

External Quality Assessment Scheme

Natriuretic peptides 1, B-type, NT-proBNP 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

NT-proBNP

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:



S002:



2023-01-30

INSTRUCTIONS

Product no. 2690
LQ738123011-012/US

If the kit is incomplete or contains damaged specimens, please report immediately to info@labquality.fi

The results should be reported no later than **February 20, 2023.**

Inquiries

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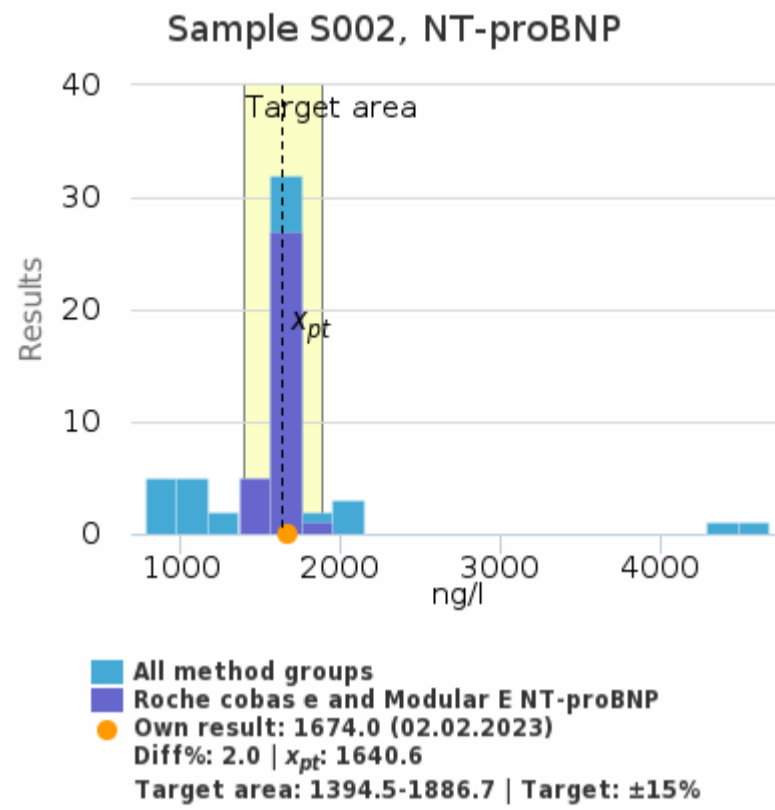
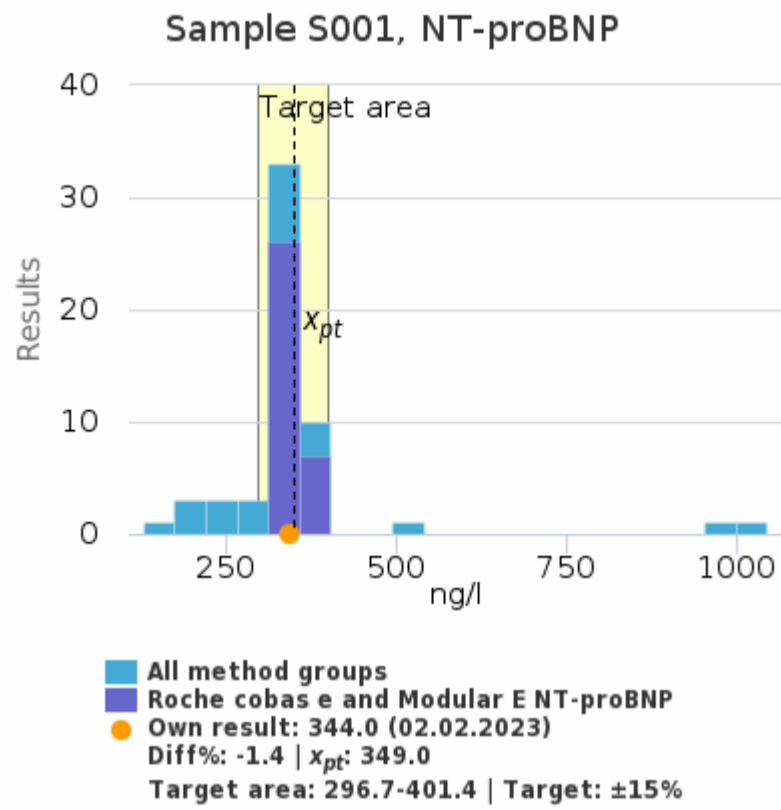
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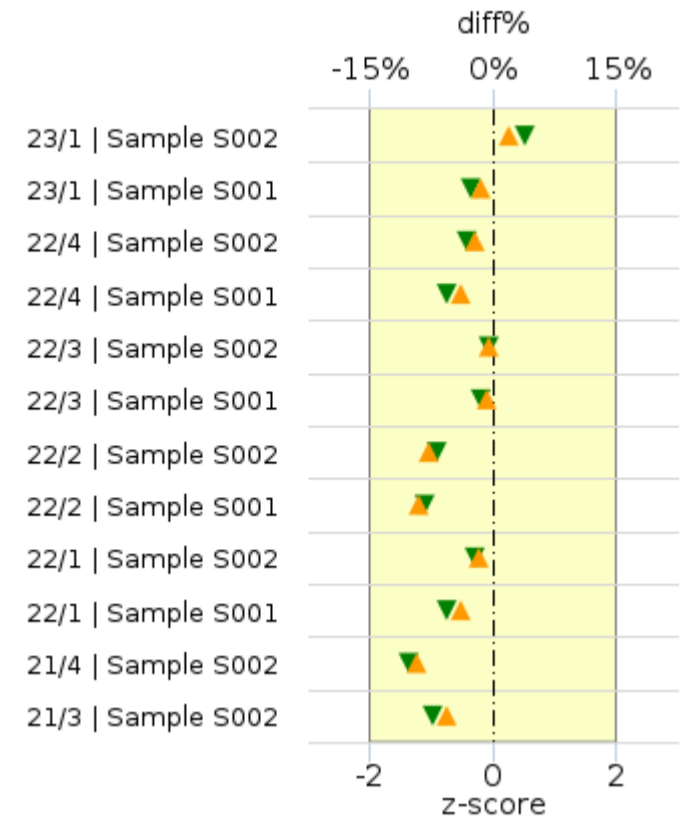
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NT-proBNP |Beta e



History



▲ diff%
▼ z-score

	x_{pt}	sd	SEM	CV%	n
Roche cobas e and Modular E NT-proBNP	349.0 ng/l	13.8	2.4	4.0	33
All methods	332.5 ng/l	58.1	7.9	17.5	56

	x_{pt}	sd	SEM	CV%	n
Roche cobas e and Modular E NT-proBNP	1640.6 ng/l	65.5	11.4	4.0	33
All methods	1537.2 ng/l	315.7	43.0	20.5	56

Round	Sample	x_{pt}	Result	diff%	z-score
23/1	Sample S002	1640.6	1674.0	2.0%	0.51
23/1	Sample S001	349.0	344.0	-1.4%	-0.36
22/4	Sample S002	2027.9	1983.0	-2.2%	-0.42
22/4	Sample S001	542.9	522.0	-3.9%	-0.74
22/3	Sample S002	1641.3	1635.0	-0.4%	-0.08
22/3	Sample S001	348.9	346.0	-0.8%	-0.20
22/2	Sample S002	2013.7	1854.0	-7.9%	-0.91
22/2	Sample S001	549.7	501.0	-8.9%	-1.10
22/1	Sample S002	1825.2	1792.0	-1.8%	-0.29
22/1	Sample S001	403.1	387.0	-4.0%	-0.76
21/4	Sample S002	8010.2	7275.0	-9.2%	-1.37
21/3	Sample S002	1620.4	1529.0	-5.6%	-0.97

Report info**Participants**

48 participants from 13 countries.

Report info

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

Assigned values (\bar{x}_p , 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."

In case the client's result is the only one in the method group, no assigned value will be calculated, no target area shown, and no statistics calculated. In case there are only a few results in the client's own method group, the result can be compared to all method mean or to a group that is similar to the own method.

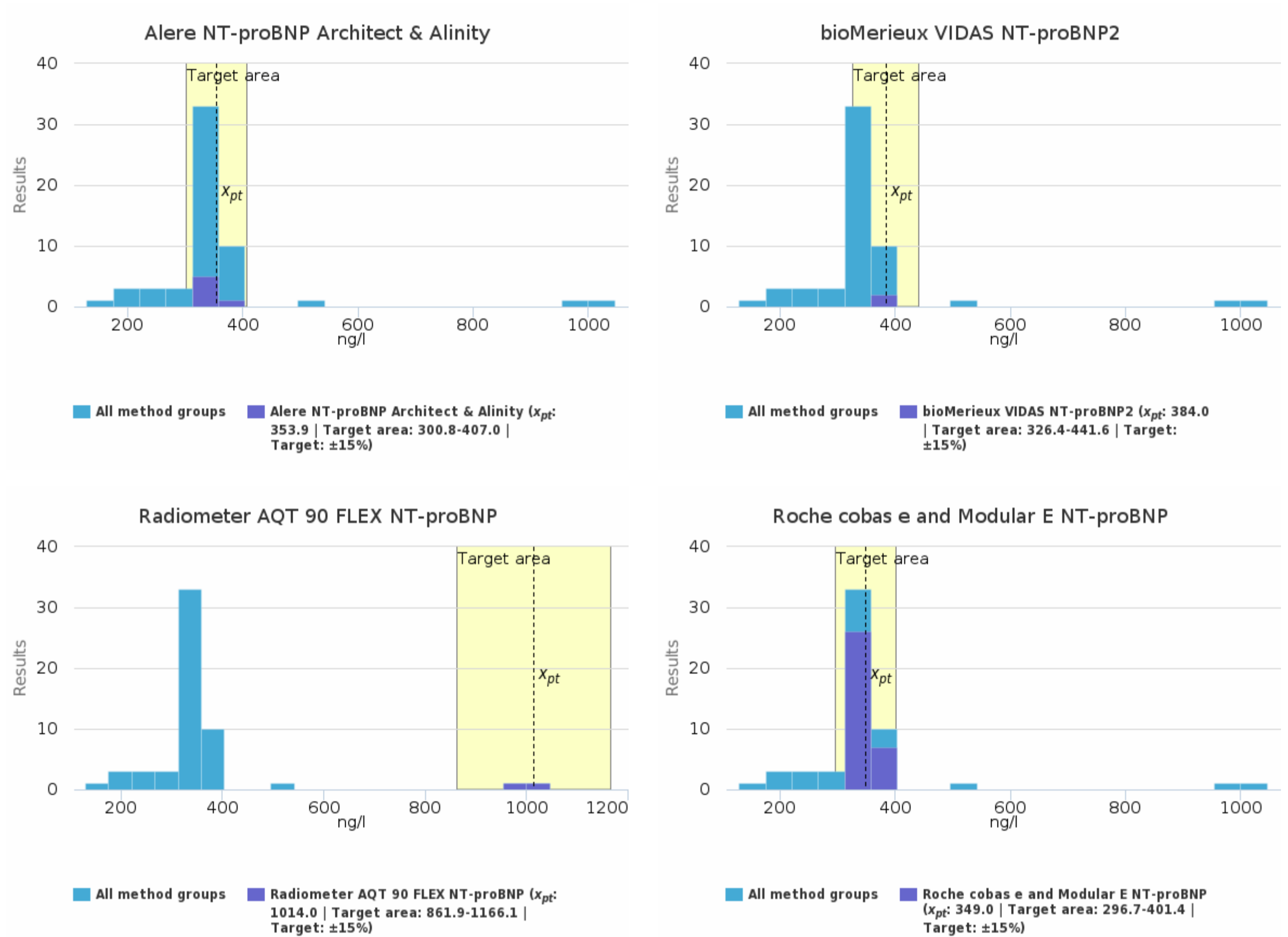
Results reported with $<$ or $>$ -signs cannot be included in the statistics.

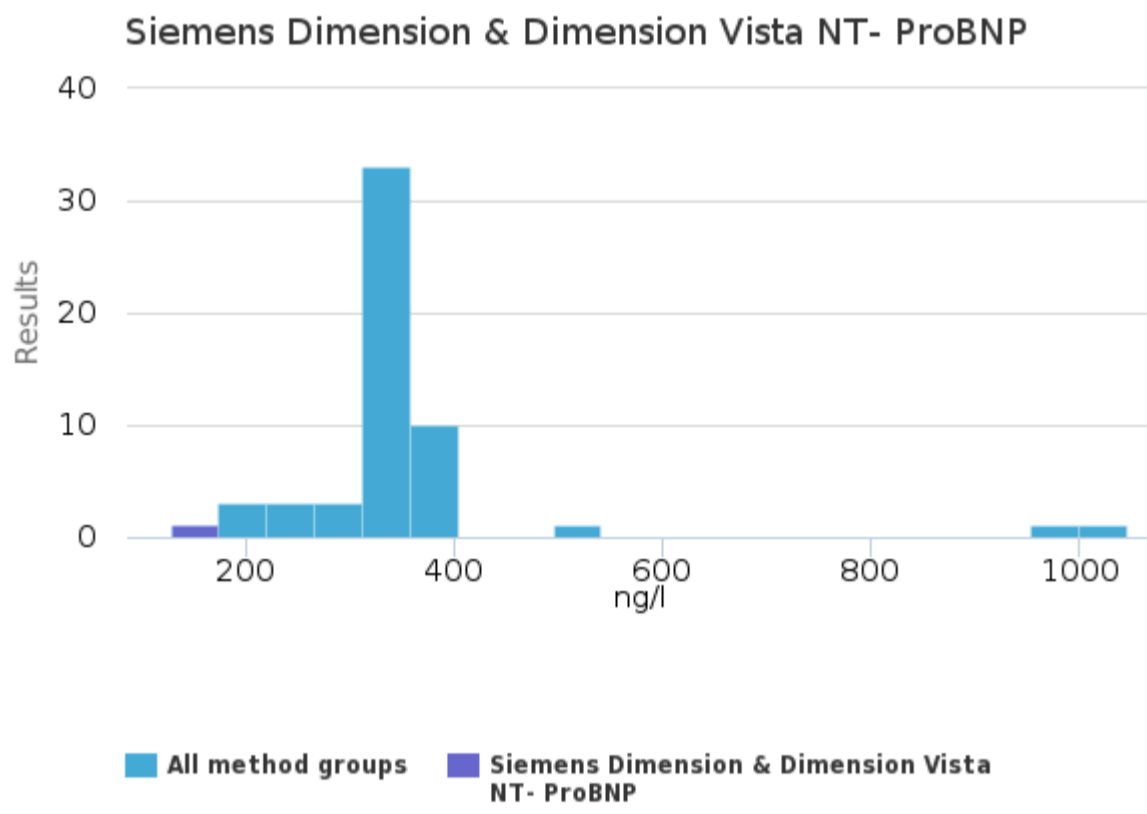
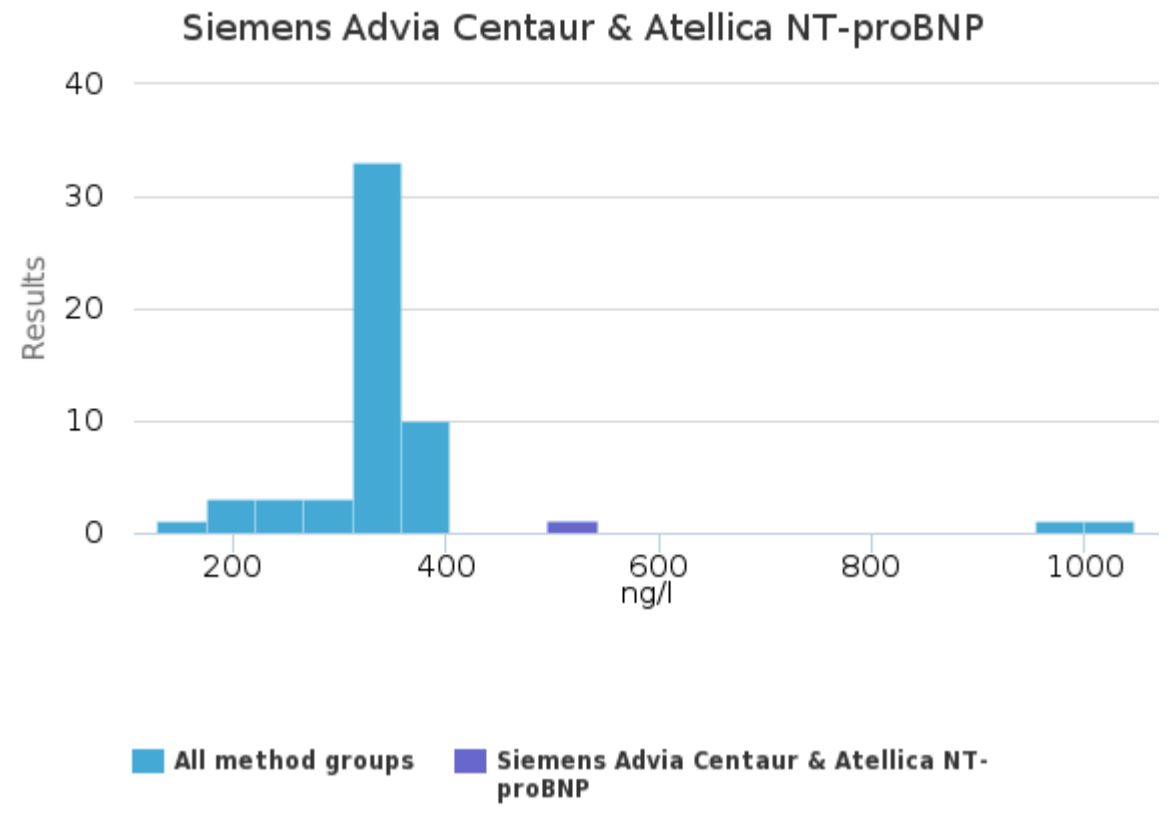
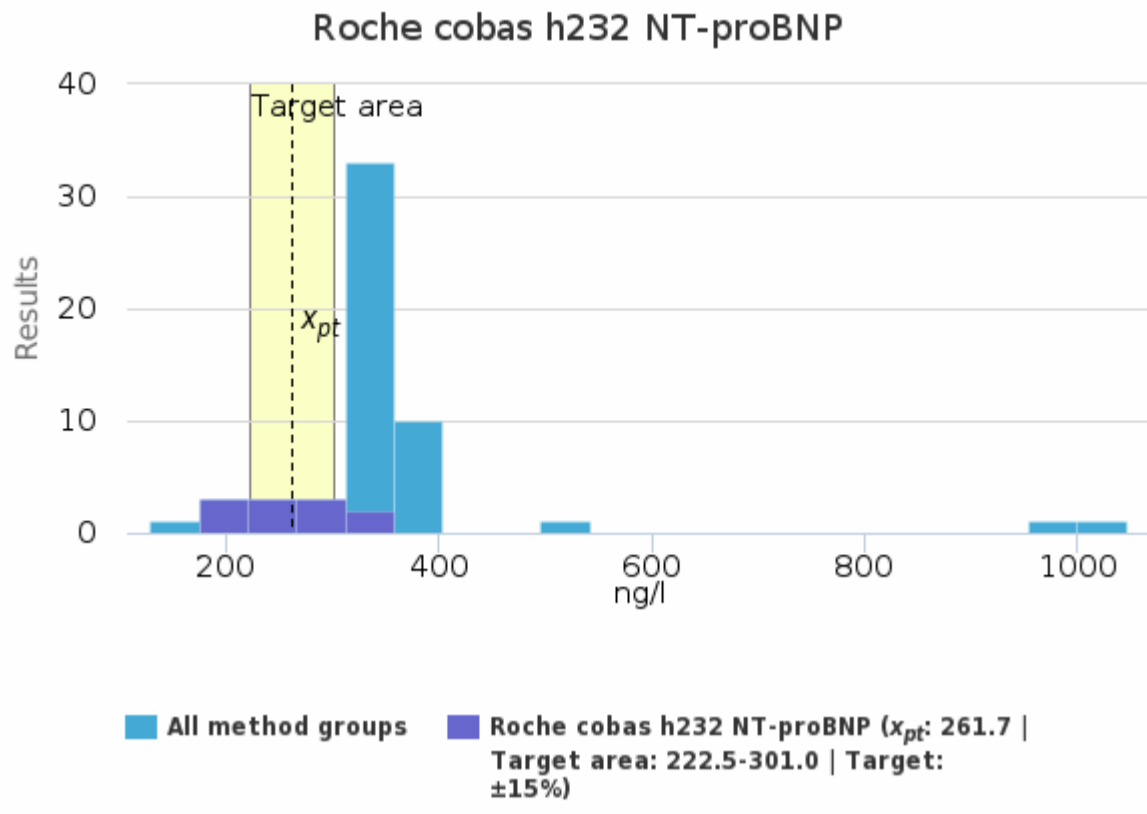
For information on report interpretation and performance evaluation, please see the "EOAS Interpretation guidelines" LabScala User instructions (top right corner ?Help link).

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

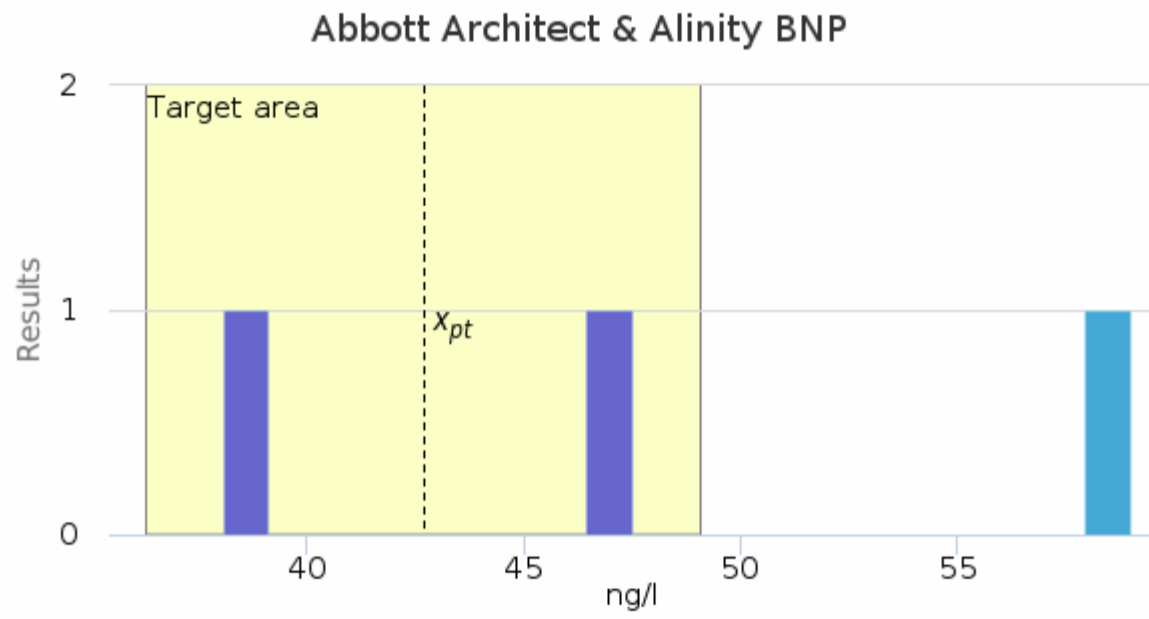




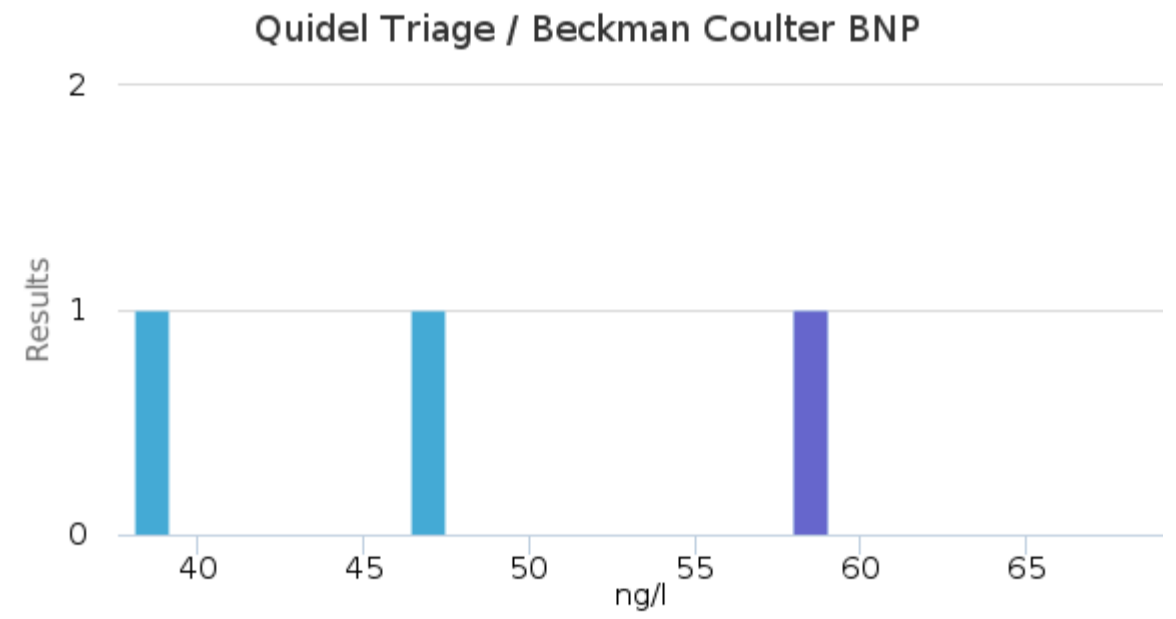
Specimen S001 | BNP, ng/l

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



■ All method groups
 ■ Abbott Architect & Alinity BNP (x_{pt} : 42.7 | Target area: 36.3-49.1 | Target: $\pm 15\%$)

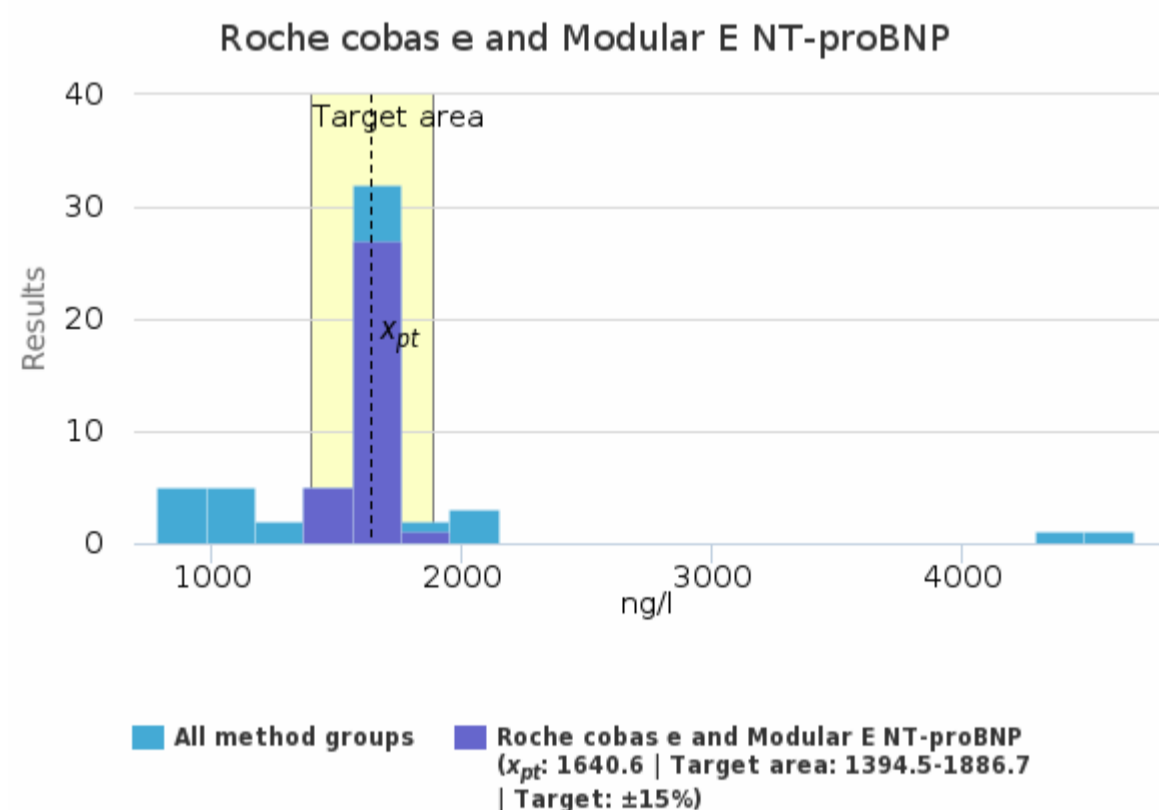
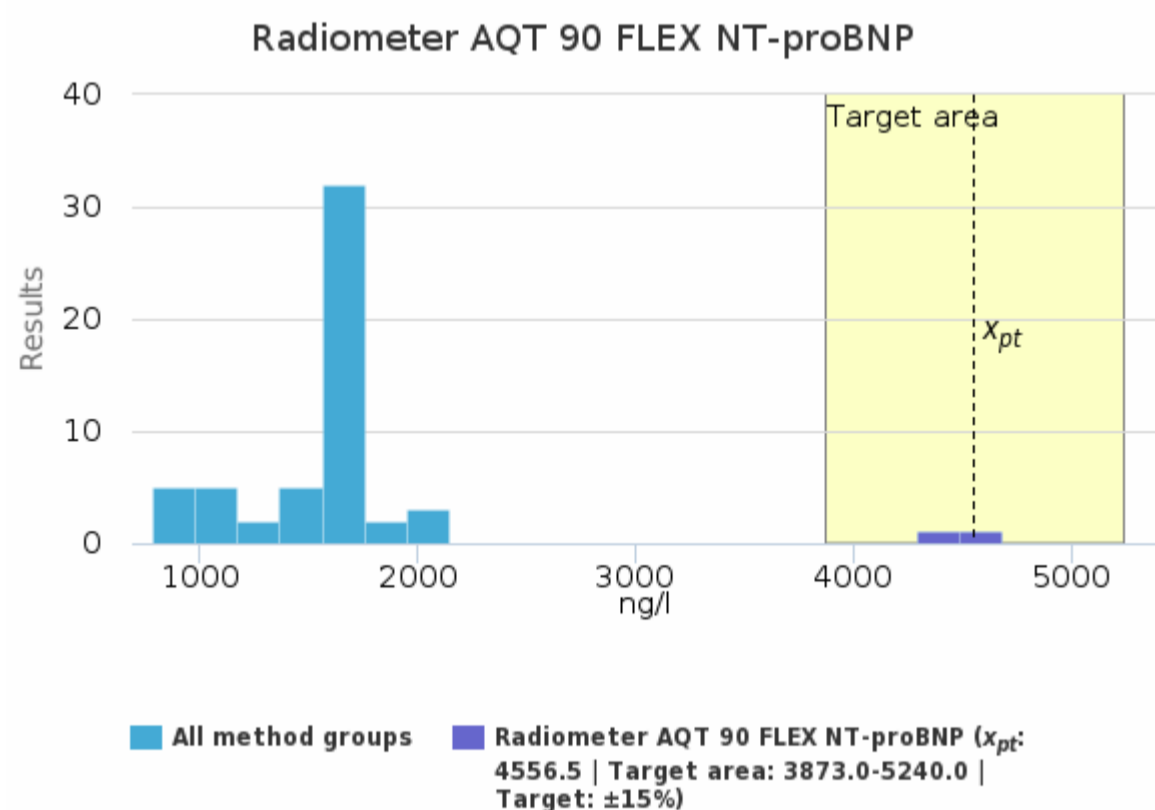
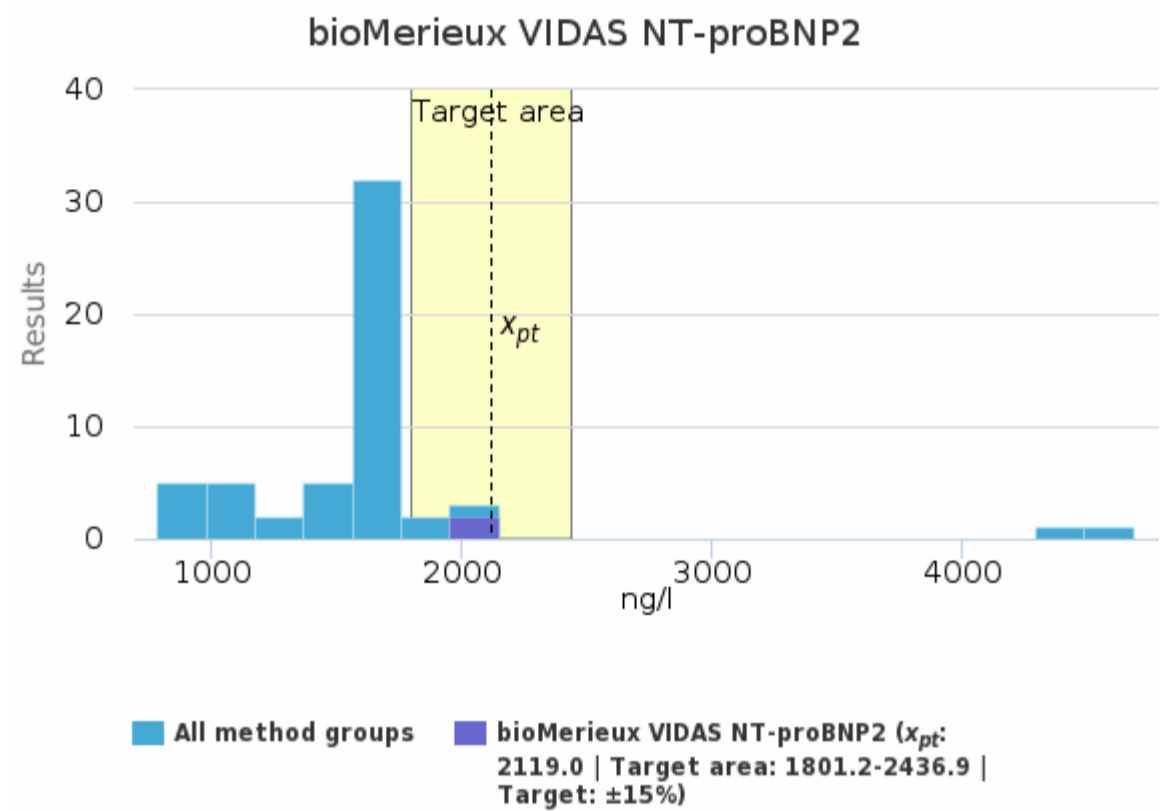
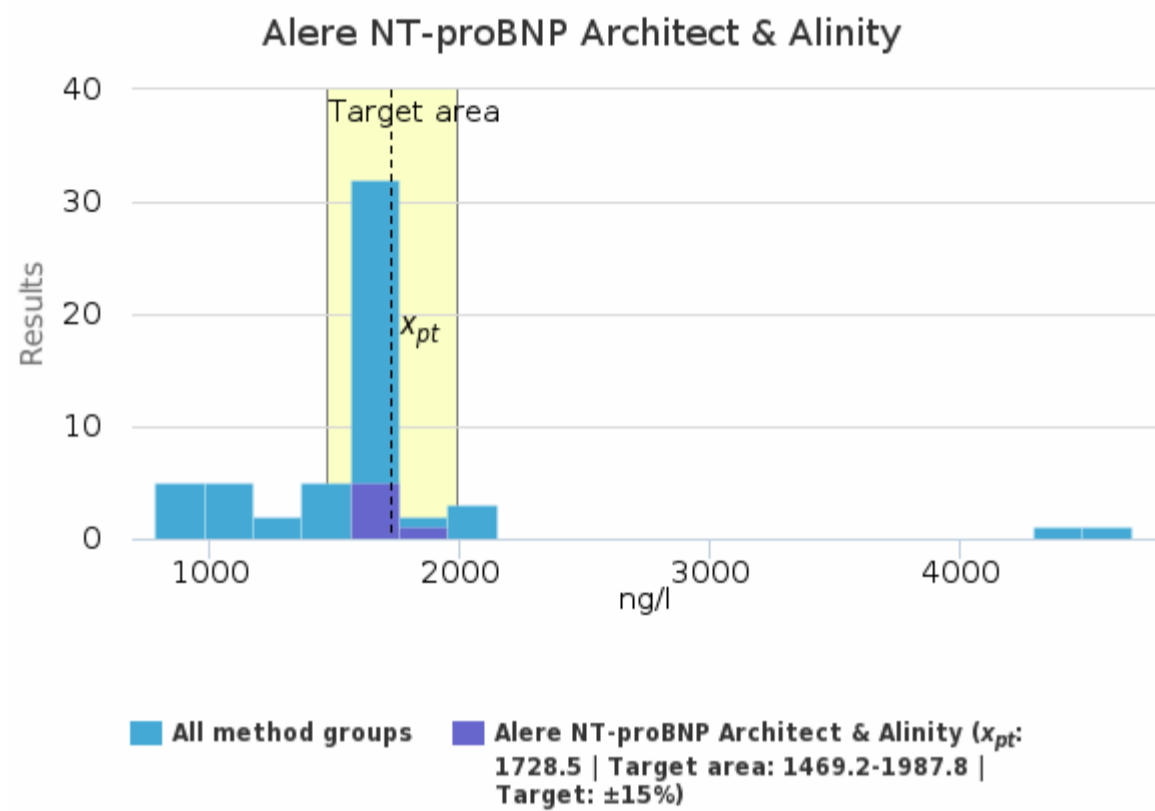


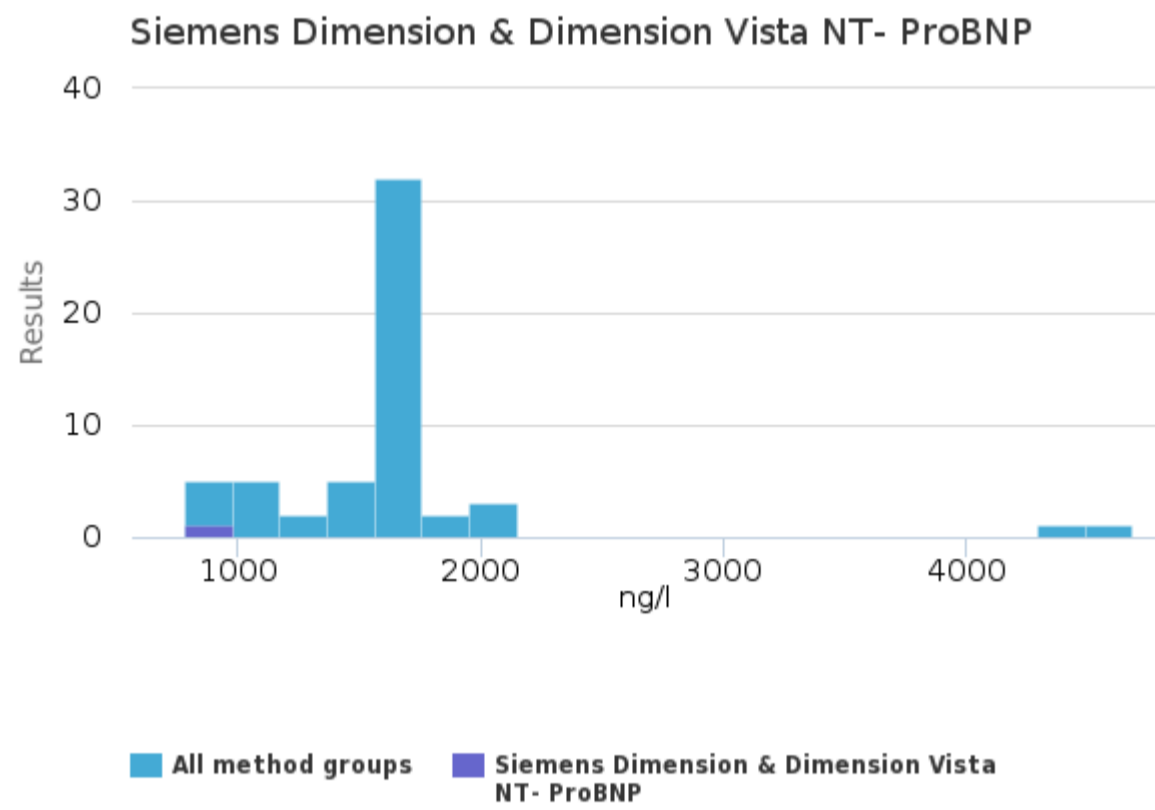
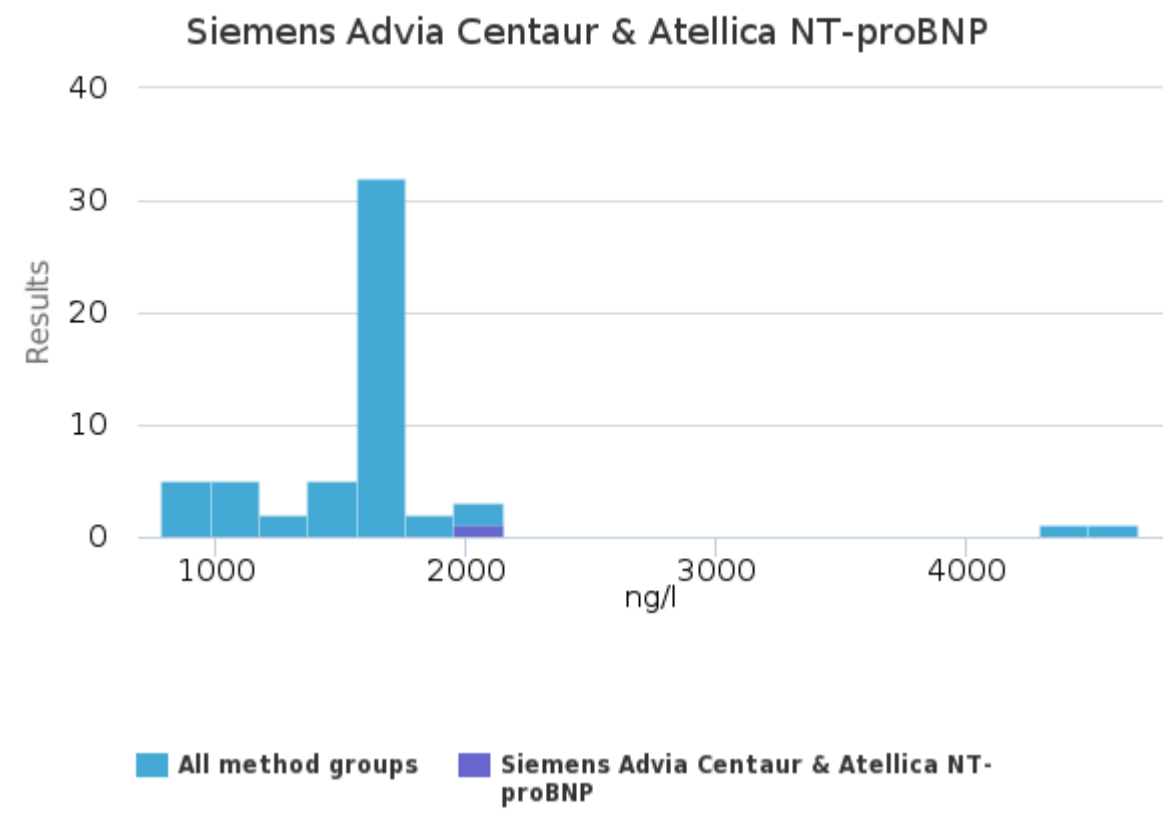
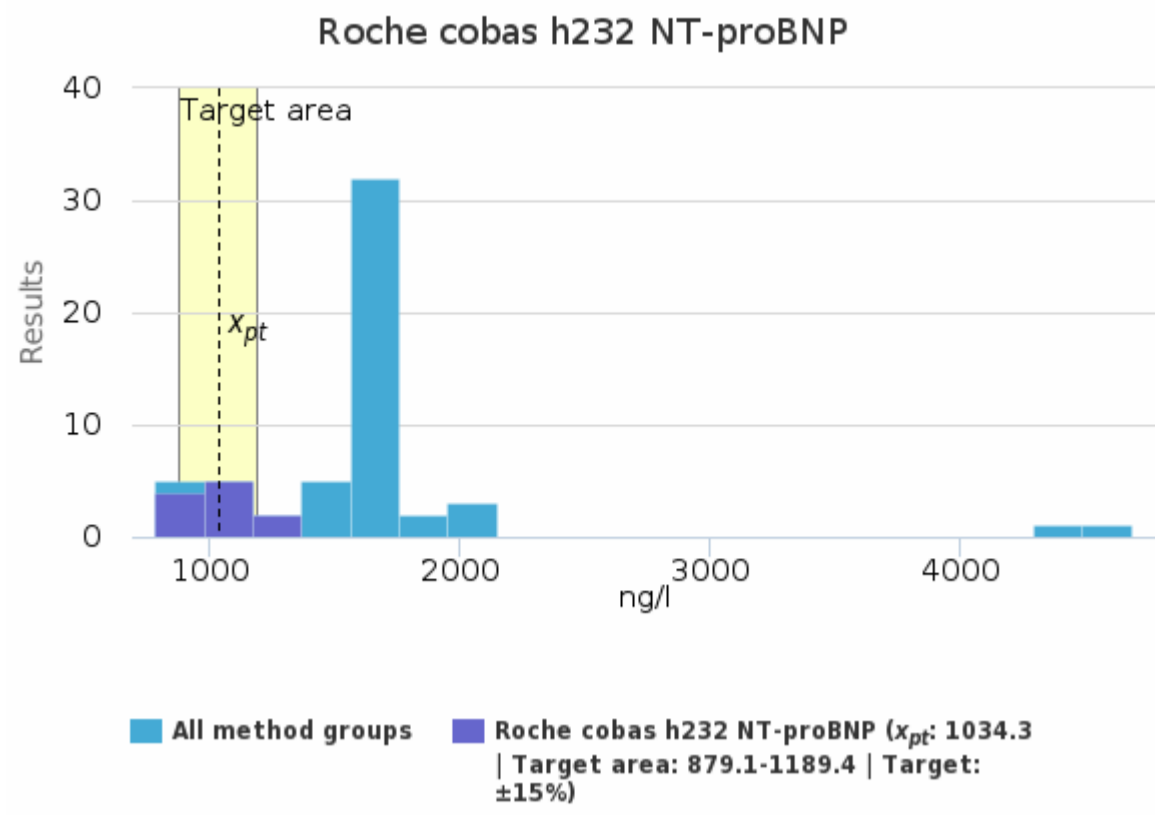
■ All method groups
 ■ Quidel Triage / Beckman Coulter BNP

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

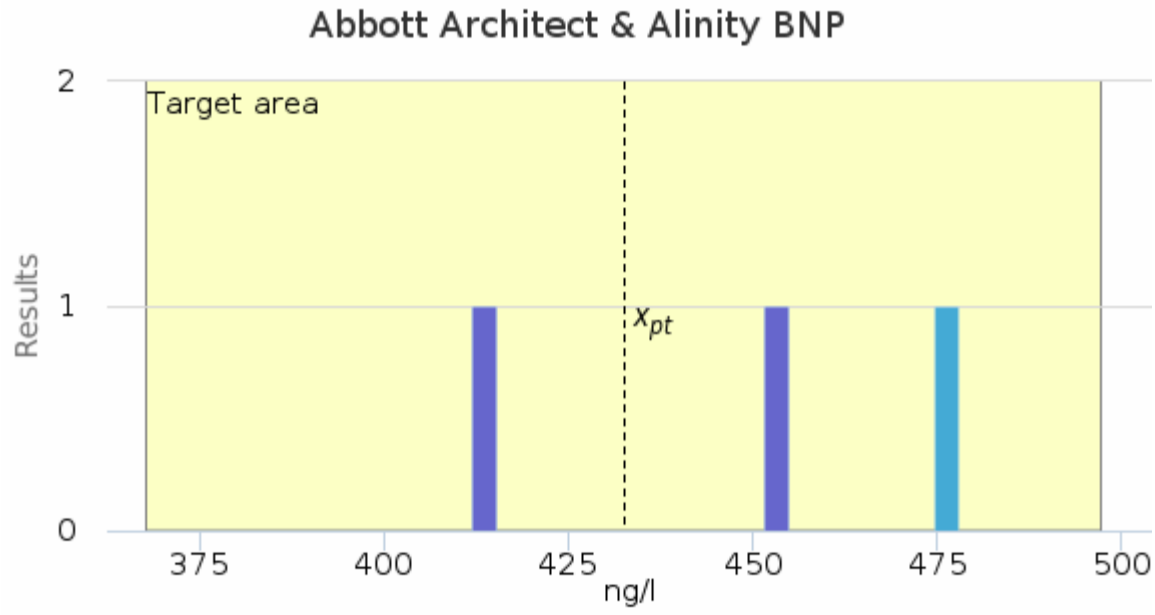




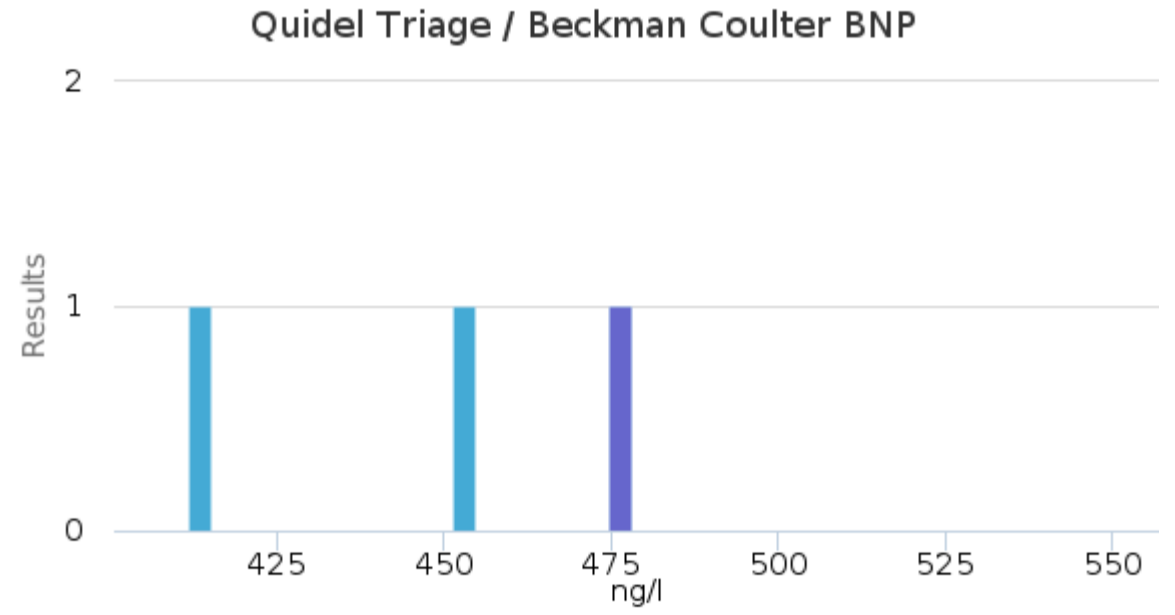
Specimen S002 | BNP, ng/l

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



■ All method groups ■ Abbott Architect & Alinity BNP (x_{pt} : 432.5 | Target area: 367.6-497.4 | Target: $\pm 15\%$)



■ All method groups ■ Quidel Triage / Beckman Coulter BNP

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External Quality Assessment Scheme

Natriuretic peptides 1, B-type, NT-ProBNP 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 processed as ng/L.

Comments – Expert

The NT-proBNP results are divided into seven method-based groups. Two of these method groups have only one participant.

The concentrations of both samples are pathological (while using non-age dependent reference intervals). With elderly people though, concentration of sample S001 may not be heart failure related.

The results obtained varied according to methods and/or analysers in a lesser extent than in previous rounds. The difference between the lowest and highest concentration is about 3-5 -fold, depending on the sample. The variation between the method groups is 17.5% (S001) and 20.5% (S002).

The clearly higher concentration is obtained with Radiometer AQT90 FLEX - group.

Variation within the groups is rather small, less than 5% in most groups. However, variation is higher with Roche Cobas h232 -group.

These samples were analysed also in round 3, 2022. Some improvement has occurred: In the current round, both variation between the method groups and with-in the groups are smaller than in previous round. There were no significant difference between the number of method groups and participants (1/23: 7 method-based groups and 56 participants. 3/22: 8 method-based groups and 52 participants.).

End of report

2023-03-24

FINAL REPORT

Product no. 2690

Samples sent 2023-01-30
Round closed 2023-02-20
Report released 2023-03-24

Request for correction

Typing errors in laboratory's result forms are on laboratory's responsibility. Labquality accepts responsibility only for result processing. Requests must be notified by writing within three weeks from the date of this letter.

Authorized by

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