

HEMATOLOGY— Coagulation

APTT, D-dimer, LMW-heparin, Prothrombin time, Special coagulation tests

INDIVIDUAL RESULTS

e-scheme Reports for e-schemes are published only on Internet at www.labquality.fi

Histogram

The statistical values include the results that fall within the calculated limits for the group in question. The limits are obtained from the median value of the uncorrected results ± 3 * uncorrected standard deviation (s) if the group includes at least seven results.

The green columns show the results for the method group and blue columns relate to all of the results.

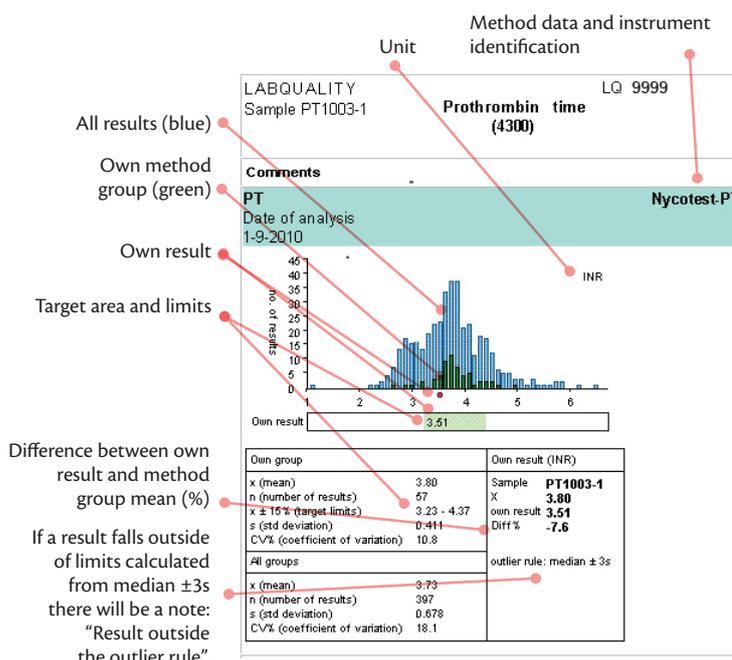
Laboratory's result is shown by a red dot and numerically. If a result falls beyond the scale of the axis, it is shown by an arrow instead of a dot. The green target area below the histogram is shown if there are at least seven results in the method group.

The statistical values for own group and all groups are printed below the histogram.

Numerical summary

The summary headline indicates the sample, date of report release, analyte, instrument and outlier rule.

The statistical values in the numerical summary are calculated similarly to the values under the histogram. The numerical summary shows all results by method. CV and s are calculated if there are at least two results in a method group. If there is only one, a dash (—) appears. Own method group is shaded.



analyte	method	mean	s	CV%	n	exclu resu
PT INR	Bio-Ksel System PT, Bio-Ksel	4.35	0.23	5.3	6	
	Biomed Thromboplastin, Biomed	2.24	-	-	1	
	BIO-TP Optic, BioLabo	3.97	0.76	19.1	2	
	Cormay Thromboplastin-S, P.Z. Cormay	6.54	-	-	1	
	DG PT reagent, Diagnostic Grifols	3.40	-	-	1	
	Dia PT Thromboplastin Reagent, Diagon - Budapest	4.48	0.68	15.2	4	
	Dialab Thromboplastin -S, Dialab	3.66	0.75	20.4	6	
	Diaplastin E, DiaMed	2.90	-	-	1	
	HemosIL PT Fibrinogen HS Plus, Instrumentation Laboratory	3.94	0.56	14.2	7	
	HemosIL PT Fibrinogen Recombinant, Instrumentation Laboratory	5.73	0.35	6.1	4	
	HemosIL PT-Fibrinogen, Instrumentation Laboratory	3.68	0.32	8.7	2	
	HemosIL RecombiPlasTin 2G, Instrumentation Laboratory	3.17	0.23	7.1	15	
	Innovin, Dade Behring	3.69	0.29	7.8	12	
	Neoplastine CI Plus, Diagnostica Stago	4.04	0.49	12.2	5	
	Nycotest-PT, Axis-Shield	3.80	0.41	10.8	57	
	Other reagent, Other	3.68	1.05	28.6	17	

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HEMATOLOGY— CELL COUNT AND MORPHOLOGY

Basic Blood Count

INDIVIDUAL RESULTS

e-scheme Reports for e-schemes are published only on Internet at www.labquality.fi

Histogram

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The green columns show the results for the method group and blue columns relate to all results.

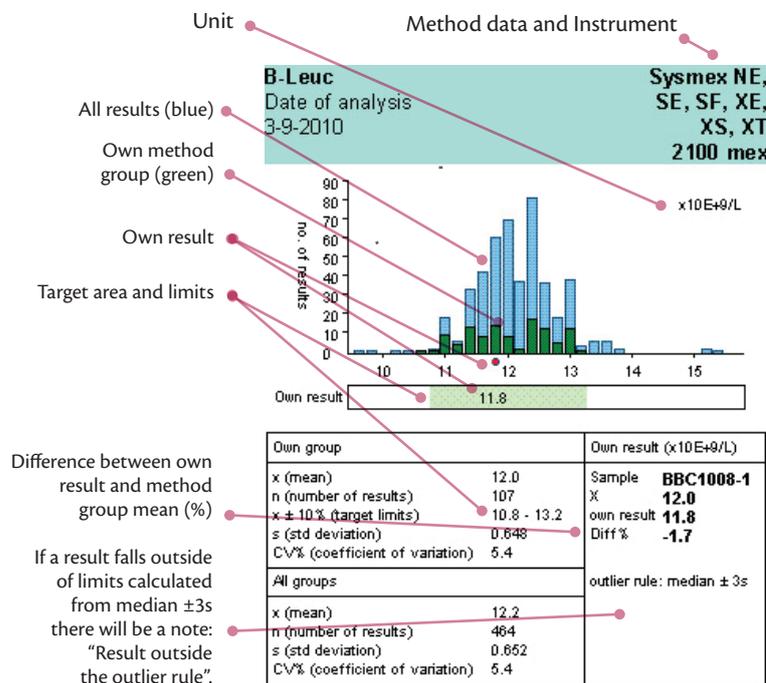
Laboratory's result is shown by a red dot and numerically. If a result falls beyond the scale of the axis, it is shown by an arrow instead of a dot. The green target area below the histogram is shown if there are at least seven results in the method group.

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Numerical summary

The summary headline indicates the sample, date of report release, analyte, instrument and outlier rule.

The statistical values in the numerical summary are calculated similarly to the values under the histogram. The numerical summary shows all results by method. CV and s are calculated if there are at least two results in a method group. If there is only one, a dash (—) appears. Own method group is shaded.



analyte	method	mean	s	CV%	n	excluded results
B-Leuc x10E+9/L	ABX Micros, Micros CRP, Pentra, ABX	12.0	0.44	3.7	102	0
	Biocode-Hycel Celly, Diana, Xenia, Hycel Diagnostics	12.8	0.75	5.9	3	0
	Cell-Dyn 3000, 3500, 3700, Abbot	12.5	0.61	4.8	13	0
	Cell-Dyn 300-2000, Abbot	11.2	1.20	10.8	2	0
	Cell-Dyn 3200, Ruby, Abbot	12.6	0.90	7.2	6	0
	Cell-Dyn 4000, Sapphire, Abbot	12.3	0.78	6.3	2	0
	Celltac MEK, Nihon Kohden	11.9	0.44	3.7	8	0
	Coulter T, Tc, J, MD, Act, LH 750, Beckman Coulter	12.5	0.38	3.0	36	1
	Coulter S+, STKS, MaxM, Onyx, GenS, HMX, Beckman Coulter	12.6	0.72	5.7	8	0
	D-cell 60, Diagon Ltd.	12.2	-	-	1	0
	Diatron Abacus, Arcus, Minicell, Diatron Ltd	12.6	0.64	5.1	10	0
	Excell 16 / 18, D3, Drew Scientific Group	11.4	0.42	3.7	2	0
	Hema Screen 18, 18c, Hospitex Diagnostics	15.2	-	-	1	0
	Medonic CA -, M-series, Hemocell, Boule Medical AB	12.3	0.96	7.8	8	0
	Mindray BC-2800, 3000 Plus, BC-5500, Mindray	12.4	0.64	5.1	16	0
	MIS 4, 4-5, 9, 9-5, Melet Schloesing	11.8	-	-	1	0
	Mythic 18, Orphee	10.7	1.48	13.9	2	0
	Other instrument, Other	11.6	1.00	8.6	5	0
	Siemens Advia 120.2120, Siemens	12.3	0.70	5.7	18	0
	Svetlab AC 900-970, Svetlab Instrument AB	12.9	1.15	8.9	14	0
Sysmex K, M, KX-21, Sysmex	12.1	0.41	3.4	89	1	
Sysmex NE, SE, SF, XE, XS, XT, Sysmex	12.0	0.65	5.4	107	0	
Sysmex pOCH-100, Sysmex	11.8	0.68	5.8	10	0	

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HEMATOLOGY— CELL COUNT AND MORPHOLOGY

Leucocyte differential count and evaluation of blood cell morphology

INDIVIDUAL RESULTS AND SUMMARIES

The results for evaluation of blood cell morphology are presented in the table for each specimen using scale *Change slight - Change clear - Change strong*.

On the left there are arrows showing findings in which at least 5 of 8 specialist haematologists agree when studying the smears individually, not as a group.

In leucocyte differential count the percentages are divided into eleven classes. Intervals between some classes have been chosen to correspond to reference ranges for different cell types. Tables are produced for each cell type (monocytes as an example). In an individual table, a laboratory's own result is placed in the appropriate class indicated in grey.

Laboratory's own result is indicated with grey.

LABQUALITY		Lab. no			
Evaluation of Blood Cell Morphology 1/2010					
Sample	241	Change Slight	Change Clear	Change Strong	
Erythrocytes					
View with low magnification	Rouleaux	40	14	3	
	Agglutination	9	2	1	
Size/shape/Hb-concentration	Hypochromic microcytes	9	0	0	
	Macro-ovalocytes	13	0	0	
	Round macrocytes	13	2	0	
	Pencil shaped cells	2	0	0	
	Ovalocytes/elliptocytes	5	0	0	
	Schistocytes/fragm. cells	2	0	0	
	Spherocytes	4	3	0	
	Target cells	18	1	0	
	Tear drop cells	11	0	0	
	Other	3	0	0	
	Cell maturation	Polychromatophilia	45	1	0
	Nucleated red cells	5	0	0	
Inclusion bodies	Basophilic stippling	1	0	0	
	Howell-Jolly bodies	4	1	0	
	Other	2	0	0	
Leucocytes					
View with low magnification	Leucocytosis	113	11	0	
Proportions of cells	Neutrophilia	1	0	0	
	Left shift	7	2	1	
	Lymphocytosis	85	40	5	
	Eosinophilia	11	4	0	
	Neutropenia	29	3	0	
	Blasts	3	1	0	
	Other	3	1	3	
	Granulocyte morphology	Hypersegmentation	5	2	1
		Peiger-Huet anomaly	1	1	0
		Irregularly shaped lobes	4	3	0
		Auer-rods/bodies	1	0	0
Toxic granulation		5	1	0	
Hypogranulation		3	3	1	
Other		4	0	1	
Lymphocyte morphology	Reactive lymphocytes	44	52	36	
	Prolymphocytes	3	2	0	
	Plasma cells	7	1	1	
	Other	8	7	7	
Monocyte morphology	Reactive monocytes	15	6	1	
	Other	3	2	0	
Platelets					
View with low magnification	Thrombocytosis	8	3	3	
Altered platelet morphology	Anisocytosis, aggregated	44	10	2	
Normal case					
No abnormal findings		7	1	0	

HAEMATOLOGIST'S REPORT

The haematologist's report includes findings, diagnoses, red cell indices, automated cell counts (red cell indices, WBC, PLT) and automated differential count.

The photographs show the most characteristic findings.

Monocytes	
Percentages	Number of results
0	6
1 - 4	180
5 - 9	130
10 - 19	5
20 - 29	0
30 - 39	0
40 - 49	0
50 - 59	0
60 - 69	0
70 - 79	0
80 - 100	0

Lab-quality Leucocyte differential count and evaluation of blood cell morphology 1/2010

Diagnoses

241 Suspicion of LGL-leukaemia (large granular lymphocyte). The immunophenotype of the cells was: CD29+, CD56+, CD57+.

242 A healthy donor for peripheral blood stem cells.

243 There could not be found any specific reason for the gastrointestinal problems.

241 Two LGL-cells (Large Granular Lymphocytes).

241 Monocyte (to the left), two LGL-cells (to the right).

242 Monocyte and a band form neutrophil.

242 From the left: a band form, a meta-myocyte and a myocyte.

243 Monocyte.

243 A small lymphocyte (to the left) and an LGL-cell (to the right).

HEMATOLOGY— CELL COUNT AND MORPHOLOGY

Leucocyte differential count, 3-part

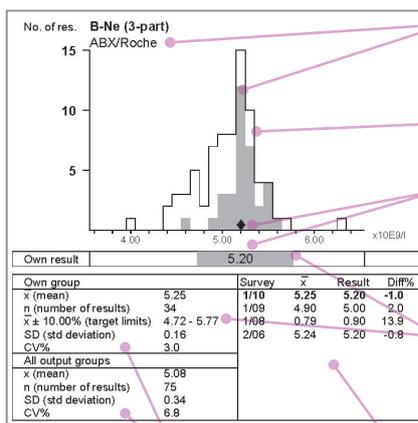
INDIVIDUAL RESULTS

The statistical values include the results that fall within the calculated limits for the group in question. The limits are obtained from the median value of the uncorrected results $\pm 3 \times$ uncorrected SD if the group includes at least seven results.

The shaded area on the histogram represents the results for the own method group. The outer edges of the histogram relate to all results.

Laboratory's result is shown by a black diamond and numerically below the histogram. If a result falls beyond the scale of the axis, it is shown by an arrow instead of a diamond. The grey target area below the histogram is shown if there are at least seven results in the method group.

The statistical values for the laboratory's own group and all groups are printed below the histogram as well as results from previous ten surveys.



Results for the laboratory's own group

Shaded area on the histogram presents the method group in question.

All results

Outer edges of the histogram.

Laboratory's own result

Own result is shown as a black diamond on the histogram and numerically in the box below the histogram. If a result falls beyond the scale of the axis, it is shown as an arrow instead of a diamond.

The target area and limits

The graphical target area is shown in grey in the same box as the laboratory's result below the histogram. The area is shown if there are seven or more results in a method group. The limits are presented numerically in the section "Own group".

Own group and all output groups

SD and CV are calculated if there are at least two results in a group. If there is only one, a dash (—) appears. Own result should always be compared within own method group.

Summary of laboratory's last ten surveys (if participated)

Survey: Number of the survey and year
 \bar{x} : Mean
 Result: Laboratory's result
 Diff%: Difference between laboratory's result and its method group mean

NUMERICAL SUMMARY

The statistical values in numerical summaries are calculated similarly to the values under the histogram.

The numerical summary shows all results by method. CV and SD are calculated if there are at least two results in a method group. If there is only one, a dash (—) appears.

NUMERICAL SUMMARY Leucocyte Differential Count, 3-part, automated 1/2010						
Sample 001						
Assay	Output group	\bar{x}	SD	CV%	Results	
B-Ne (3-part) x10E9/l	Coulter	5.14	0.56	11.0	9	
	Cell-Dyn	4.99	0.15	2.9	10	
	ABX/Roche	5.25	0.16	3.0	34	
	Nihon Kohden, Celltac Mek	4.74	0.43	9.0	12	
	Siemens Advia 60	5.23	0.21	4.0	3	
	Mindray BC-2800, 3200	4.80	0.10	2.1	3	
	Swelab	4.90	0.00	0.0	2	
	Other instruments	4.92	0.40	8.2	2	
Sample 002						
B-Ne (3-os.) x10E9/l	Sysmex	2.25	0.65	28.7	106	

An extract of a numerical summary for 3-part differential. In EQA for automated analysers it is usual that some analysers require own special EQA samples. In this survey Sysmex analysers used sample no. 2 and other instruments had sample no. 1. The main rule in EQA result evaluation is to compare your results only with those in your own instrument or method group.

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HEMATOLOGY— CELL COUNT AND MORPHOLOGY

Leucocyte differential count, 5-part

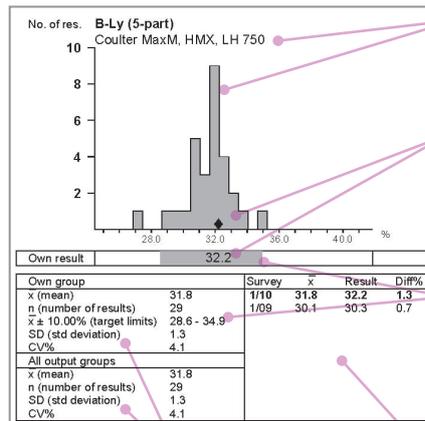
INDIVIDUAL RESULTS

The statistical values include the results that fall within the calculated limits for the group in question. The limits are obtained from the median value of the uncorrected results $\pm 3 \times$ uncorrected SD if the group includes at least seven results.

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The statistical values for the laboratory's own group and all groups are printed below the histogram as well as results from previous ten surveys.



Results for the laboratory's own method group

– Shaded area on the histogram. In this case all results are in the same method group.

Laboratory's own result

Own result is shown as a black diamond on the histogram and numerically in the box below the histogram. If a result falls beyond the scale of the axis, it is shown as an arrow instead of a diamond.

The target area and limits

The graphical target area is shown in grey in the same box as the laboratory's result below the histogram. The area is shown if there are seven or more results in a method group. The limits are presented numerically in the section "Own group".

Summary of laboratory's last ten surveys (if participated)

Survey: Number of the survey and year
 x̄: Mean
 Result: Laboratory's result
 Diff%: Difference between laboratory's result and its method group mean

Own group and all output groups

SD and CV are calculated if there are at least two results in a group. If there is only one, a dash (—) appears. Own result should always be compared within own method group. In this case the values in own group and all groups are same.

NUMERICAL SUMMARY

The statistical values in numerical summaries are calculated similarly to the values under the histogram.

The numerical summary shows all results by method. CV and SD are calculated if there are at least two results in a method group. If there is only one, a dash (—) appears.

NUMERICAL SUMMARY Leucocyte Differential Count, 5-part, automated 1/2010					
Sample 001					
Assay	Output group	\bar{x}	SD	CV%	Results
B-Ly (5-part) %	Coulter MaxM, HMX, LH 750	31.8	1.3	4.1	29
B-Mo (5-part) %	Coulter MaxM, HMX, LH 750	3.1	1.3	42.0	29
B-Ne (5-part) %	Coulter MaxM, HMX, LH 750	59.1	1.3	2.3	30
B-Eo (5-part) %	Coulter MaxM, HMX, LH 750	5.9	0.3	5.7	30
B-Ba (5-part) %	Coulter MaxM, HMX, LH 750	0.4	0.2	49.2	25
B-Leuk x10E9/l	Coulter MaxM, HMX, LH 750	9.2	0.4	4.7	31

An example of a numerical summary produced by instrument type. Each instrument type has a different sample. The main rule in EQA result evaluation is to compare your results only with those in your own instrument or method group.

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HEMATOLOGY— CELL COUNT AND MORPHOLOGY

Reticulocytes, manual methods

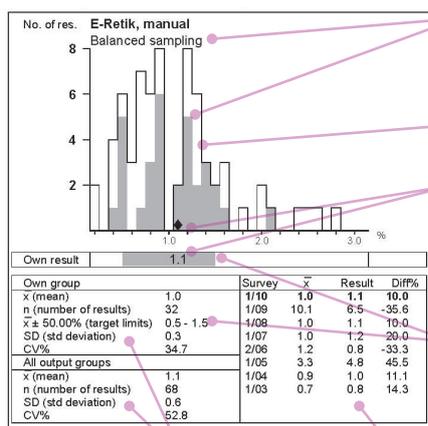
INDIVIDUAL RESULTS

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The statistical values for the laboratory's own group and all groups are printed below the histogram as well as results from previous ten surveys.



Results for the laboratory's own method group
Shaded area on the histogram presents the method group in question.

All results
Outer edges of the histogram.

Laboratory's own result
Own result is shown as a black diamond on the histogram and numerically in the box below the histogram. If a result falls beyond the scale of the axis, it is shown as an arrow instead of a diamond.

The target area and limits
The graphical target area is shown in grey in the same box as the laboratory's result below the histogram. The area is shown if there are seven or more results in a method group. The limits are presented numerically in the section "Own group".

Summary of laboratory's last ten surveys (if participated)
Survey: Number of the survey and year
 \bar{x} : Mean
Result: Laboratory's result
Diff%: Difference between laboratory's result and its method group mean (%)

Own group and all output groups
SD and CV are calculated if there are at least two results in a group. If there is only one, a dash (—) appears. Own result should always be compared within own method group.

NUMERICAL SUMMARY

The statistical values in numerical summaries are calculated similarly to the values under the histogram.

The numerical summary shows all results by method. CV and SD are calculated if there are at least two results in a method group. If there is only one, a dash (—) appears.

NUMERICAL SUMMARY		Reticulocytes			
Sample 001					
Assay	Output group	\bar{x}	SD	CV%	Results
E-Retik, manual %	Balanced sampling	1.0	0.3	34.7	32
	Others	1.1	0.7	62.3	36

An example of statistical processing of reticulocyte count survey with manual methods. The main rule in EQA result evaluation is to compare your results only with those in your own method group.

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HEMATOLOGY— CELL COUNT AND MORPHOLOGY

Reticulocytes, automated analysers

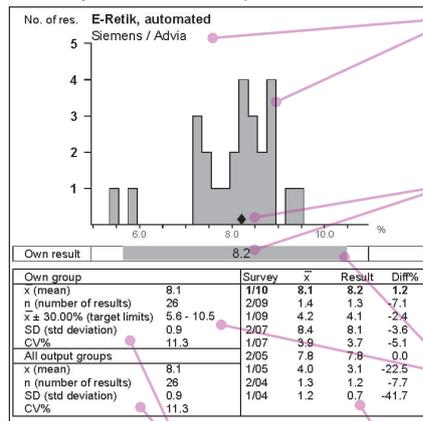
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The statistical values for the laboratory's own group and all groups are printed below the histogram as well as results from previous ten surveys.



Results for the laboratory's own method (output) group

Shaded area on the histogram presents the method group in question. In this case all results are in the same method group.

Laboratory's own result

Own result is shown as a black diamond on the histogram and numerically in the box below the histogram. If a result falls beyond the scale of the axis, it is shown as an arrow instead of a diamond.

The target area and limits

The graphical target area is shown in grey in the same box as the laboratory's result below the histogram. The area is shown if there are seven or more results in a method group. The limits are presented numerically in the section "Own group".

Summary of laboratory's last ten surveys (if participated)

Survey: Number of the survey and year
 \bar{x} : Mean
 Result: Laboratory's result
 Diff%: Difference between laboratory's result and its method group mean (%)

Own group and all output groups

SD and CV are calculated if there are at least two results in a group. If there is only one, a dash (—) appears. Own result should always be compared within own method group. In this case the values in own group and all groups are same.

NUMERICAL SUMMARY

The statistical values in numerical summaries are calculated similarly to the values under the histogram.

The numerical summary shows all results by method. CV and SD are calculated if there are at least two results in a method group. If there is only one, a dash (—) appears.

Sample	Assay	Output group	\bar{x}	SD	CV%	Results
Sample 003	E-Retik, automated %	Siemens / Advia	8.1	0.9	11.3	26
Sample 005	E-Retik, automated %	Sysmex XE 2100	2.0	0.3	13.3	31
		Sysmex XT2000i	2.4	0.5	19.8	18
		Sysmex XE-5000	2.0	0.2	10.7	10
		Cell-Dyn 4000, Sapphire	5.0	—	—	1
		Cell-Dyn 3200	2.8	0.9	30.5	3
Sample 007	E-Retik, automated %	Cell-Dyn 3700	5.7	0.6	11.3	3
Sample 009	E-Retik, automated %	Coulter STKS, MaxM, GenS, LH 750	11.1	0.4	4.0	12

An example of a numerical summary produced by sample and instrument type. Each instrument type had a separate sample. The main rule in EQA result evaluation is to compare your results only with those in your own instrument or method group.

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