LABQUALITY

External Quality Assessment Scheme

Veterinary basic blood count 1,2018

Urgent! Please analyse the samples as soon as possible, preferably on the arrival day or the following day at the latest!

Specimens

Specimens S001 (LQ780018011) (cat) and S002 (LQ780018012) (dog) are whole blood samples. Both samples are ready for use. Specimens should be handled as carefully as patient samples. Open the bottles only before analysis.

Use

Allow the samples to reach room temperature. Mix the samples by inverting the tube several times, until the suspension appears homogeneous.

Storage

If you are not able to analyse the samples on the arrival day, the samples should be transferred immediately to a refrigerator and stored in the dark.

Analysis

Analyse the parameters that are in your laboratory's test selection and report your results on our electronic form at my.labscala.eu. If some parameters are missing, please contact Labquality.

Reporting the results

Fill your results on my.labscala.fi. In case you have forgotten your password, please contact our client services at info@labquality.fi. Instructions on how to use the electronic form can be found on our YouTube channel at https://youtu.be/SyRtvTEV8iY.

Report

Participants who have sent their results by December 12th will receive a laboratory specific report after the scheme is closed.

2018-11-26

Instructions

Product no. 8610
LQ780018011-012 (US)

The shipment includes
- 2 whole blood samples

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

Please note:
The results should be entered no later than **December 12, 2018.**

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Specimen S001 | B -Leuk, x10E9/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	8.1	8.1	0.2	1.9	0.1	8.0	8.2	-	2
BC 5300 Vet (Mindray)	-	-	-	-	-	8.2	8.2	-	1
Mythic 18 (Orphee)	-	-	-	-	-	8.2	8.2	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	7.8	7.8	-	1
XT 2000i (Sysmex)	-	-	-	-	-	6.9	6.9	-	1
All	**7.9**	**8.1**	**0.5**	**6.5**	**0.2**	**6.9**	**8.2**	**-**	**6**

Specimen S001 | B -Leuk, x10E9/l| histogram summaries in LabScala

Specimen S001 | B -Lym, %

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	42.3	42.3	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	34.0	34.0	-	1
Mythic 18 (Orphee)	-	-	-	-	-	9.0	9.0	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	13.0	13.0	-	1
XT 2000i (Sysmex)	-	-	-	-	-	1.2	1.2	-	1
All	**19.9**	**13.0**	**17.4**	**87.6**	**7.8**	**1.2**	**42.3**	**-**	**5**

Specimen S001 | B -Lym, %| histogram summaries in LabScala

Specimen S001 | Lym#, x10E9/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	3.4	3.4	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	2.8	2.8	-	1
Mythic 18 (Orphee)	-	-	-	-	-	0.7	0.7	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	1.0	1.0	-	1
All	**2.0**	**1.9**	**1.3**	**66.5**	**0.7**	**0.7**	**3.4**	**-**	**4**

Specimen S001 | Lym#, x10E9/l| histogram summaries in LabScala

Specimen S001 | B -Mon, %

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	5.8	5.8	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	3.4	3.4	-	1
Mythic 18 (Orphee)	-	-	-	-	-	3.8	3.8	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	4.6	4.6	-	1
XT 2000i (Sysmex)	-	-	-	-	-	1.3	1.3	-	1
All	**3.8**	**3.8**	**1.7**	**44.0**	**0.7**	**1.3**	**5.8**	**-**	**5**

Specimen S001 | B -Mon, %| histogram summaries in LabScala

Specimen S001 | Mon#, x10E9/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	0.5	0.5	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	0.3	0.3	-	1
Mythic 18 (Orphee)	-	-	-	-	-	0.3	0.3	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	0.4	0.4	-	1
All	**0.4**	**0.3**	**<0.1**	**24.4**	**<0.1**	**0.3**	**0.5**	**-**	**4**

Specimen S001 | Mon#, x10E9/l| histogram summaries in LabScala

Specimen S001 | B -Neutr, %

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n

Advia 2120i (Siemens)	-	-	-	-	-	51.7	51.7	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	39.9	39.9	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	49.5	49.5	-	1
XT 2000i (Sysmex)	-	-	-	-	-	4.4	4.4	-	1
All	**36.4**	**44.7**	**21.9**	**60.3**	**11.0**	**4.4**	**51.7**	**-**	**4**

Specimen S001 | B -Neutr, %| histogram summaries in LabScala

Specimen S001 | Neutr#, x10E9/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	4.1	4.1	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	3.3	3.3	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	3.9	3.9	-	1
All	**3.8**	**3.9**	**0.4**	**11.6**	**0.3**	**3.3**	**4.1**	**-**	**3**

Specimen S001 | Neutr#, x10E9/l| histogram summaries in LabScala

Specimen S001 | B -Baso, %

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	0.5	0.5	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	1.4	1.4	-	1
All	**1.0**	**1.0**	**0.6**	**67.0**	**0.5**	**0.5**	**1.4**	**-**	**2**

Specimen S001 | B -Baso, %| histogram summaries in LabScala

Specimen S001 | Baso#, x10E9/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	0.0	0.0	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	0.1	0.1	-	1
All	**0.1**	**0.1**	**<0.1**	**66.0**	**<0.1**	**0.0**	**0.1**	**-**	**2**

Specimen S001 | Baso#, x10E9/l| histogram summaries in LabScala

Specimen S001 | B -Eos, %

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
BC 5300 Vet (Mindray)	-	-	-	-	-	22.7	22.7	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	31.2	31.2	-	1
All	**27.0**	**27.0**	**6.0**	**22.3**	**4.3**	**22.7**	**31.2**	**-**	**2**

Specimen S001 | B -Eos, %| histogram summaries in LabScala

Specimen S001 | Eos#, x10E9/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
BC 5300 Vet (Mindray)	-	-	-	-	-	1.9	1.9	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	2.4	2.4	-	1
All	**2.1**	**2.1**	**0.4**	**18.5**	**0.3**	**1.9**	**2.4**	**-**	**2**

Specimen S001 | Eos#, x10E9/l| histogram summaries in LabScala

Specimen S001 | B -Eryt, x10E12/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	3.17	3.17	1.37	43.3	0.97	2.20	4.14	-	2
BC 5300 Vet (Mindray)	-	-	-	-	-	7.41	7.41	-	1
Mythic 18 (Orphee)	-	-	-	-	-	6.81	6.81	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	8.70	8.70	-	1
XT 2000i (Sysmex)	-	-	-	-	-	7.40	7.40	-	1

All	**6.11**	**7.11**	**2.44**	**39.9**	**1.00**	**2.20**	**8.70**	**-**	**6**

Specimen S001 | B -Eryt, x10E12/l| histogram summaries in LabScala

Specimen S001 | HCT, %

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	10.20	10.20	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	40.20	40.20	-	1
Mythic 18 (Orphee)	-	-	-	-	-	34.80	34.80	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	43.00	43.00	-	1
XT 2000i (Sysmex)	-	-	-	-	-	39.20	39.20	-	1
All	**33.48**	**39.20**	**13.34**	**39.9**	**5.97**	**10.20**	**43.00**	**-**	**5**

Specimen S001 | HCT, %| histogram summaries in LabScala

Specimen S001 | Platelets, --

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
XT 2000i (Sysmex)	-	-	-	-	-	170.00	170.00	-	1
All	**-**	**-**	**-**	**-**	**-**	**170.00**	**170.00**	**-**	**1**

Specimen S001 | Platelets, --| histogram summaries in LabScala

Specimen S001 | B -MCH, pg

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	45.2	45.2	19.9	44.1	14.1	31.1	59.3	-	2
BC 5300 Vet (Mindray)	-	-	-	-	-	17.5	17.5	-	1
Mythic 18 (Orphee)	-	-	-	-	-	20.6	20.6	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	14.1	14.1	-	1
XT 2000i (Sysmex)	-	-	-	-	-	17.1	17.1	-	1
All	**26.6**	**19.1**	**17.1**	**64.1**	**7.0**	**14.1**	**59.3**	**-**	**6**

Specimen S001 | B -MCH, pg| histogram summaries in LabScala

Specimen S001 | E -MCHC, g/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	986.5	986.5	409.4	41.5	289.5	697.0	1276.0	-	2
BC 5300 Vet (Mindray)	-	-	-	-	-	32.3	32.3	-	1
Mythic 18 (Orphee)	-	-	-	-	-	40.2	40.2	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	283.0	283.0	-	1
XT 2000i (Sysmex)	-	-	-	-	-	324.0	324.0	-	1
All	**442.1**	**303.5**	**475.2**	**107.5**	**194.0**	**32.3**	**1276.0**	**-**	**6**

Specimen S001 | E -MCHC, g/l| histogram summaries in LabScala

Specimen S001 | B -MCV, fl

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	45.6	45.6	1.3	2.9	1.0	44.6	46.5	-	2
BC 5300 Vet (Mindray)	-	-	-	-	-	54.3	54.3	-	1
Mythic 18 (Orphee)	-	-	-	-	-	51.1	51.1	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	50.0	50.0	-	1
XT 2000i (Sysmex)	-	-	-	-	-	52.9	52.9	-	1
All	**49.9**	**50.6**	**3.7**	**7.5**	**1.5**	**44.6**	**54.3**	**-**	**6**

Specimen S001 | B -MCV, fl| histogram summaries in LabScala

Specimen S001 | RDW -SD, fl

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
BC 5300 Vet (Mindray)	-	-	-	-	-	45.8	45.8	-	1
Mythic 18 (Orphee)	-	-	-	-	-	36.4	36.4	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	44.5	44.5	-	1
XT 2000i (Sysmex)	-	-	-	-	-	38.2	38.2	-	1
All	**41.2**	**41.4**	**4.6**	**11.2**	**2.3**	**36.4**	**45.8**	**-**	**4**

Specimen S001 | RDW -SD, fl| histogram summaries in LabScala

Specimen S001 | RDW -CV, %

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	19.4	19.4	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	18.8	18.8	-	1
Mythic 18 (Orphee)	-	-	-	-	-	19.1	19.1	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	20.3	20.3	-	1
XT 2000i (Sysmex)	-	-	-	-	-	19.0	19.0	-	1
All	**19.3**	**19.1**	**0.6**	**3.0**	**0.3**	**18.8**	**20.3**	**-**	**5**

Specimen S001 | RDW -CV, %| histogram summaries in LabScala

Specimen S001 | B -PLT, x109E/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	625	625	137	21.9	97	528	722	-	2
BC 5300 Vet (Mindray)	-	-	-	-	-	190	190	-	1
Mythic 18 (Orphee)	-	-	-	-	-	372	372	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	212	212	-	1
XT 2000i (Sysmex)	-	-	-	-	-	170	170	-	1
All	**366**	**292**	**222**	**60.7**	**91**	**170**	**722**	**-**	**6**

Specimen S001 | B -PLT, x109E/l| histogram summaries in LabScala

Specimen S001 | B -HGB, g/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	130	130	<1	0.5	<1	129	130	-	2
Vetscan HM5 (Abaxis)	-	-	-	-	-	122	122	-	1
XT 2000i (Sysmex)	-	-	-	-	-	127	127	-	1
All	**127**	**128**	**4**	**2.8**	**2**	**122**	**130**	**-**	**4**

Specimen S001 | B -HGB, g/l| histogram summaries in LabScala

Specimen S002 | B -Leuk, x10E9/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	12.1	12.1	2.1	17.6	1.5	10.6	13.6	-	2
BC 5300 Vet (Mindray)	-	-	-	-	-	12.9	12.9	-	1
Mythic 18 (Orphee)	-	-	-	-	-	9.8	9.8	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	12.7	12.7	-	1
XT 2000i (Sysmex)	-	-	-	-	-	11.6	11.6	-	1
All	**11.9**	**12.2**	**1.5**	**12.3**	**0.6**	**9.8**	**13.6**	**-**	**6**

Specimen S002 | B -Leuk, x10E9/l| histogram summaries in LabScala

Specimen S002 | B -Lym, %

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	38.7	38.7	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	29.8	29.8	-	1
Mythic 18 (Orphee)	-	-	-	-	-	9.5	9.5	-	1
XT 2000i (Sysmex)	-	-	-	-	-	2.2	2.2	-	1
All	**20.1**	**19.7**	**17.1**	**85.1**	**8.5**	**2.2**	**38.7**	**-**	**4**

Specimen S002 | B -Lym, %| histogram summaries in LabScala

Specimen S002 | Lym#, x10E9/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	4.1	4.1	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	3.8	3.8	-	1
Mythic 18 (Orphee)	-	-	-	-	-	0.9	0.9	-	1
All	**2.9**	**3.8**	**1.8**	**60.2**	**1.0**	**0.9**	**4.1**	**-**	**3**

Specimen S002 | Lym#, x10E9/l| histogram summaries in LabScala

Specimen S002 | B -Mon, %

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	40.9	40.9	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	2.6	2.6	-	1
Mythic 18 (Orphee)	-	-	-	-	-	2.3	2.3	-	1
XT 2000i (Sysmex)	-	-	-	-	-	1.8	1.8	-	1
All	**11.9**	**2.5**	**19.3**	**162.5**	**9.7**	**1.8**	**40.9**	**-**	**4**

Specimen S002 | B -Mon, %| histogram summaries in LabScala

Specimen S002 | Mon#, x10E9/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	4.3	4.3	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	0.3	0.3	-	1
Mythic 18 (Orphee)	-	-	-	-	-	0.2	0.2	-	1
All	**1.6**	**0.3**	**2.3**	**144.3**	**1.3**	**0.2**	**4.3**	**-**	**3**

Specimen S002 | Mon#, x10E9/l| histogram summaries in LabScala

Specimen S002 | B -Neutr, %

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	16.8	16.8	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	46.5	46.5	-	1
XT 2000i (Sysmex)	-	-	-	-	-	7.6	7.6	-	1
All	**23.6**	**16.8**	**20.3**	**86.0**	**11.7**	**7.6**	**46.5**	**-**	**3**

Specimen S002 | B -Neutr, %| histogram summaries in LabScala

Specimen S002 | Neutr#, x10E9/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	1.8	1.8	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	6.0	6.0	-	1
All	**3.9**	**3.9**	**3.0**	**76.9**	**2.1**	**1.8**	**6.0**	**-**	**2**

Specimen S002 | Neutr#, x10E9/l| histogram summaries in LabScala

Specimen S002 | B -Baso, %

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	4.9	4.9	-	1
All	**-**	**-**	**-**	**-**	**-**	**4.9**	**4.9**	**-**	**1**

Specimen S002 | B -Baso, %| histogram summaries in LabScala

Specimen S002 | Baso#, x10E9/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	0.5	0.5	-	1
All	**-**	**-**	**-**	**-**	**-**	**0.5**	**0.5**	**-**	**1**

Specimen S002 | Baso#, x10E9/l| histogram summaries in LabScala

Specimen S002 | B -Eos, %

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	1.2	1.2	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	21.1	21.1	-	1
All	**11.2**	**11.2**	**14.1**	**126.2**	**10.0**	**1.2**	**21.1**	**-**	**2**

Specimen S002 | B -Eos, %| histogram summaries in LabScala

Specimen S002 | Eos#, x10E9/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	0.1	0.1	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	2.7	2.7	-	1
All	**1.4**	**1.4**	**1.8**	**128.5**	**1.3**	**0.1**	**2.7**	**-**	**2**

Specimen S002 | Eos#, x10E9/l| histogram summaries in LabScala

Specimen S002 | B -Eryt, x10E12/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	6.15	6.15	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	6.18	6.18	-	1
Mythic 18 (Orphee)	-	-	-	-	-	5.60	5.60	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	7.00	7.00	-	1
XT 2000i (Sysmex)	-	-	-	-	-	5.74	5.74	-	1
All	**6.13**	**6.15**	**0.55**	**8.9**	**0.24**	**5.60**	**7.00**	**-**	**5**

Specimen S002 | B -Eryt, x10E12/l| histogram summaries in LabScala

Specimen S002 | HCT, %

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	38.40	38.40	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	45.30	45.30	-	1
Mythic 18 (Orphee)	-	-	-	-	-	39.20	39.20	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	50.00	50.00	-	1
XT 2000i (Sysmex)	-	-	-	-	-	38.40	38.40	-	1
All	**42.26**	**39.20**	**5.20**	**12.3**	**2.33**	**38.40**	**50.00**	**-**	**5**

Specimen S002 | HCT, %| histogram summaries in LabScala

Specimen S002 | Platelets, --

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Vetscan HM5 (Abaxis)	-	-	-	-	-	384.00	384.00	-	1
XT 2000i (Sysmex)	-	-	-	-	-	365.00	365.00	-	1
All	**374.50**	**374.50**	**13.44**	**3.6**	**9.50**	**365.00**	**384.00**	**-**	**2**

Specimen S002 | Platelets, --| histogram summaries in LabScala

Specimen S002 | B -MCH, pg

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	24.0	24.0	0.5	2.1	0.4	23.6	24.3	-	2

BC 5300 Vet (Mindray)	-	-	-	-	-	23.6	23.6	-	1
Mythic 18 (Orphee)	-	-	-	-	-	26.1	26.1	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	22.2	22.2	-	1
XT 2000i (Sysmex)	-	-	-	-	-	25.0	25.0	-	1
All	**24.1**	**24.0**	**1.3**	**5.5**	**0.5**	**22.2**	**26.1**	**-**	**6**

Specimen S002 | B -MCH, pg| histogram summaries in LabScala

Specimen S002 | E -MCHC, g/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	386.5	386.5	7.8	2.0	5.5	381.0	392.0	-	2
BC 5300 Vet (Mindray)	-	-	-	-	-	32.3	32.3	-	1
Mythic 18 (Orphee)	-	-	-	-	-	37.2	37.2	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	313.0	313.0	-	1
XT 2000i (Sysmex)	-	-	-	-	-	374.0	374.0	-	1
All	**254.9**	**343.5**	**172.7**	**67.8**	**70.5**	**32.3**	**392.0**	**-**	**6**

Specimen S002 | E -MCHC, g/l| histogram summaries in LabScala

Specimen S002 | B -MCV, fl

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	62.0	62.0	<0.1	<0.1	<0.1	62.0	62.0	-	2
BC 5300 Vet (Mindray)	-	-	-	-	-	73.2	73.2	-	1
Mythic 18 (Orphee)	-	-	-	-	-	70.0	70.0	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	71.0	71.0	-	1
XT 2000i (Sysmex)	-	-	-	-	-	66.9	66.9	-	1
All	**67.5**	**68.5**	**4.7**	**7.0**	**1.9**	**62.0**	**73.2**	**-**	**6**

Specimen S002 | B -MCV, fl| histogram summaries in LabScala

Specimen S002 | RDW -SD, fl

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
BC 5300 Vet (Mindray)	-	-	-	-	-	48.3	48.3	-	1
Mythic 18 (Orphee)	-	-	-	-	-	44.4	44.4	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	55.5	55.5	-	1
XT 2000i (Sysmex)	-	-	-	-	-	52.7	52.7	-	1
All	**50.2**	**50.5**	**4.9**	**9.7**	**2.4**	**44.4**	**55.5**	**-**	**4**

Specimen S002 | RDW -SD, fl| histogram summaries in LabScala

Specimen S002 | RDW -CV, %

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	-	-	-	-	-	18.4	18.4	-	1
BC 5300 Vet (Mindray)	-	-	-	-	-	16.0	16.0	-	1
Mythic 18 (Orphee)	-	-	-	-	-	17.6	17.6	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	18.0	18.0	-	1
XT 2000i (Sysmex)	-	-	-	-	-	19.4	19.4	-	1
All	**17.9**	**18.0**	**1.2**	**7.0**	**0.6**	**16.0**	**19.4**	**-**	**5**

Specimen S002 | RDW -CV, %| histogram summaries in LabScala

Specimen S002 | B -PLT, x109E/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	433	433	33	7.5	23	410	456	-	2
BC 5300 Vet (Mindray)	-	-	-	-	-	411	411	-	1
Mythic 18 (Orphee)	-	-	-	-	-	491	491	-	1
Vetscan HM5 (Abaxis)	-	-	-	-	-	384	384	-	1
XT 2000i (Sysmex)	-	-	-	-	-	365	365	-	1

All	**420**	**411**	**47**	**11.1**	**19**	**365**	**491**	**-**	**6**

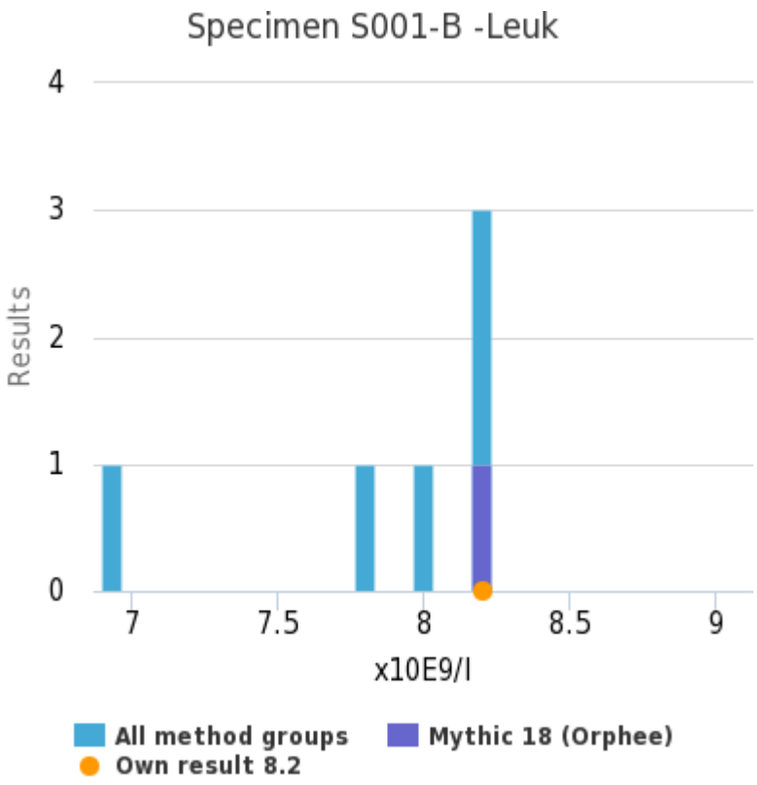
Specimen S002 | B -PLT, x109E/l| histogram summaries in LabScala

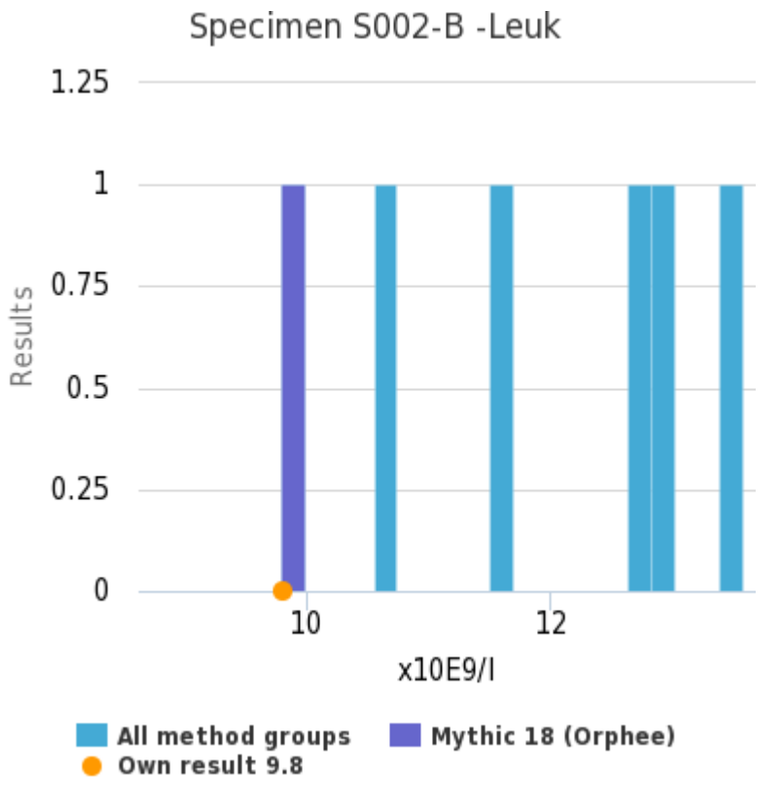
Specimen S002 | B -HGB, g/l

Methodics	x_{pt}	Median	sd	CV%	SEM	min	max	Outliers	n
Advia 2120i (Siemens)	148	148	2	1.4	2	146	149	-	2
Vetscan HM5 (Abaxis)	-	-	-	-	-	155	155	-	1
XT 2000i (Sysmex)	-	-	-	-	-	143	143	-	1
All	**148**	**148**	**5**	**3.5**	**3**	**143**	**155**	**-**	**4**

Specimen S002 | B -HGB, g/l| histogram summaries in LabScala

B -Leuk |1

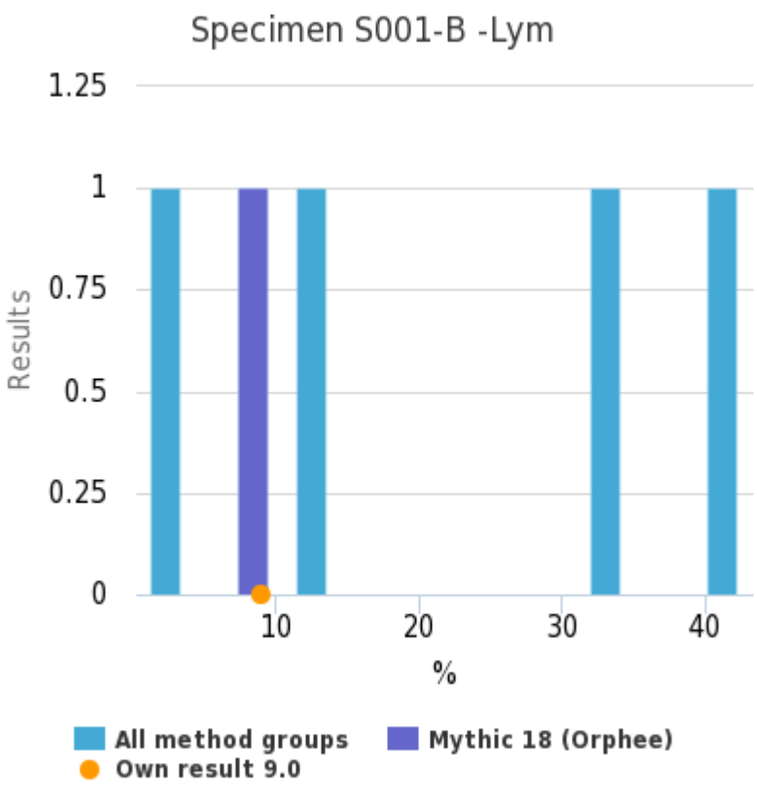


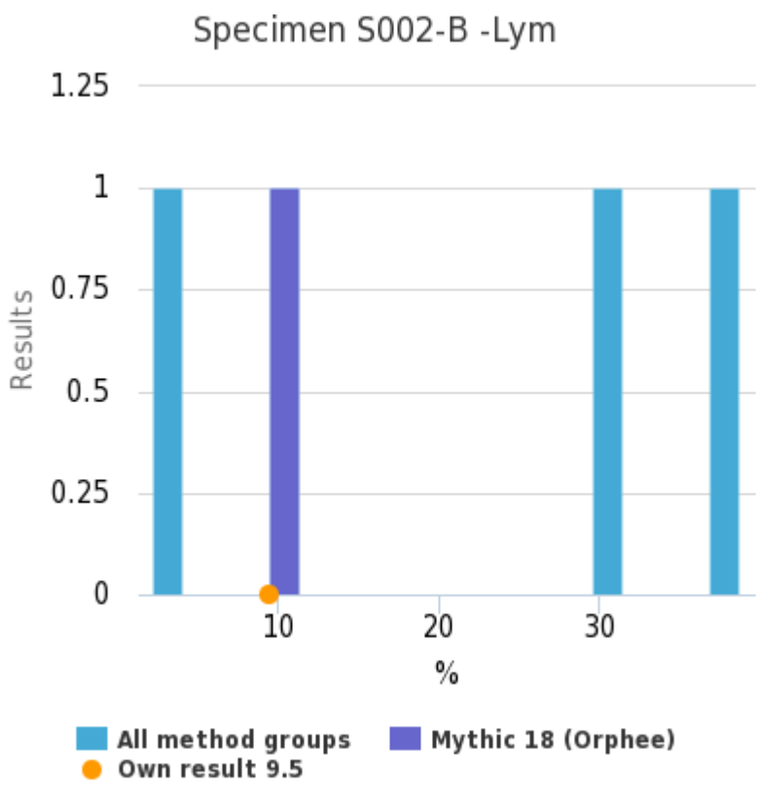


	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	7.9 x10E9/l	0.5	0.2	6.5	6

	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	11.9 x10E9/l	1.5	0.6	12.3	6

B -Lym |1

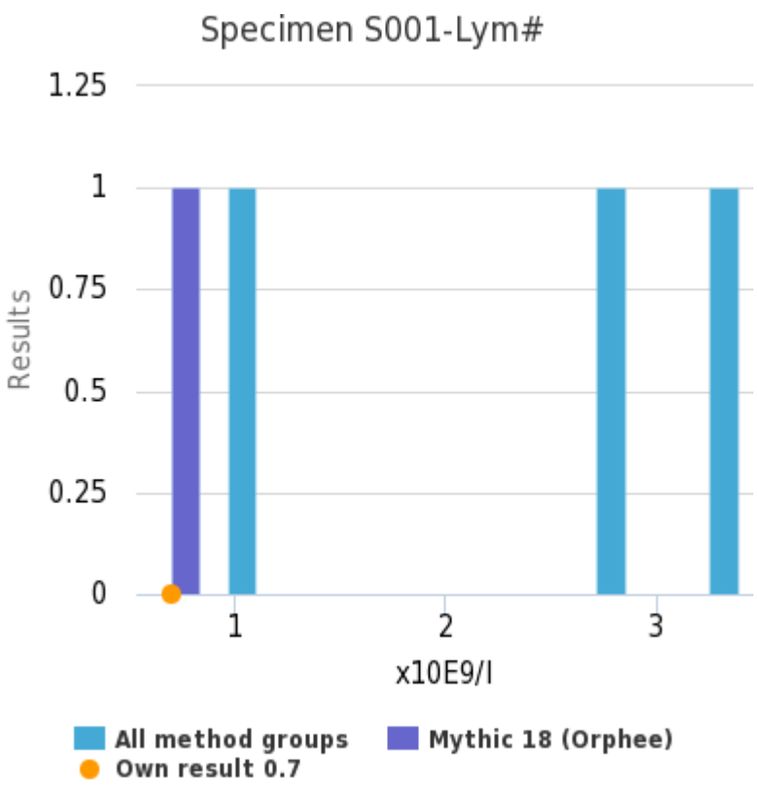


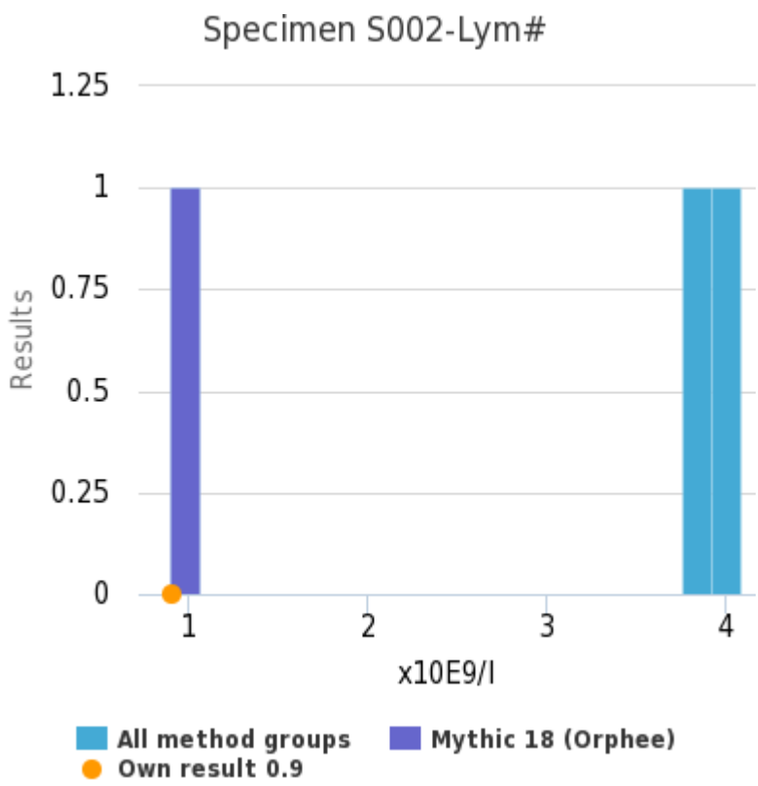


	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	19.9 %	17.4	7.8	87.6	5

	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	20.1 %	17.1	8.5	85.1	4

Lym# |1

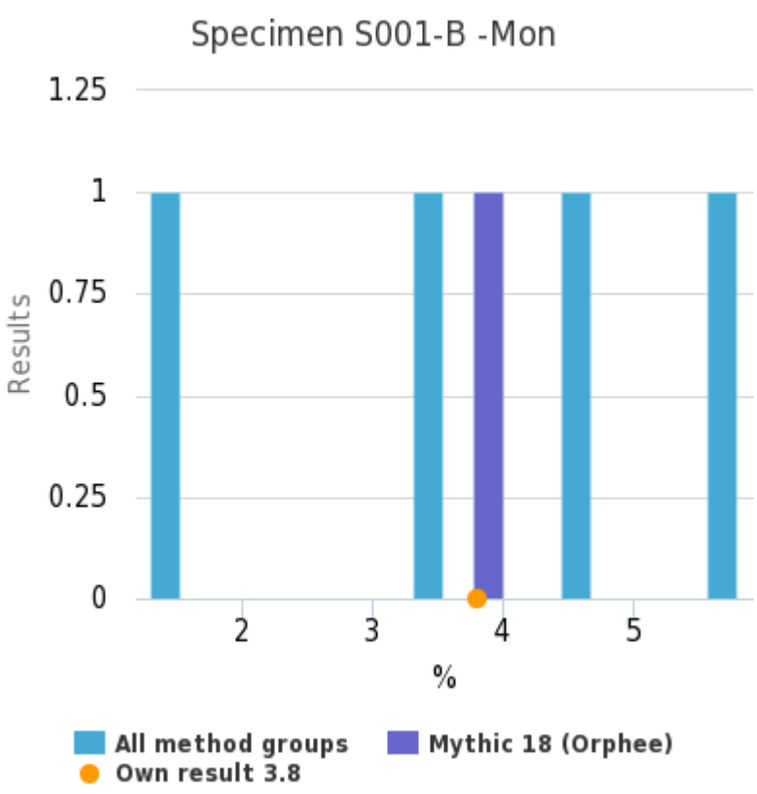


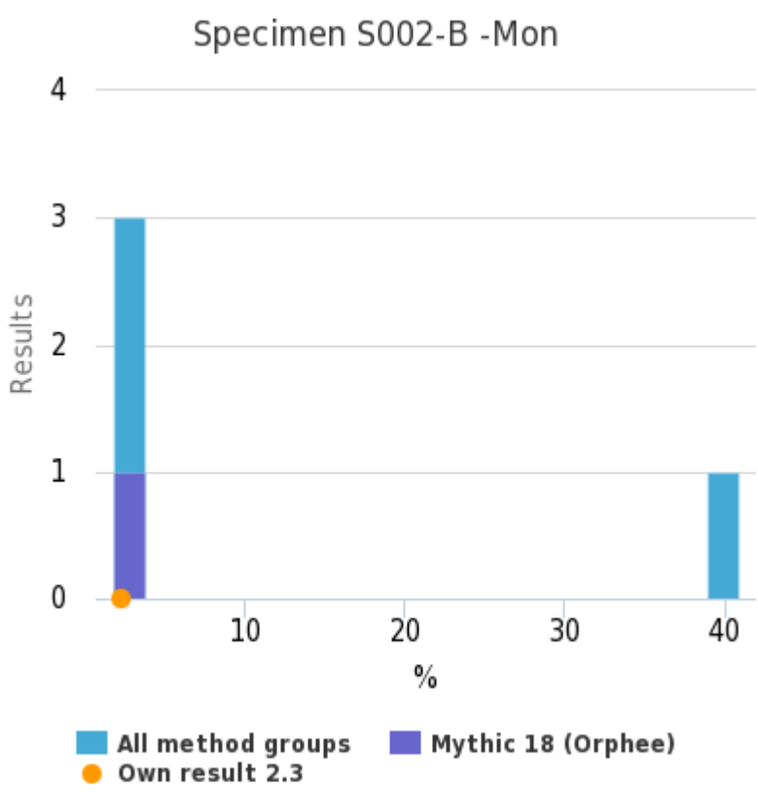


	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	2.0 x10E9/l	1.3	0.7	66.5	4

	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	2.9 x10E9/l	1.8	1.0	60.2	3

B -Mon |1

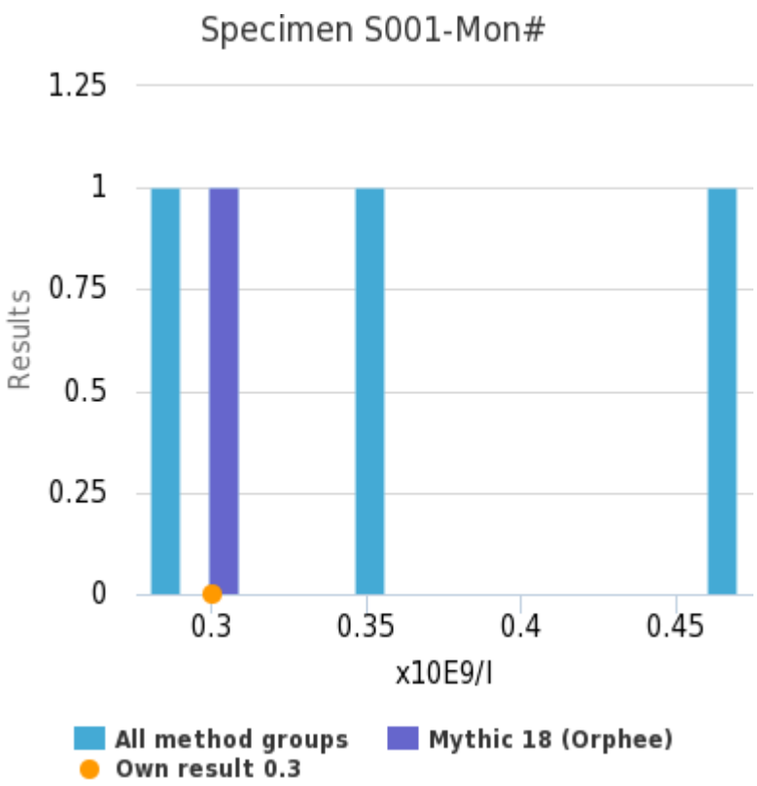


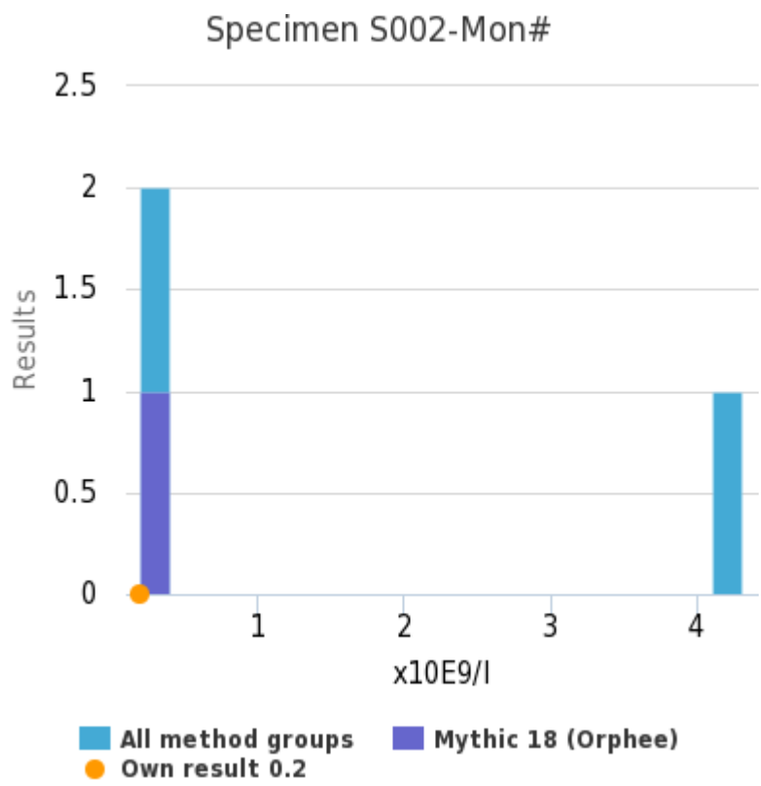


	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	3.8 %	1.7	0.7	44.0	5

	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	11.9 %	19.3	9.7	162.5	4

Mon# |1

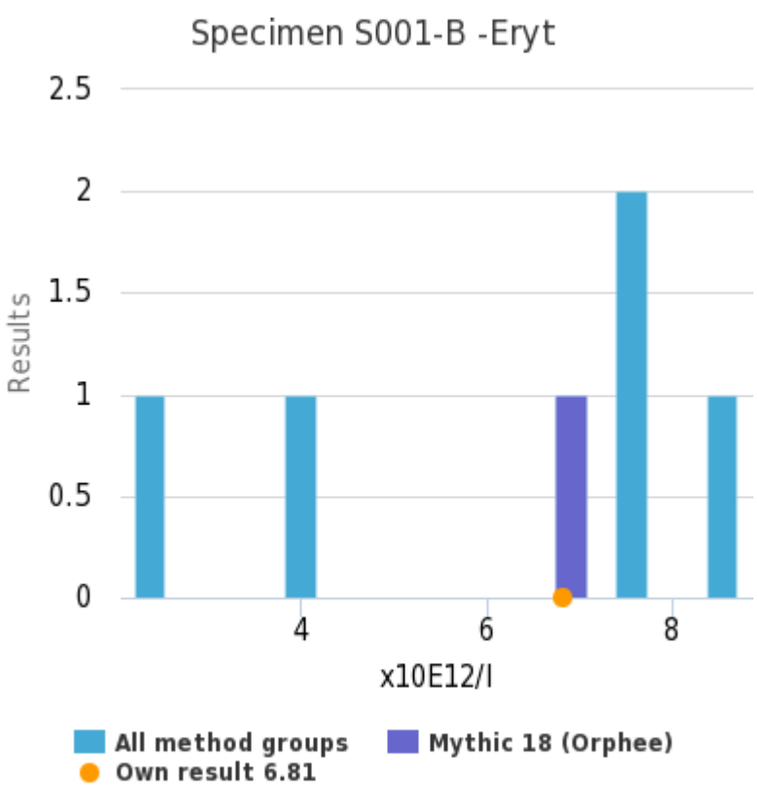


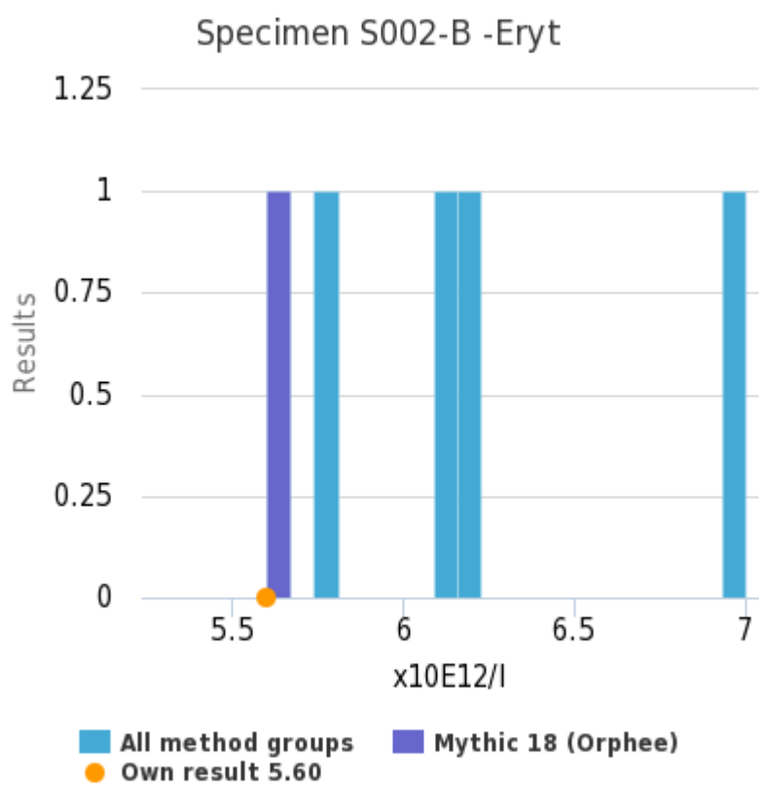


	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	0.4 x10E9/l	<0.1	<0.1	24.4	4

	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	1.6 x10E9/l	2.3	1.3	144.3	3

B -Eryt |1

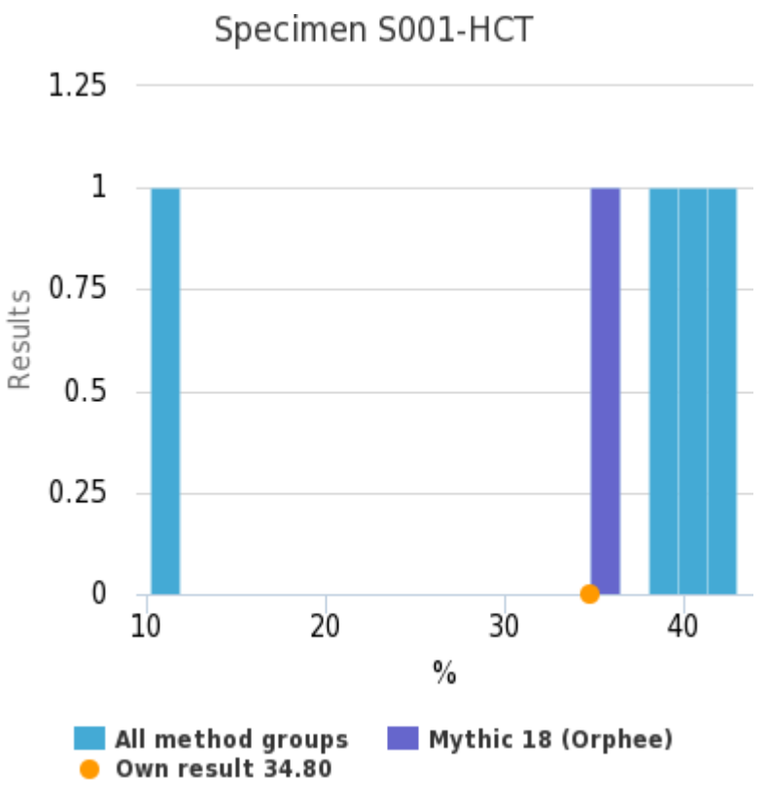


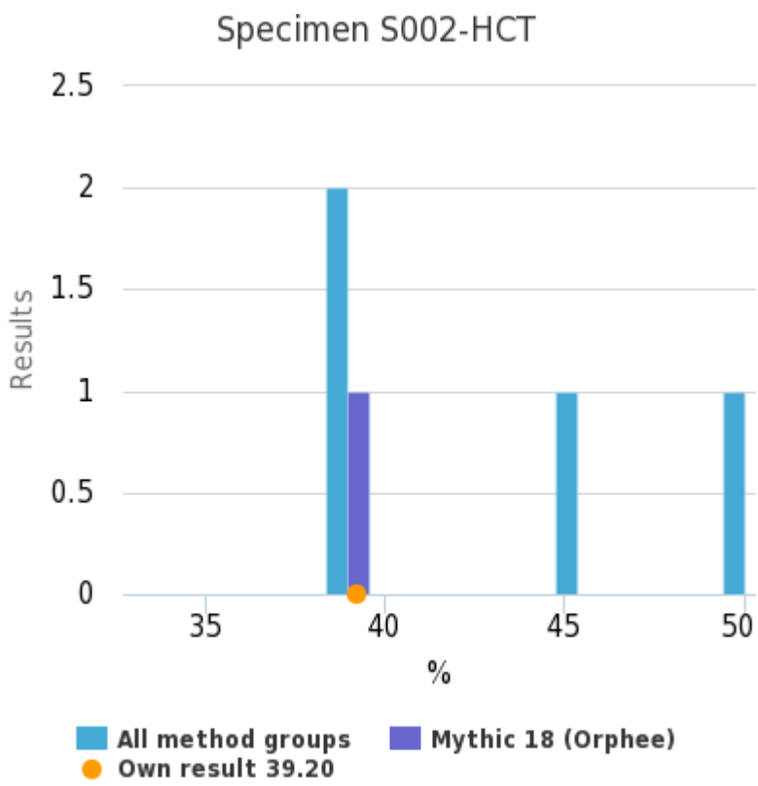


	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	6.11 x10E12/l	2.44	1.00	39.9	6

	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	6.13 x10E12/l	0.55	0.24	8.9	5

HCT |1

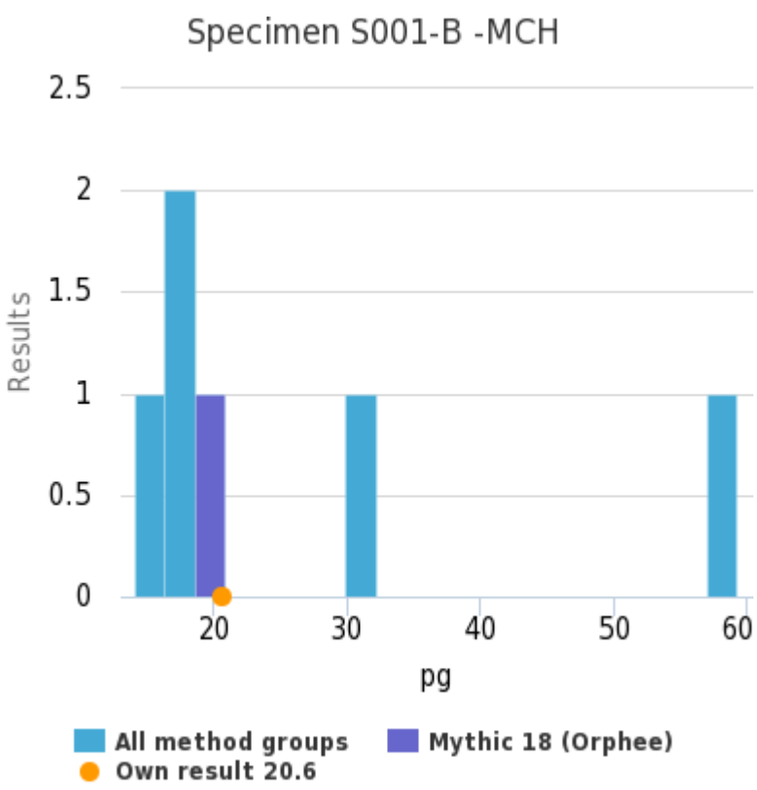


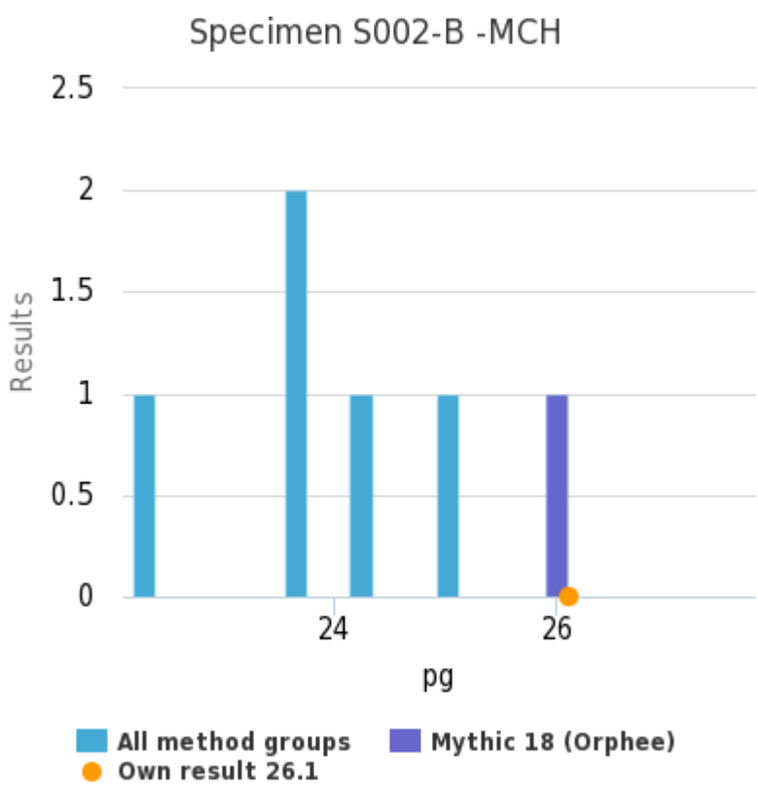


	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	33.48 %	13.34	5.97	39.9	5

	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	42.26 %	5.20	2.33	12.3	5

B -MCH |1

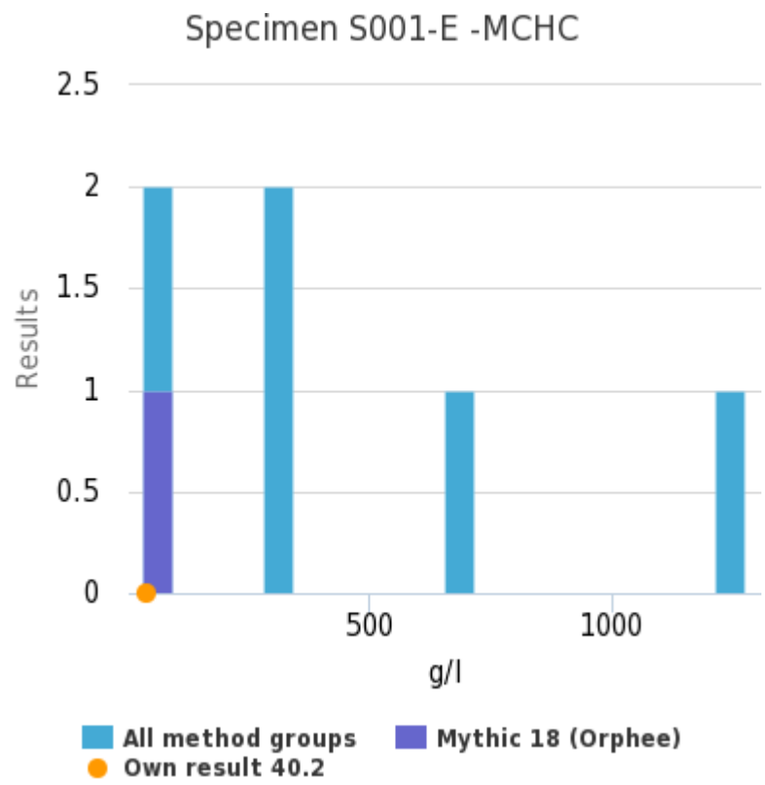


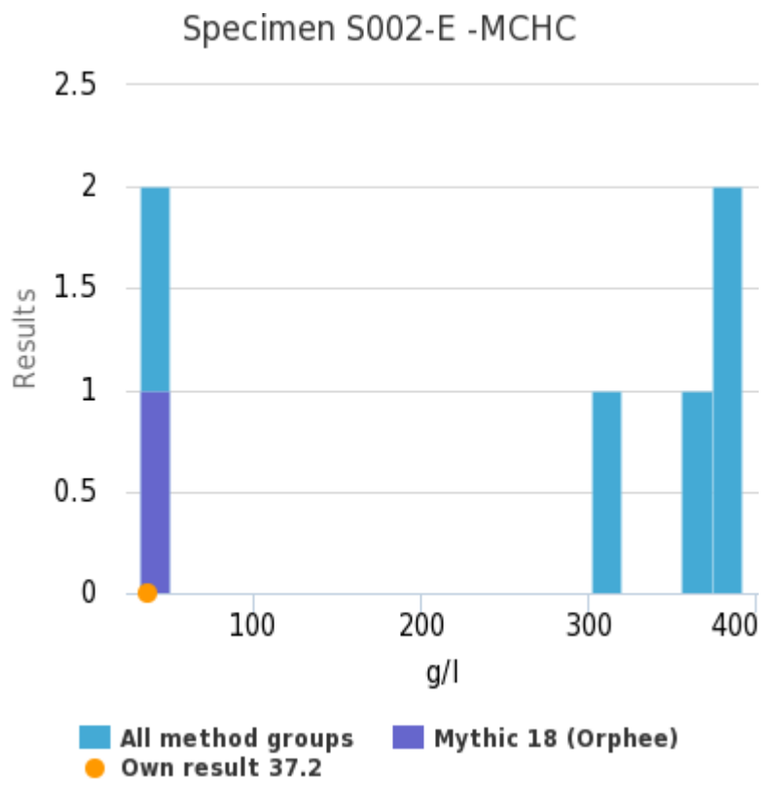


	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	26.6 pg	17.1	7.0	64.1	6

	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	24.1 pg	1.3	0.5	5.5	6

E -MCHC |1

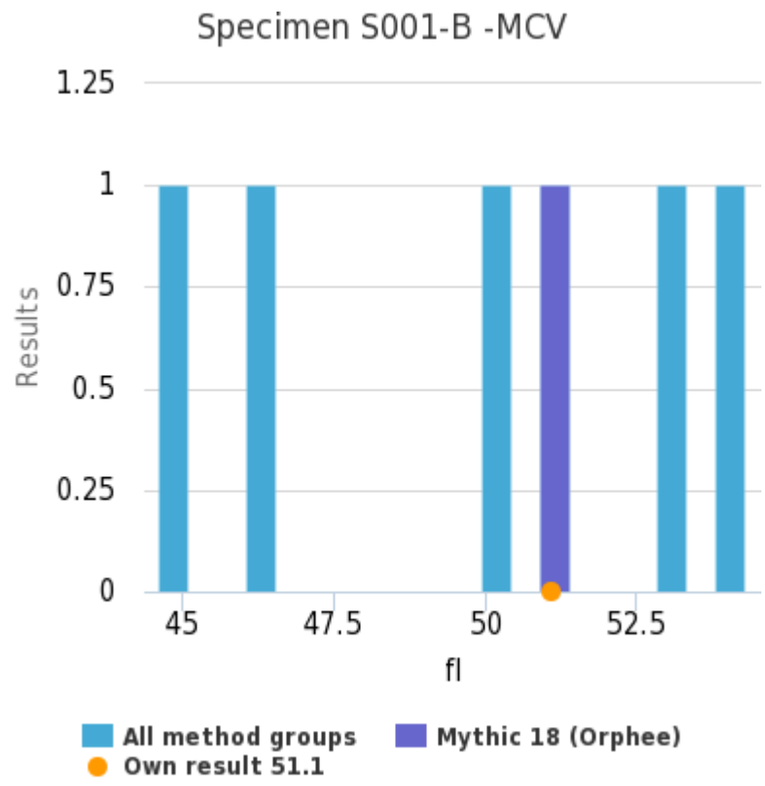


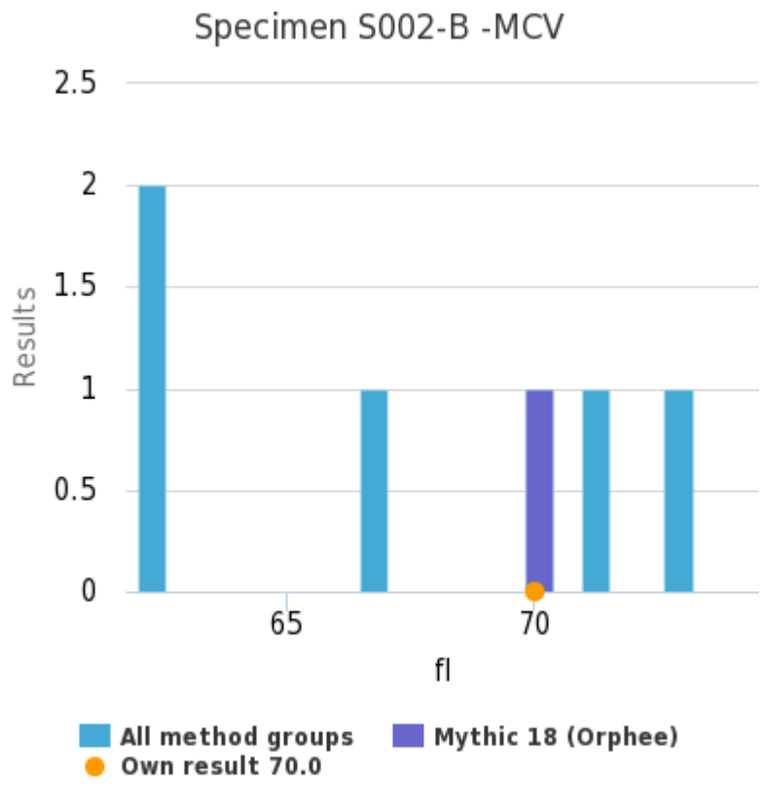


	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	442.1 g/l	475.2	194.0	107.5	6

	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	254.9 g/l	172.7	70.5	67.8	6

B -MCV |1

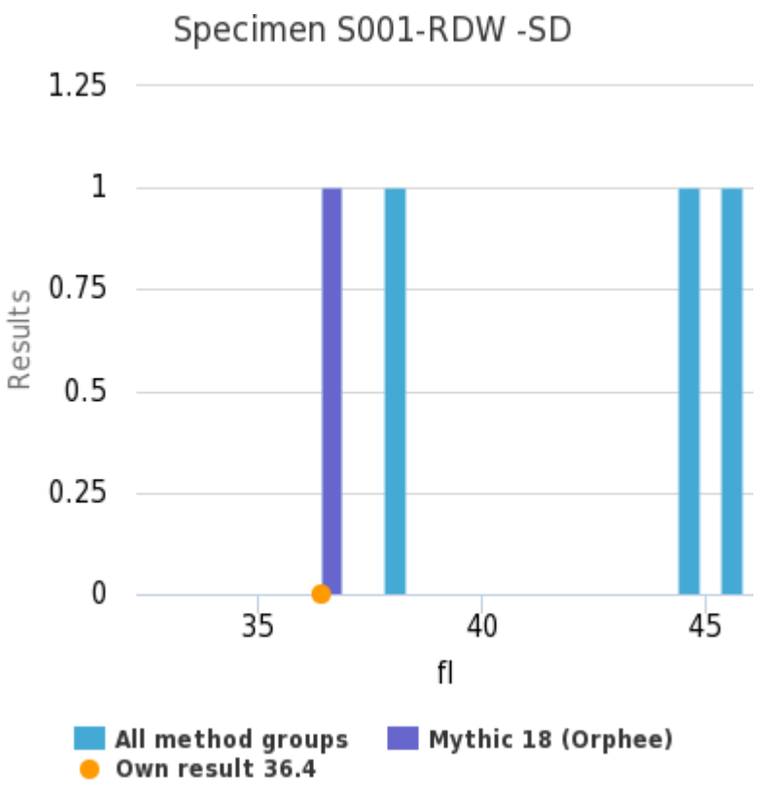


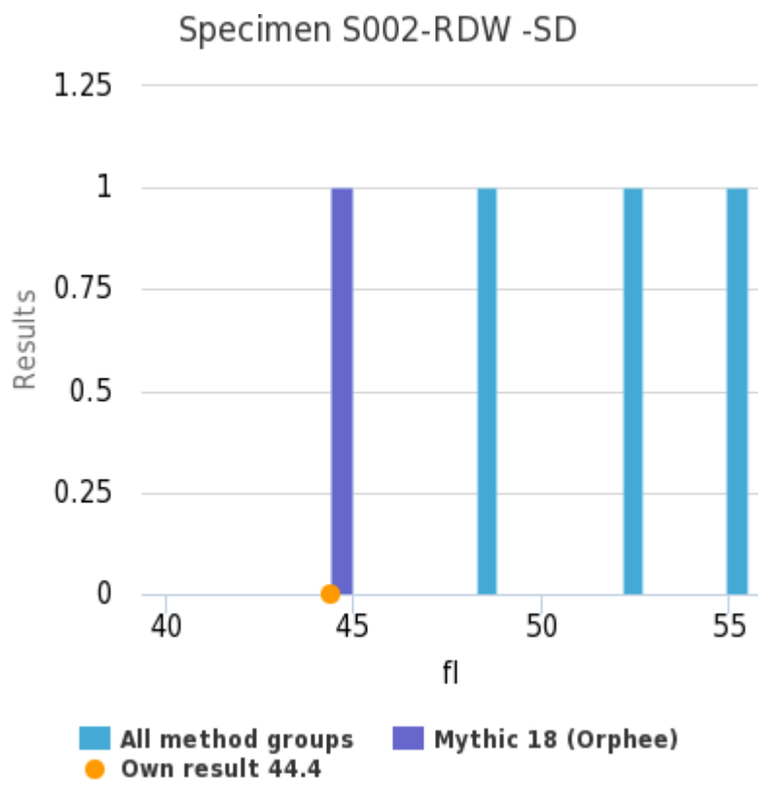


	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	49.9 fl	3.7	1.5	7.5	6

	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	67.5 fl	4.7	1.9	7.0	6

RDW -SD |1

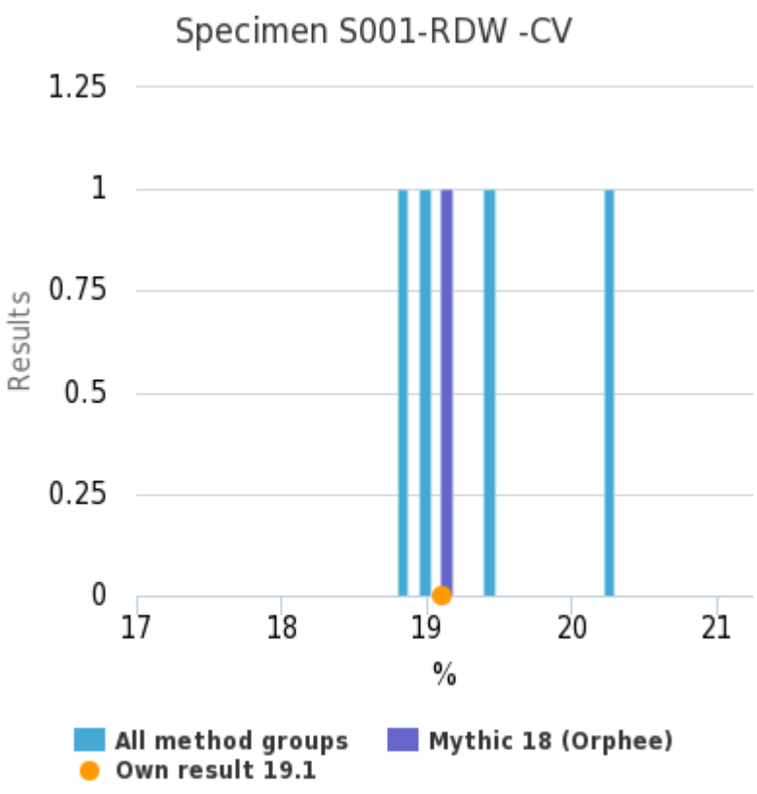


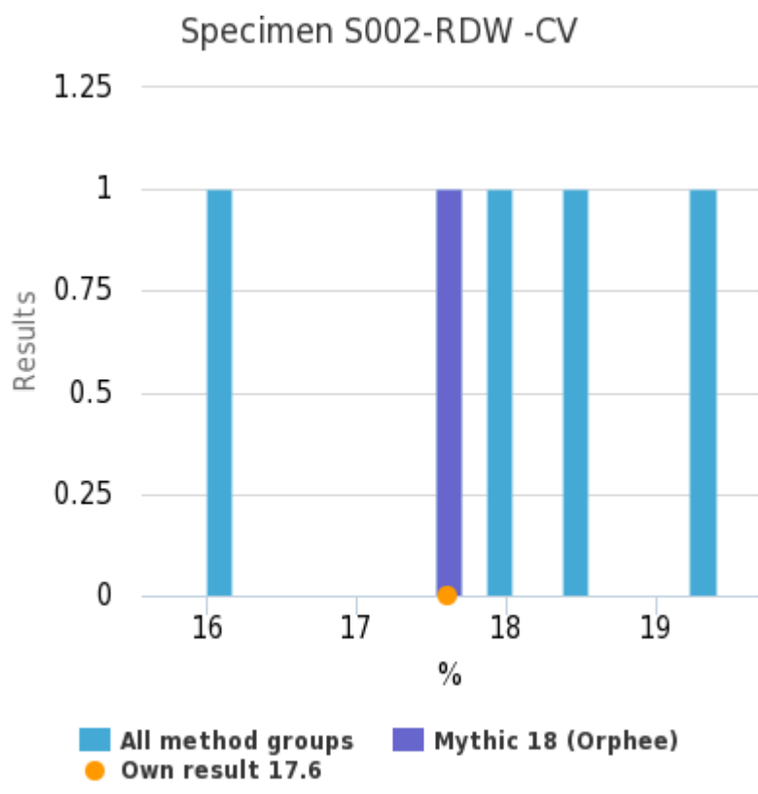


	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	41.2 fl	4.6	2.3	11.2	4

	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	50.2 fl	4.9	2.4	9.7	4

RDW -CV |1

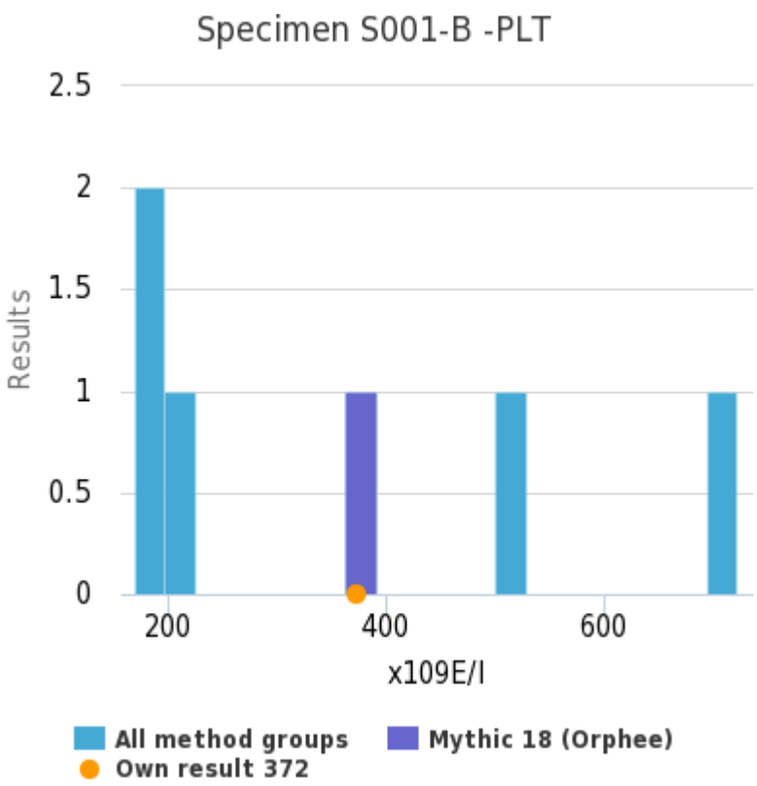


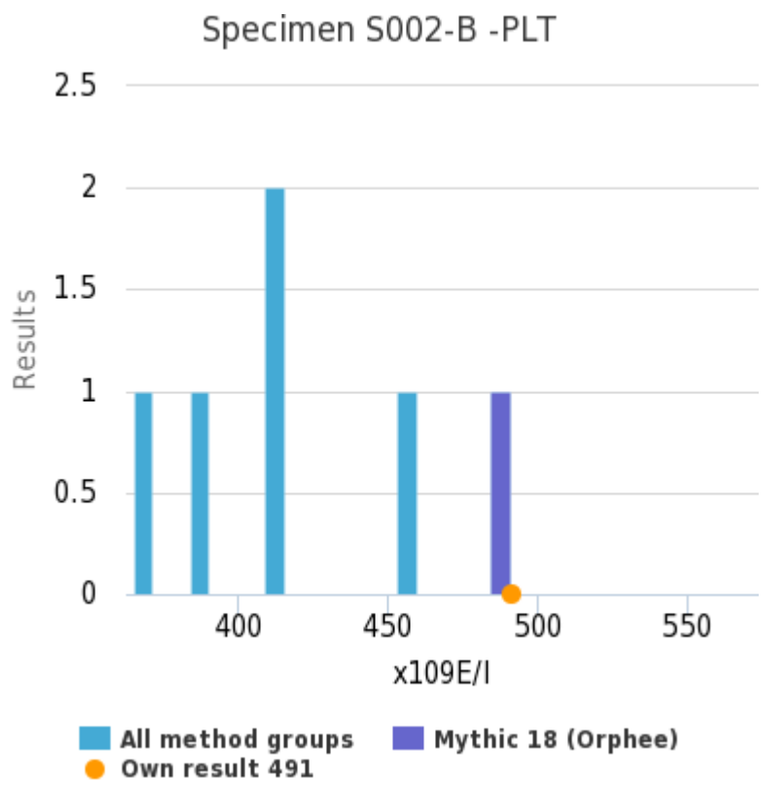


	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	19.3 %	0.6	0.3	3.0	5

	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	17.9 %	1.2	0.6	7.0	5

B -PLT |1

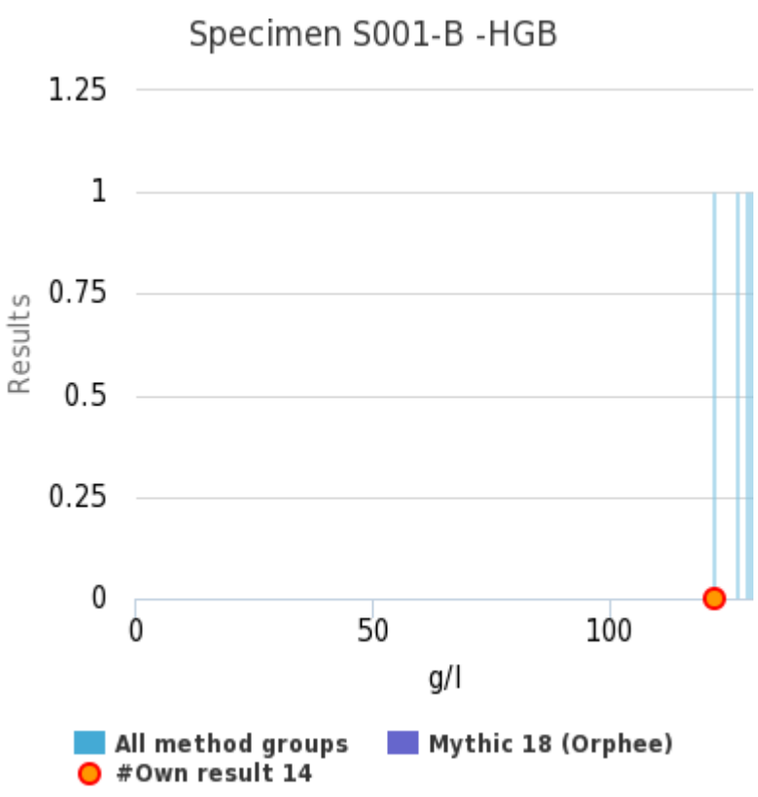


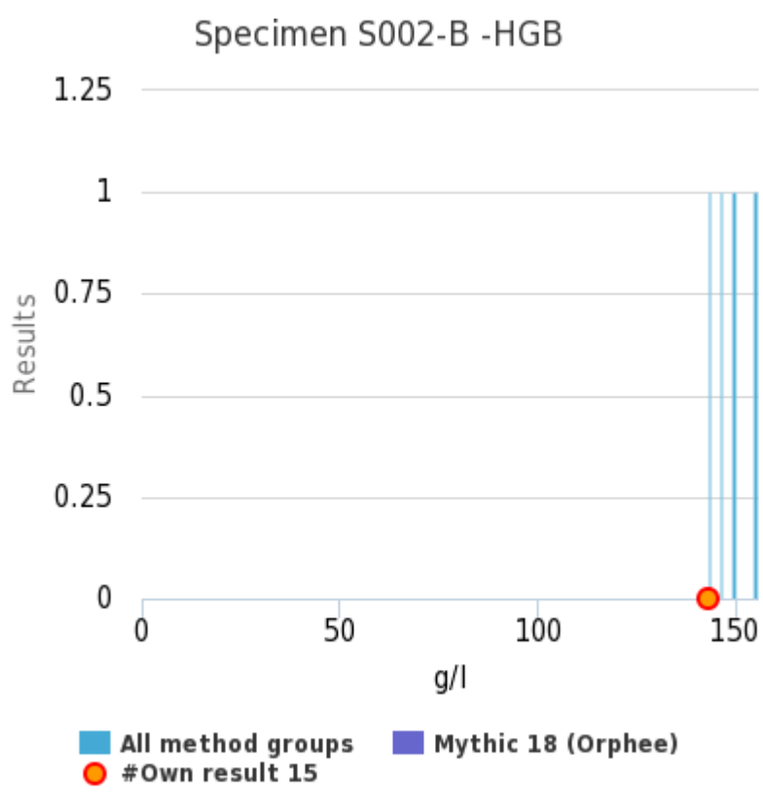


	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	366 x109E/l	222	91	60.7	6

	x_{pt}	sd	SEM	CV%	n
Mythic 18 (Orphee)	-	-	-	-	1
All methods	420 x109E/l	47	19	11.1	6

B -HGB |1





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LABQUALITY

External Quality Assessment Scheme

Veterinary basic blood count 1-2018

8 laboratories participated in this scheme.

Material

Specimens S001 (LQ780018011) and S002 (LQ780018012) were whole blood samples. Sample S001 was feline and S002 of canine origin.

The materials were sent without any temperature control packaging.

Expert comments

The number of participants is still moderate, which does not allow evaluation of results within different method groups and the target area will not be presented in the histogram if there is only one participant in the method group. The individual results in method groups need to be evaluated by comparing them to the average of all method groups, however, there are a few exceptions to that presented below.

The survey sample S001 (feline) caused notable variation in the erythrocyte and platelet results. Cats have a low MCV (mean corpuscular volume) of 40 to 50 fl as compared to human MCV of 80-100 fl. As erythrocyte and platelet populations in analyzers is usually based on size or volume, this may cause overlap between these populations and lead to erroneous results. With sample S001, it is seen that Advia 2120 gives clearly higher results for platelet and lower results for erythrocytes, while other method have quite consistent results.

Sample S002 was of canine origin, and due to higher MCV, the cell counts of erythrocyte and platelet are in concordance in all the methods.

The hemoglobin results were delightfully consistent in both samples.

The leukocyte count in both samples were quite consistent in all the methods. But when it comes to the differential count, there was huge variation in the numerical results. Underlying causes are probably the nature of artificial cell sample (which causes the cell particles to behave in a different way in different analyzers and counting channels), the mode of differential count (5- or 3-part) and possibly there has also been some mixing of absolute and percentage values when entering the results in LabScala.

The veterinary survey appears necessary especially when it comes to sample material that differs from the characteristics of human blood (in this case, the feline sample). In the future, growing number of participants would give the chance of evaluating the results within different method groups and also take a closer look at the results of the differential count.

2018-12-17

Final Report

Tuoteno.8610
LQ780018011-012 (US)

Samples sent 2018-11-22
Survey closed 2018-12-12
Report released 2018-12-17

The report contains
- Numerical summary
- Individual histograms (if results have been returned)

Inquiries about this survey, including questions of possible errors in result processing, should be at Labquality's office **before 2019-01-17.**

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How to interpret the report

Laboratories receive histogram reports in which the result distribution is shown in graphic mode. Laboratory's own result is marked with an orange dot. Black dashed line is the assigned value, the mean value of the accepted results calculated for clients using similar devices. Clear outliers of the result distribution have been removed. The yellow area is the target area which is depending on the test. The aim is for your result to be in the yellow area and if it is then it means that your laboratory's performance is acceptable compared to others using the same device. All participants receive also a numerical summary from which all the methods' performance can be seen.

From the beginning of 2018 we have made some changes in the statistical calculations and reporting. 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. In case there are 2-12 results in a method group, the robust calculation is not used but a calculation where results deviating more than +/- 3*standard deviation SD from the median are removed. Additionally, if the measurement uncertainty of the target value is too large ((u(xpt) < 0.1δE)) an automatic text is printed on the report: "The uncertainty of the assigned value is not negligible, and evaluations could be affected." In case there are 2-5 results in a method group, no z-score is calculated, and a text is printed on the report: "Due to the small number of results, the z score is not calculated." In case there are 6-12 results, the report has a text: "Z score is uncertain due to the small number of observations."

Guidelines how to interpret the reports can be found under "LabScala user instructions" in LabScala.

The symbols presented in the reports are
$\mathbf{x_{pt}}$ = Assigned value, method mean
Med = median value
sd = standard deviation showing the scattering of the results
CV% = coefficient of variation (standard deviation divided by the mean value)
SEM = Standard error of the mean (standard deviation divided by the square root of the number of results)
min = The smallest accepted result in the method group
max = The largest accepted result in the method group
Outliers = The number of outliers found by the calculation used
n = Number of accepted results in the method group

More specific instructions on how to interpret the reports can be found in LabScala under "LabScala user instructions" on the top right hand corner.

As there were only a limited amount of participants in this round all the conclusions from the report should be made with caution. In case you wish to have help in interpreting your performance please contact Labquality. We would be happy to be of assistance.

End of report