samples. Preservatives were added to the samples.

Based on the previous tests and the results of this round, the samples are homogeneous, stable and suitable for the external quality assessment scheme.

The materials were sent without temperature control packaging.

Report info
Please see the description of the data analysis on the last page of the laboratory-specific histogram and Global report. It is important to read the Final report first, because it contains important information of the samples and results in each round.

From round 2, 2021 on the results are reported as ng/L.

Comments – Expert
In this round there were two participants in Abbott Architect & Alinity group and one participant in Quidel Triage / Beckman Coulter -group.

These samples were analysed also in round 3, 2022. Some improvement has occurred, since in previous round variation was larger and some results had to be excluded from statistical evaluation. In the current round variation between the groups was rather reasonable 21.8% (S001) and 7.4% (S002).

End of report