

External Quality Assessment Scheme

Interleukin 6 Round 1, 2023

Specimens

Please find enclosed 2 lyophilized samples S001 and S002.

Caution

Although these quality control samples are not derived from human blood, they must be handled with the same care as patient samples.

Examinations

IL-6

Storage and use

After arrival the unopened bottles should be stored in a refrigerator (+2...8 °C). Open the vials very carefully, avoiding any loss of material. Add 1 mL of distilled water to both sample bottles. Replace the rubber stoppers and close the vials. Place the vials on a roller for 30 minutes. Do not shake the vial. Once reconstituted, the samples are stable for 4 hours when stored at +2...8 °C in the original vials, or up to 21 days at -20 °C. Analyse as patient samples.

Result reporting

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

S001



S002



2023-02-13

INSTRUCTIONS

Product no. 2281
LQ751823011-012/GB

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

The results should be reported no later than
March 8, 2023

Inquiries

EQA Coordinator
Iida Silvo
iida.silvo@labquality.fi

Labquality Oy

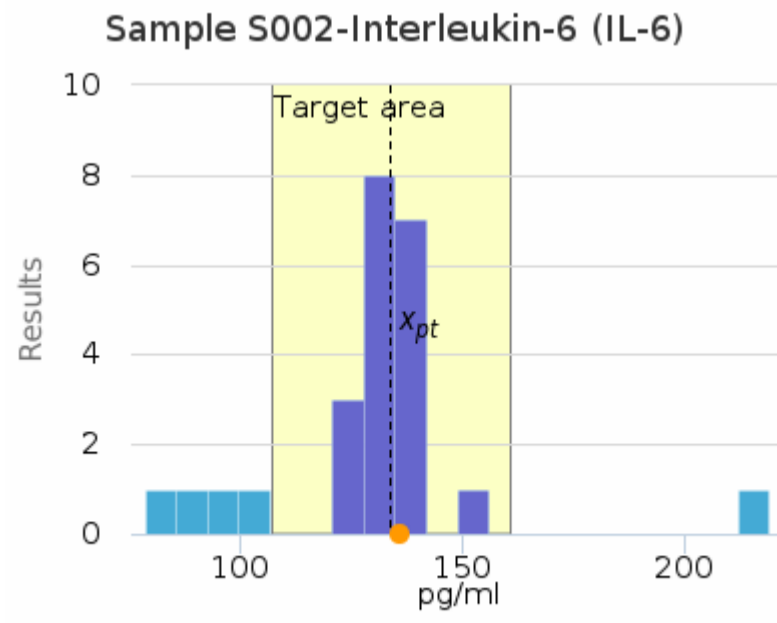
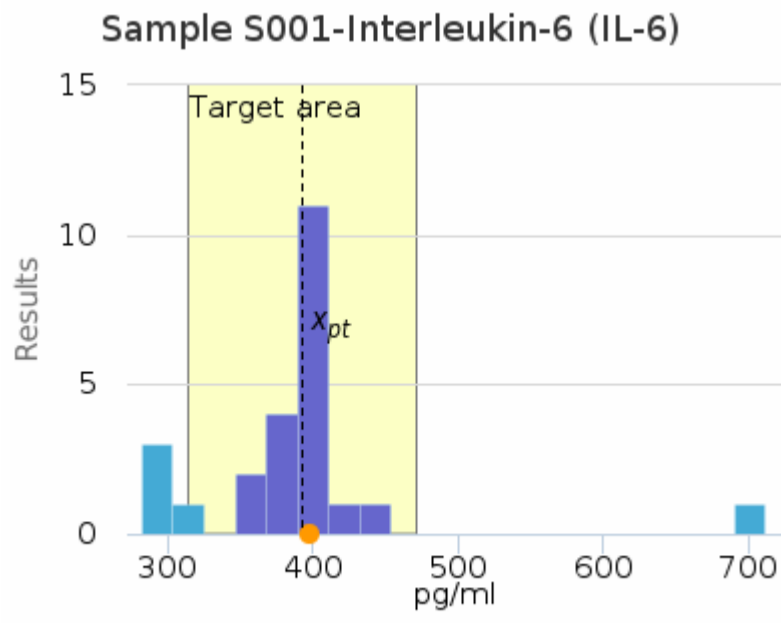
Kumpulantie 15
FI-00520 HELSINKI
Finland

Tel. + 358 9 8566 8200
Fax + 358 9 8566 8280

info@labquality.fi
www.labquality.com



Interleukin-6 (IL-6) | Prawy



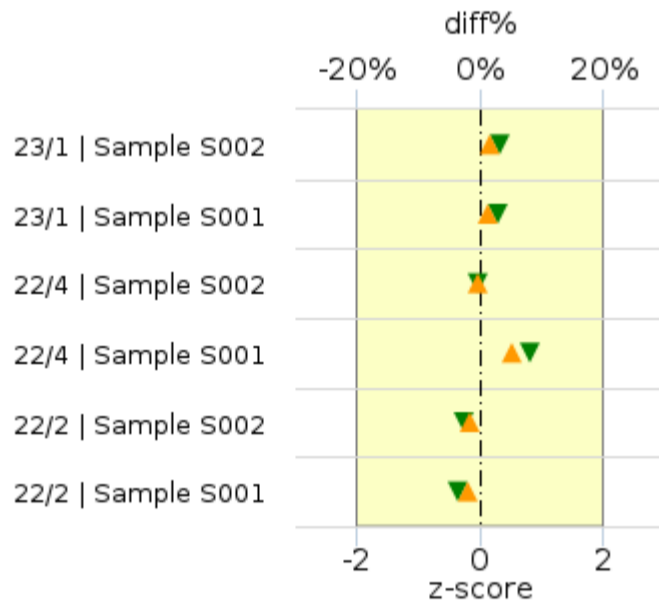
■ All method groups ■ Roche cobas/Elecsys IL-6
● Own result: 398.0 (02.03.2023)
 Diff%: 1.3 | x_{pt} : 392.9
 Target area: 314.4-471.5 | Target: $\pm 20\%$

■ All method groups ■ Roche cobas/Elecsys IL-6
● Own result: 136.0 (02.03.2023)
 Diff%: 1.5 | x_{pt} : 134.0
 Target area: 107.2-160.8 | Target: $\pm 20\%$

| | x_{pt} | sd | SEM | CV% | n |
|--------------------------|-------------|------|-----|------|----|
| Roche cobas/Elecsys IL-6 | 392.9 pg/ml | 18.0 | 4.1 | 4.6 | 19 |
| All methods | 376.3 pg/ml | 40.8 | 8.5 | 10.8 | 24 |

| | x_{pt} | sd | SEM | CV% | n |
|--------------------------|-------------|------|-----|------|----|
| Roche cobas/Elecsys IL-6 | 134.0 pg/ml | 6.1 | 1.4 | 4.6 | 19 |
| All methods | 127.0 pg/ml | 17.0 | 3.5 | 13.4 | 24 |

History



| Round | Sample | x_{pt} | Result | diff% | z-score |
|-------|-------------|----------|--------|-------|---------|
| 23/1 | Sample S002 | 134.0 | 136.0 | 1.5% | 0.33 |
| 23/1 | Sample S001 | 392.9 | 398.0 | 1.3% | 0.28 |
| 22/4 | Sample S002 | 14.9 | 14.9 | -0.2% | -0.02 |
| 22/4 | Sample S001 | 394.1 | 415.0 | 5.3% | 0.81 |
| 22/2 | Sample S002 | 354.8 | 349.0 | -1.6% | -0.27 |
| 22/2 | Sample S001 | 132.4 | 130.0 | -1.8% | -0.37 |

Report info**Participants**

25 participants from 9 countries.

Report info

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

Assigned values (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.

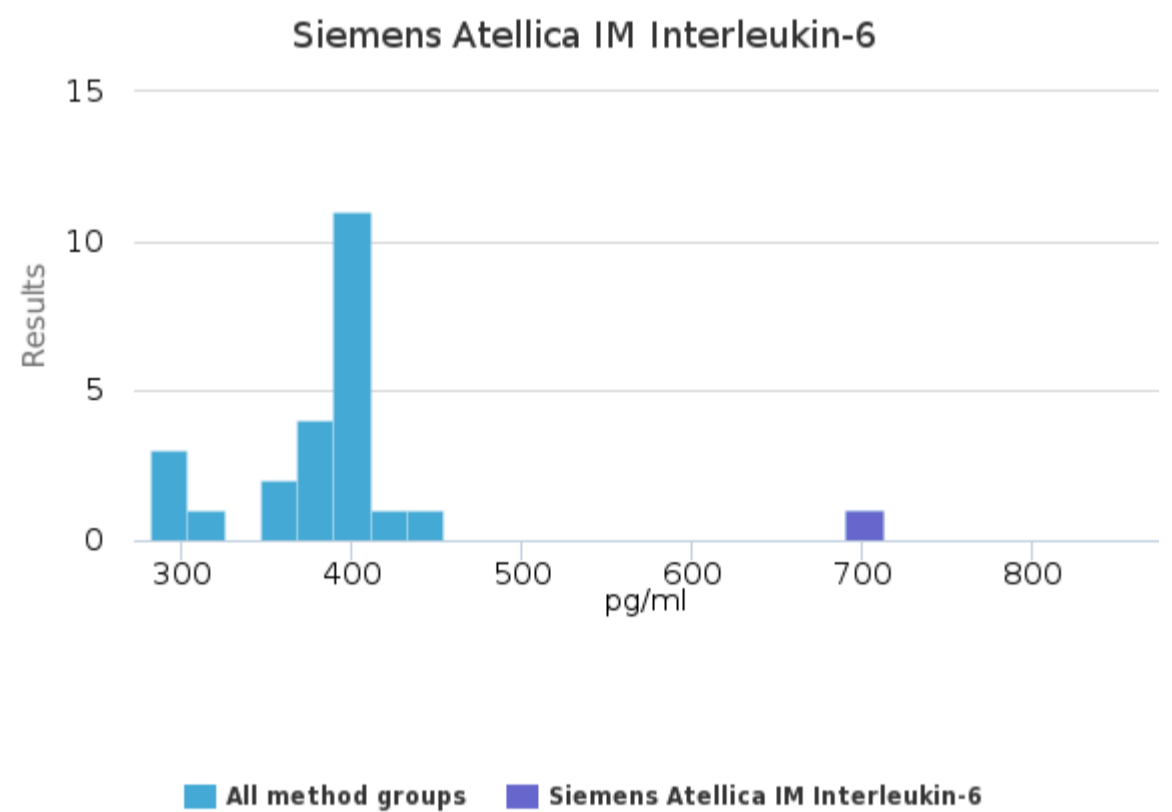
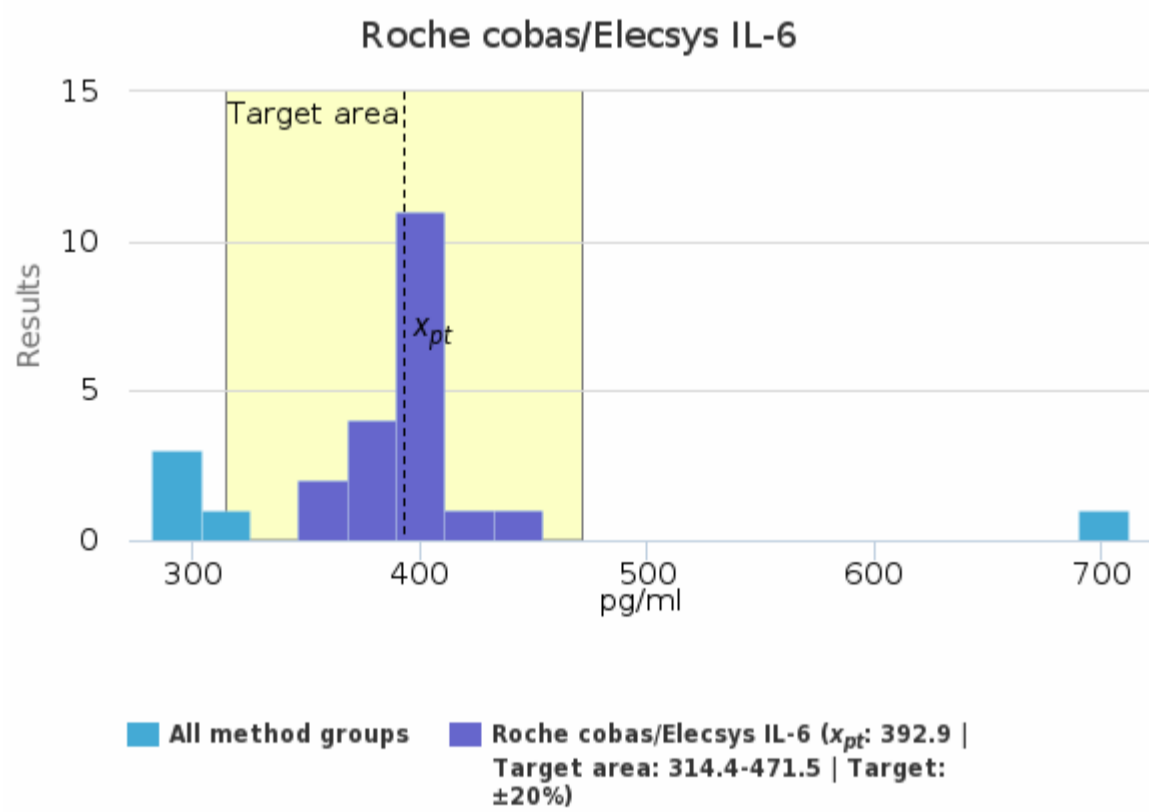
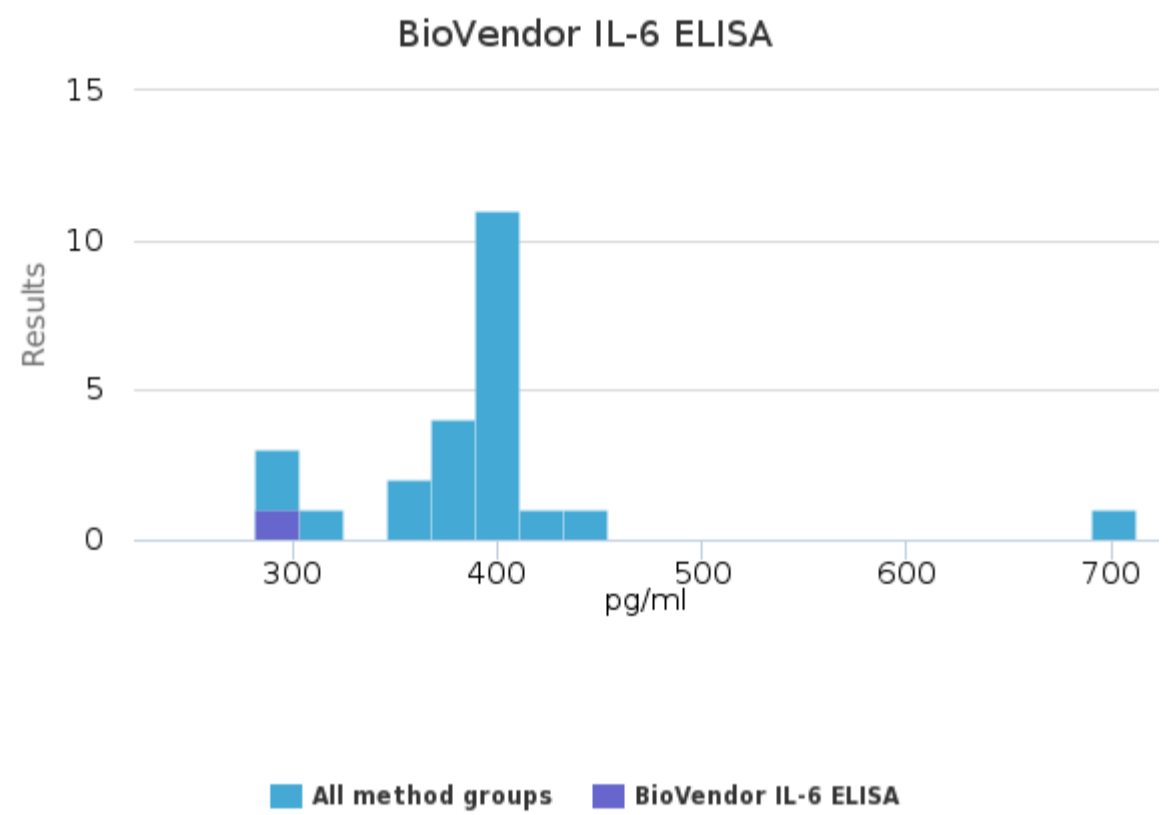
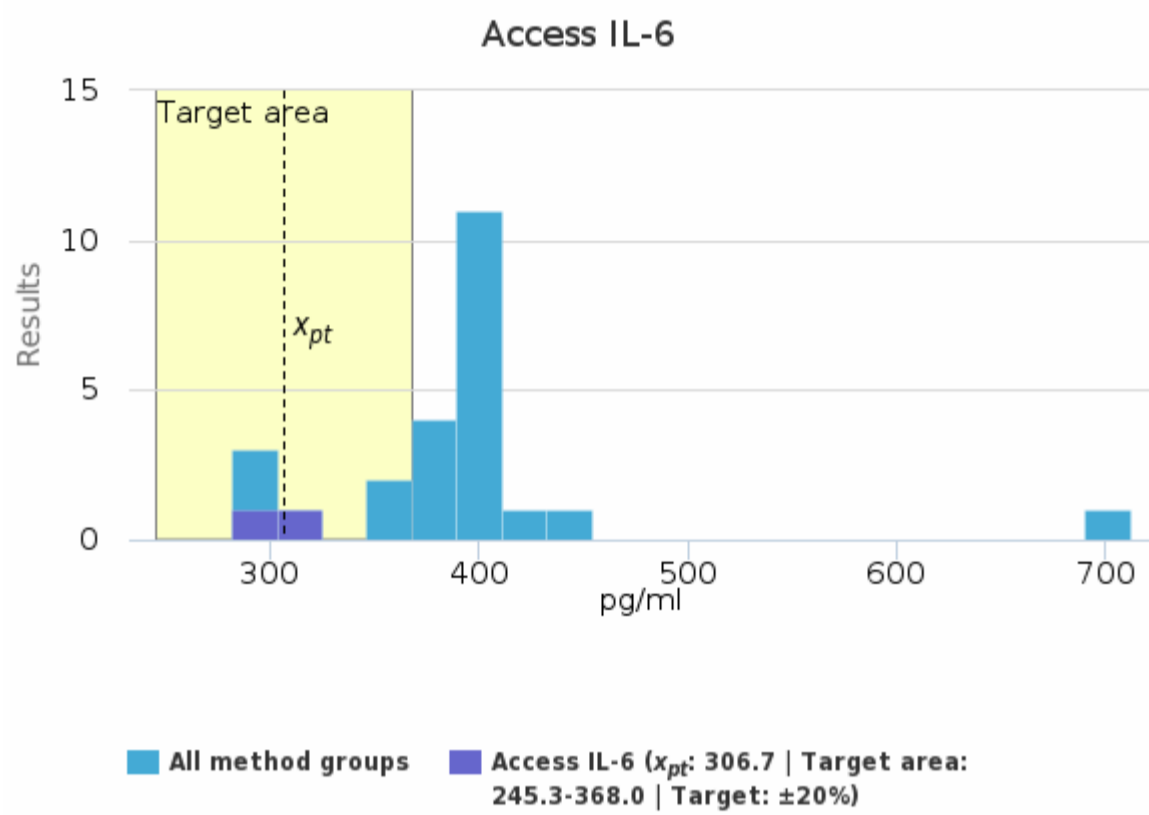
Results reported with $<$ or $>$ -signs cannot be included in the statistics.

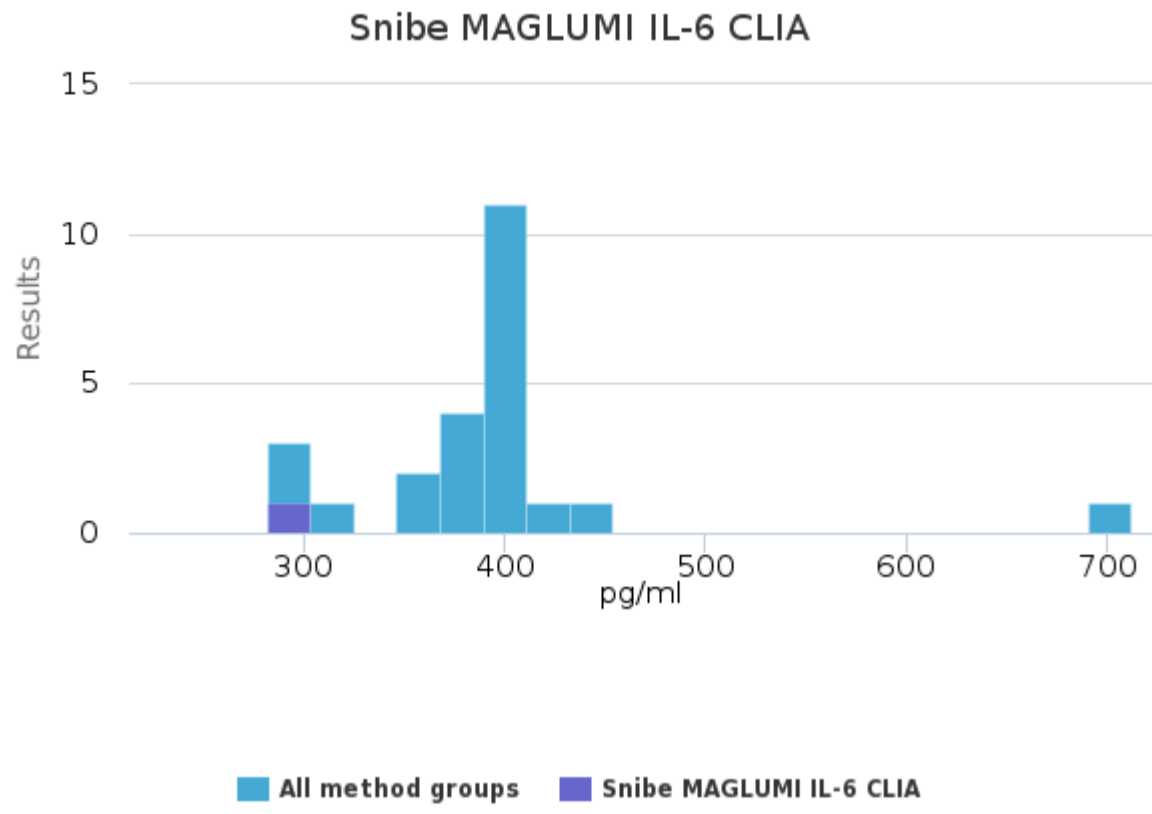
For information on report interpretation and performance evaluation, please see the "EOAS Interpretation guidelines" LabScala User instructions (top right corner ?Help link).

Sample S001 | Interleukin-6 (IL-6), pg/ml

| Methodics | x_{pt} | Median | sd | CV% | SEM | min | max | Outliers | n |
|-----------------------------------|--------------|--------------|-------------|-------------|------------|--------------|--------------|----------|-----------|
| Access IL-6 | 306.7 | 306.7 | 10.2 | 3.3 | 7.2 | 299.5 | 313.8 | - | 2 |
| BioVendor IL-6 ELISA | - | - | - | - | - | 294.0 | 294.0 | - | 1 |
| Roche cobas/Elecsys IL-6 | 392.9 | 393.0 | 18.0 | 4.6 | 4.1 | 362.3 | 436.3 | - | 19 |
| Siemens Atellica IM Interleukin-6 | - | - | - | - | - | 712.0 | 712.0 | - | 1 |
| Snibe MAGLUMI IL-6 CLIA | - | - | - | - | - | 282.1 | 282.1 | - | 1 |
| All | 376.3 | 391.7 | 40.8 | 10.8 | 8.5 | 282.1 | 436.3 | 1 | 24 |

Sample S001 | Interleukin-6 (IL-6), pg/ml| histogram summaries in LabScala

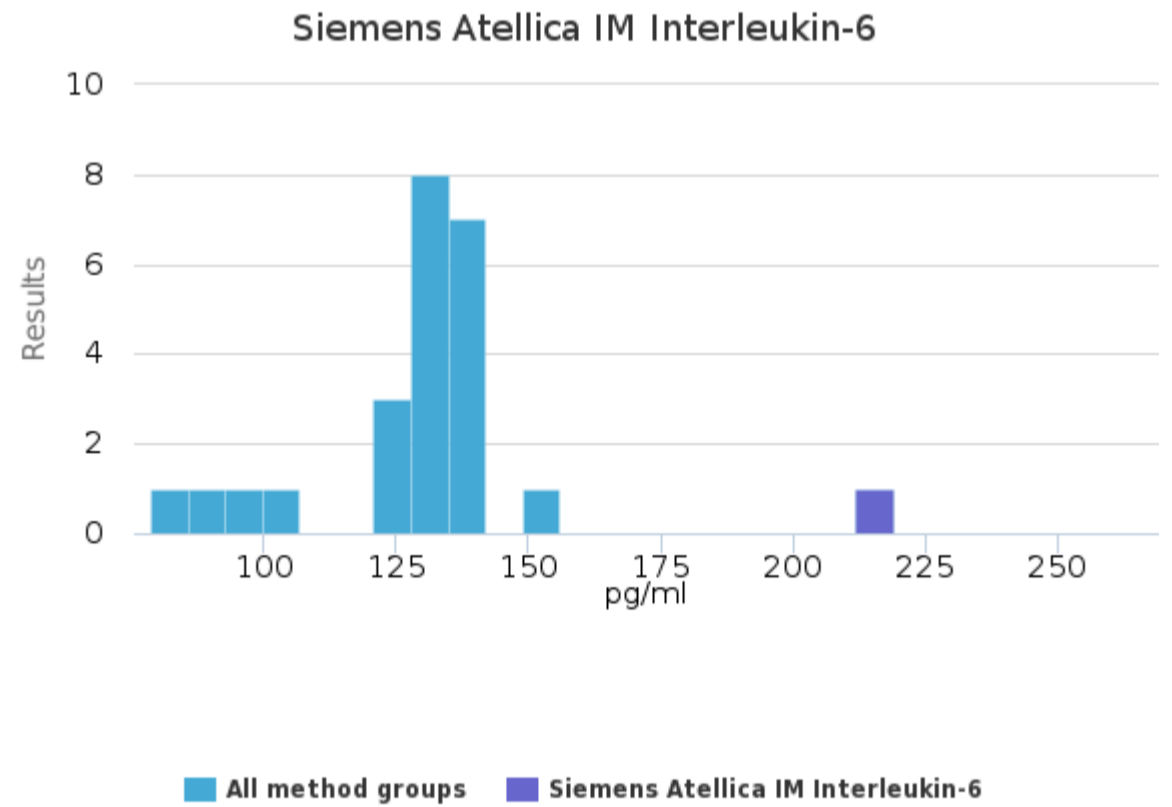
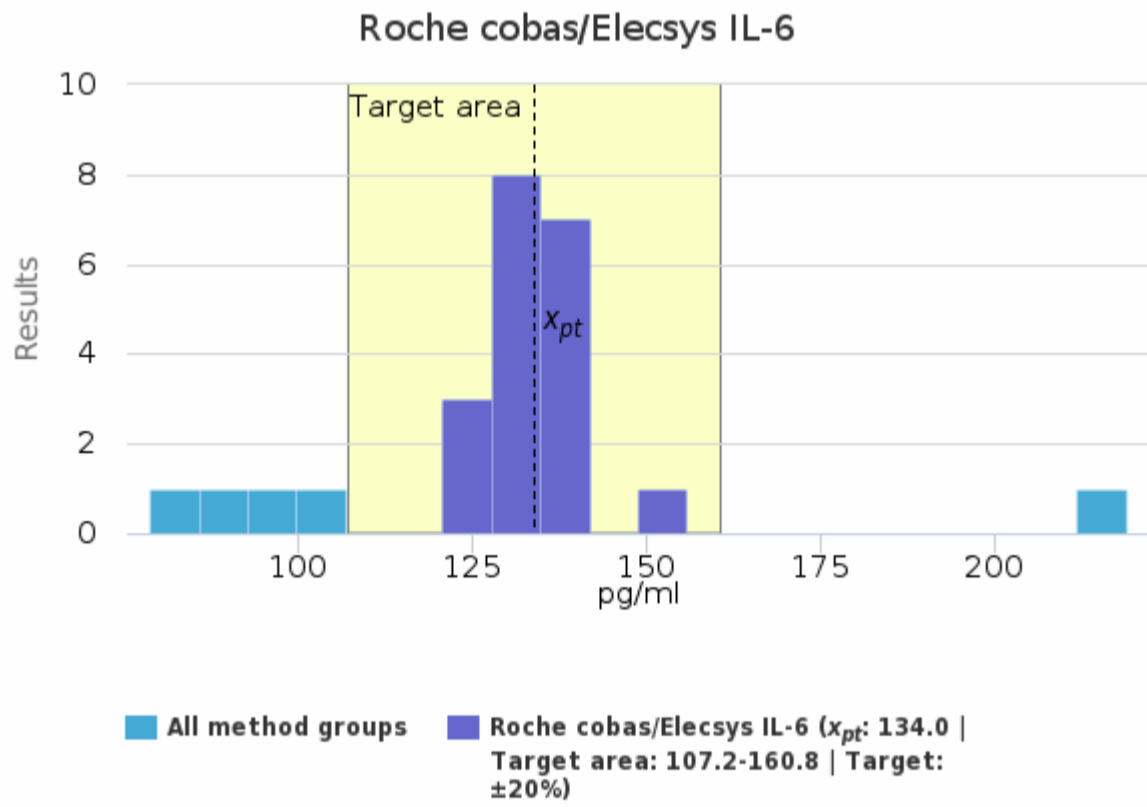
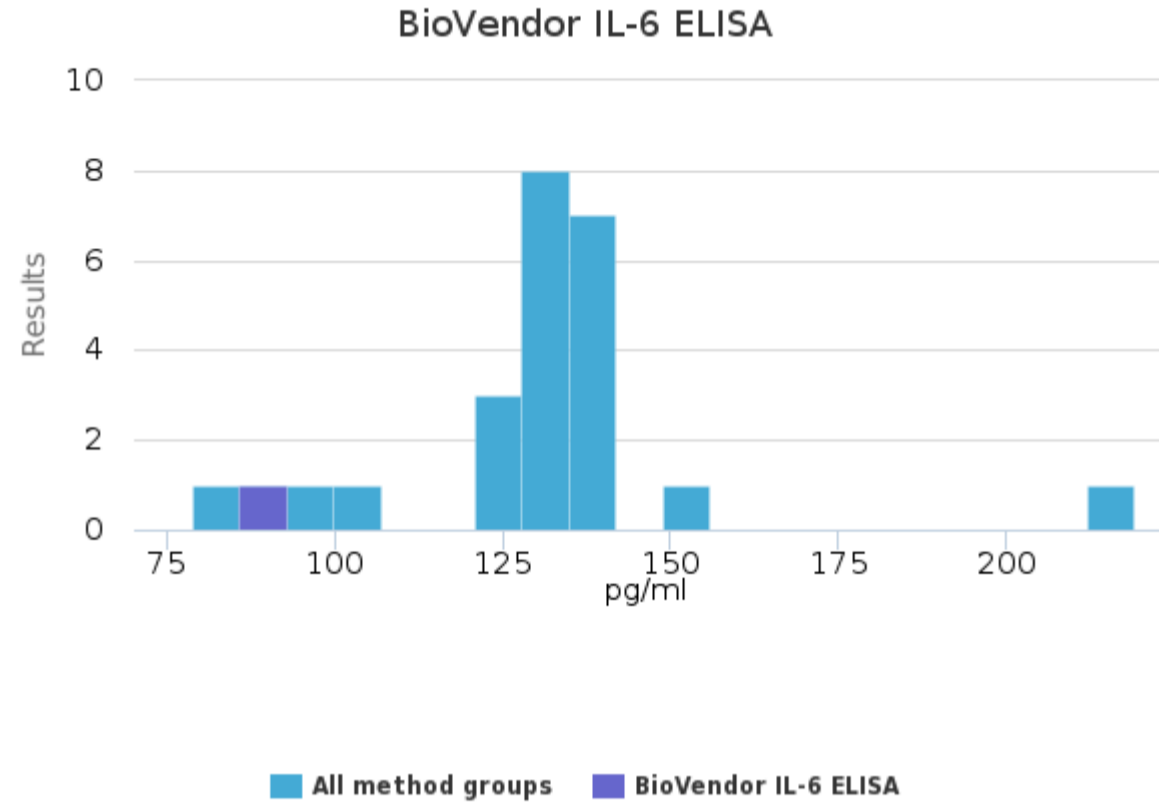
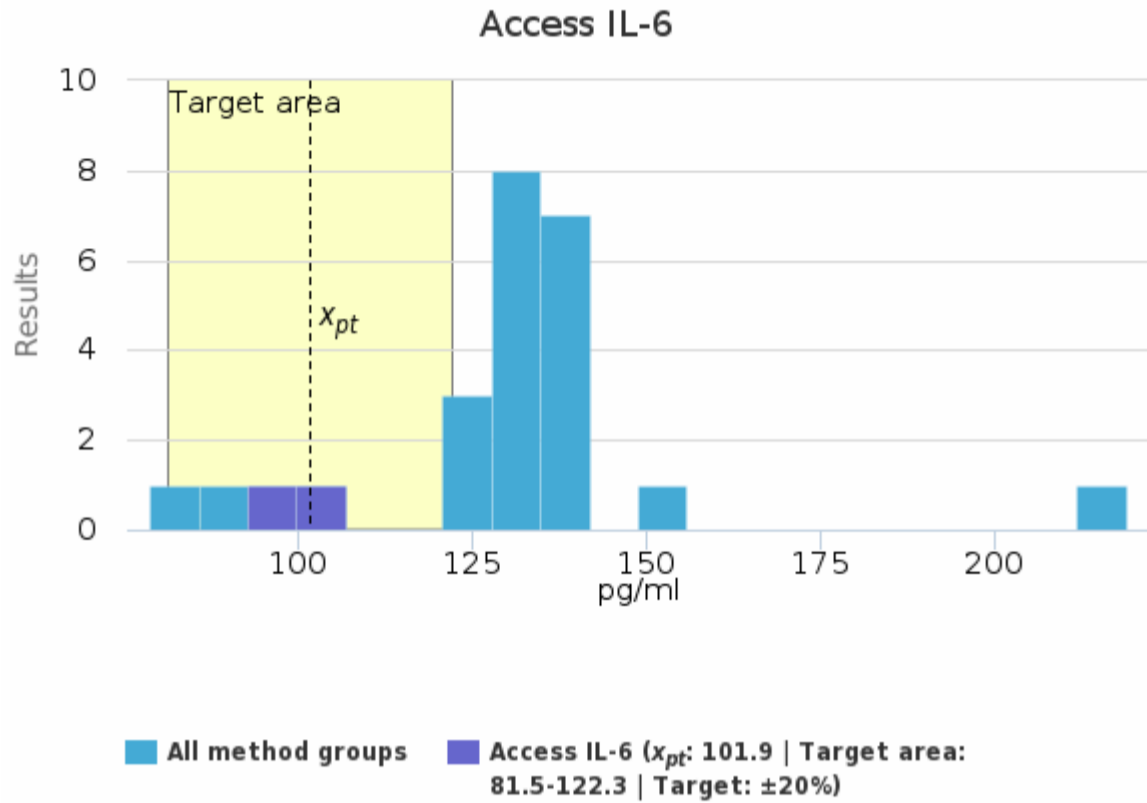


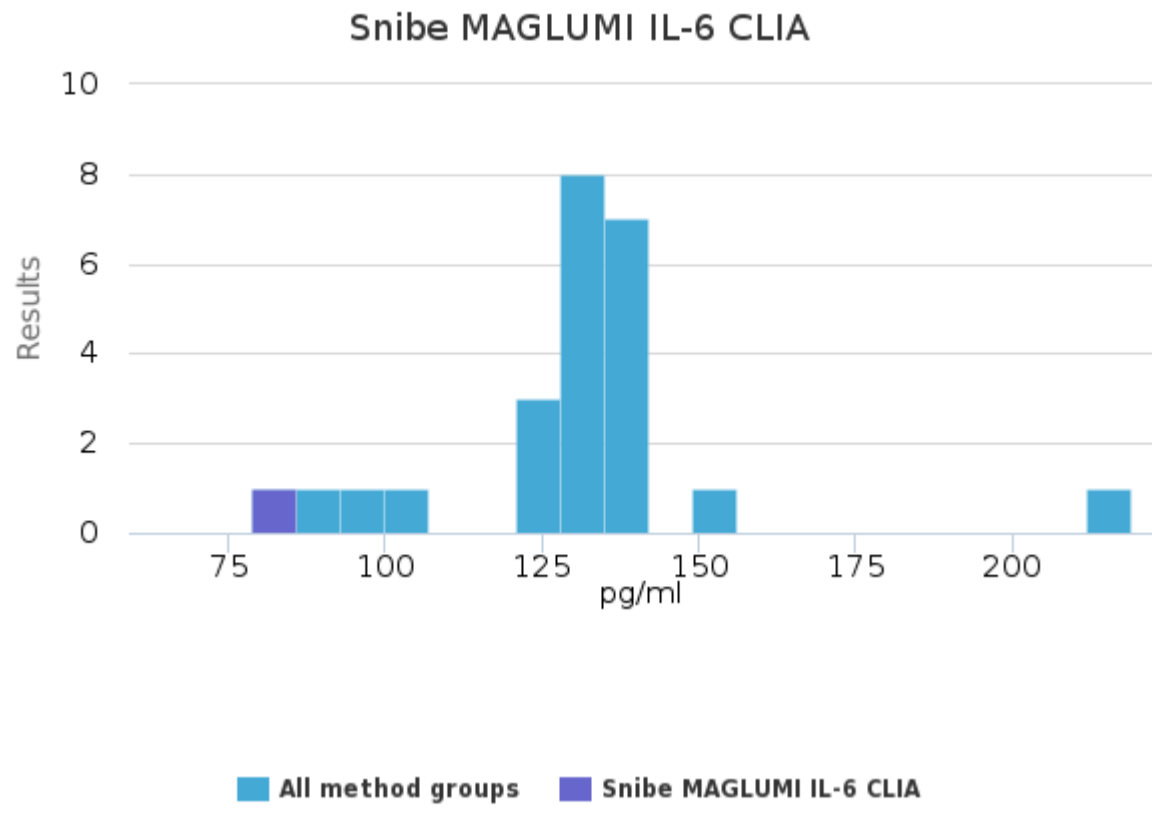


Sample S002 | Interleukin-6 (IL-6), pg/ml

| Methodics | x_{pt} | Median | sd | CV% | SEM | min | max | Outliers | n |
|-----------------------------------|--------------|--------------|-------------|-------------|------------|-------------|--------------|----------|-----------|
| Access IL-6 | 101.9 | 101.9 | 4.4 | 4.3 | 3.1 | 98.8 | 105.0 | - | 2 |
| BioVendor IL-6 ELISA | - | - | - | - | - | 92.9 | 92.9 | - | 1 |
| Roche cobas/Elecsys IL-6 | 134.0 | 133.0 | 6.1 | 4.6 | 1.4 | 123.9 | 149.9 | - | 19 |
| Siemens Atellica IM Interleukin-6 | - | - | - | - | - | 219.0 | 219.0 | - | 1 |
| Snibe MAGLUMI IL-6 CLIA | - | - | - | - | - | 78.9 | 78.9 | - | 1 |
| All | 127.0 | 132.0 | 17.0 | 13.4 | 3.5 | 78.9 | 149.9 | 1 | 24 |

Sample S002 | Interleukin-6 (IL-6), pg/ml | histogram summaries in LabScala





Report info**Participants**

25 participants from 9 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).

External Quality Assessment Scheme

Interleukin 6 Round 1, 2023

Specimens

Samples S001 (LQ751823011) and S002 (LQ751823012) were lyophilized 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 histograms and Numerical Summary reports. It is important to read the Final report first, because it contains important information of the samples and results in each round.

Comments – EQA Coordinator

The sample S001 contained elevated and clinically significant concentration of IL-6 (mean of all results 376.3 pg/mL). The IL-6 level of sample S002 was slightly elevated, the mean of all results was 127.0 pg/mL.

One participant had mixed up the samples and their results have been discarded from target value calculation. The most common method used in the scheme was the Roche method.

The results of the round were consistent within the method groups, the user of the Siemens Atellica IM Interleukin-6 reagent (n=1) obtained approximately twice the results from both samples compared to other methods.

End of report

2023-03-09

FINAL REPORT

Product no. 2281

| | |
|--------------|------------|
| Samples sent | 2023-02-13 |
| Round closed | 2023-03-08 |
| Final report | 2023-03-09 |

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

EQA Coordinator
Iida Silvo
iida.silvo@labquality.fi

Expert

Microbiologist, Kaisa Rantasärkkä
Tyks Clinical Microbiology

Labquality Oy

Kumpulantie 15
FI-00520 HELSINKI
Finland

Tel. + 358 9 8566 8200

Fax + 358 9 8566 8280

info@labquality.fi
www.labquality.com

