External Quality Assessment Schemes www.labquality.fi

### Hemoglobin, analyzers, 4, 2018

### Samples

Samples 001 (S001:LQ747018041) and 002 (S002: LQ747018042) are animal based haemolysed liquid controls (1 mL).

### Warning

Quality control specimens are animal based but they shall be handled with same care as patient samples, i.e. as potential transmitters of serious diseases.

### Sample storage

The determinations should be carried as soon as possible. If this is not possible, store in a refrigerator (at between +2 and +8°C) and analyse as soon as possible. Do not freeze.

### Analysis

The determinations should be carried out in the same way as for patient blood.

- 1 Allow the tube to stand at room temperature for about 15 minutes.
- 2 Mix the specimen by quickly inverting the tube several times, until the suspension appears homogeneous. Do not mix too vigorously, otherwise a foam may form. Do not use mechanical blood mixers.

### Results

The results are returned via Labscala. If you do not find your instrument or reagent in Labscala please contact Labquality. We do not accept results on paper any more.

### Barcodes for the samples

S001:

S002:



### INSTRUCTIONS

Product no. 1002 LQ747018041-042/NL

The shipment includes - the specimens

If the kit is incomplete or contains damaged specimens, please report immediately to the EQA coordinator.

The results shall be in Labscala not later than September 11, 2018. Late result are not accepted.

Inquiries

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### Specimen S001 | Haemoglobin, g/l

Methodics	× <sub>pt</sub>	Median	sd	<b>CV%</b>	SEM	min	max	Outliers	n
ABX Micros, Micros CRP, Pentra	164	164	3	1.6	1	161	167	-	4
Beckman Coulter blood cell analyzers	163	163	<1	<0.1	<1	163	163	-	2
Cell Dyn analyzers	-	-	-	-	-	156	156	-	1
Sysmex blood cell analyzers	163	164	3	1.9	<1	159	170	-	34
All	163	163	3	1.9	<1	156	170	-	41

Specimen S001 | Haemoglobin, g/l| histogram summaries in LabScala

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### Specimen S002 | Haemoglobin, g/l

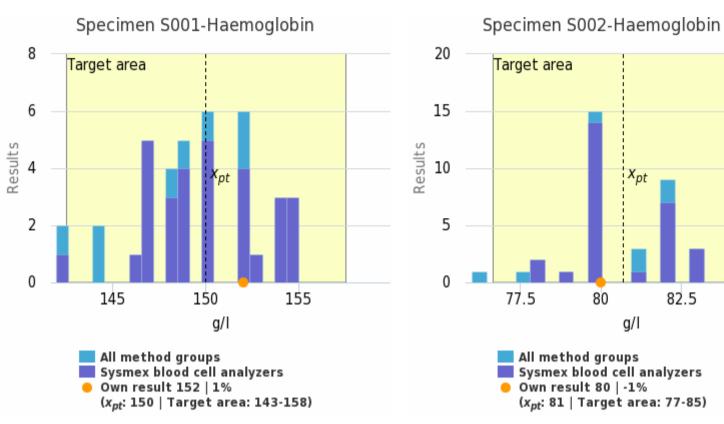
Methodics	x <sub>pt</sub>	Median	sd	CV%	SEM	min	max	Outliers	n
ABX Micros, Micros CRP, Pentra	124	125	3	2.2	1	120	126	-	4
Beckman Coulter blood cell analyzers	122	122	<1	0.6	<1	121	122	-	2
Cell Dyn analyzers	-	-	-	-	-	120	120	-	1
Sysmex blood cell analyzers	122	122	2	1.6	<1	118	125	-	34
All	122	122	2	1.7	<1	118	126	-	41

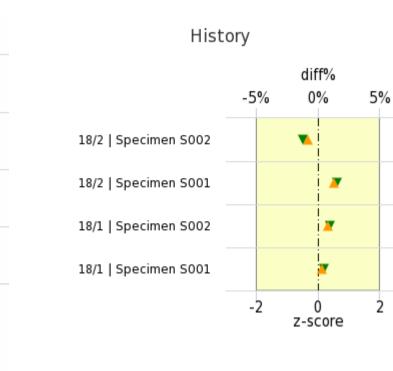
Specimen S002 | Haemoglobin, g/l| histogram summaries in LabScala

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	x <sub>pt</sub>	sd	SEM	CV%	n
Sysmex blood cell analyzers	150 g/l	3	1	2.1	30
All methods	150 g/l	3	1	2.3	38

	x <sub>pt</sub>	sd	SEM	CV%	n
Sysmex blood cell analyzers	81 g/l	1	-	1.7	28
All methods	81 g/l	2	-	2.2	36

80

g/l

x<sub>pt</sub>

82.5

85

Round	Sample	x <sub>pt</sub>	Result	diff%	z-score
18/2	Specimen S002	81	80	-1%	0
18/2	Specimen S001	150	152	1%	1
18/1	Specimen S002	150	151	1%	0
18/1	Specimen S001	104	104	0%	0



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## External Quality Assessment Schemes Haemoglobin for analyzers, 1. 2018

This round was carried out in February 2018. There were participants from 43 laboratories from four countries.

### Sample

The samples (S001: LQ747018011and S002: LQ747018012) were animal based hemolysates, ready for use. The samples were mailed without temperature control packing.

### Interpretation of the results

We have published new kind of reports created in LabScala. You are now able to see also the method specific histograms in the numerical summary. The histograms are seen in Global report in left hand 'Haemoglobin for analyzers, February 1- 2018. The name of the method is listed on top of the histogram picture.

In the history graphs you are able to see your performance graphically both against the assigned value (xpt) and the z-score area of -2 -- +2.

Z-scores are calculated from the results of the EQA round concerned. Assessment of z-scores is based on the following criteria:

 $-2.0 \le z \le 2.0$  is regarded as satisfactory;

-3.0 < z < -2.0 or 2.0 < z < 3.0 is regarded as questionable ('warning signal');

 $z \le -3.0$  or  $z \ge 3.0$  is regarded as unsatisfactory ('action signal').

In case the client's result is the only one in the method group, no target value will be calculated, no target area shown, and no statistics calculated.

The laboratory-specific histograms, numerical summaries and report letters of this round are available on Labquality homepage (www.labquality.fi). Please choose Login to LabScala on the top righthand corner and fill in your laboratory's client code/personal user name and password. Then please choose View Reports.

### Comments

There were 35 Sysmex analyzers, five ABX Pentra analyzers, two Beckman Coulter analyzers and one Cell Dyn analyzers on the round. Results were very uniform in both samples and all results were within the target limits.

### **Final report**

Product no. 1002 LQ747018011/NL LQ747018012/NL

Samples sent 2018-02-12 Round closed 2018-03-01 Report released 2018-03-19

#### The report contains

laboratory specific report (if results were returned)
summary of all results

Inquiries about this round, including questions of possible errors in result processing, should be at Labquality's office before within one month from the date of this letter.

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### End of report

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