THROMBOPHILIA MODULE
LABORATORY CODE NUMBER: 900

ANTITHROMBIN

Test plasma : 09.46

Type of plasma : **Plasma of a heterozygous deficient patient**

Former used in exercise : -

No. of Responders	Participation rate	Outliers	Labcode
277	89%	0.7%	303 , 416

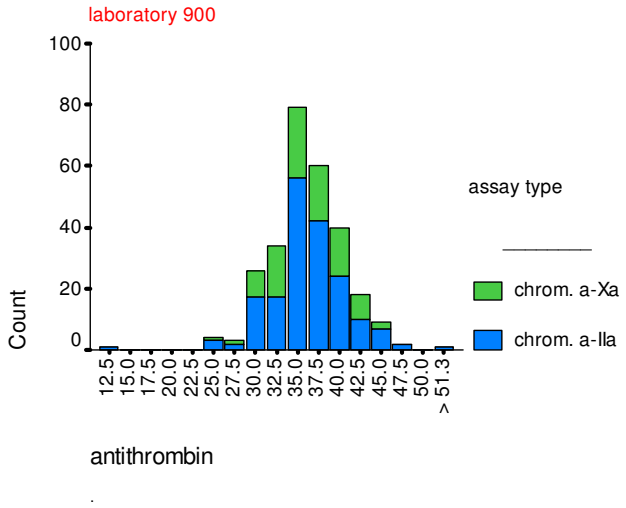
CLASSIFICATION				
Normal	**Borderline Normal**	**Borderline Abnormal**	**Abnormal**	**No classification**
5	1	1	269	1

Method Code	Description	Number of responders
101	Beckman Coulter Electrachrom AT	
109	Biopep Chromopep AT	
155	Biophen Antithrombin	5
105	Chromogenix Coamatic Antithrombin	22
106	Chromogenix Coamatic AT-400	2
108	Chromogenix Coamatic LR Antithrombin	6
112	DG-Chromat ATIII	1
113	Electrochem ATIII	
114	Helena Chromz-AT	1
115	Hemolab ATIII chrome (Biomerieux)	
117	Hyphen-Biomed Chromopep AT	2
120	I.L. HemosIL Antithrombin	9
121	I.L. HemosIL liquid Antithrombin	33
125	Immuno ATIII chrome	
126	Nobis Nobichrom Antithrombin	
145	Pacific Hemostasis Chrom AT assay	
150	Precision Biologic Cromocheck AT	3
160	Renam Reachrom ATIII	
110	Siemens / Dade Behring Antithrombin Reagent	4
100	Siemens / Dade Behring Berichrom Antithrombin III	77
123	Siemens / Dade Behring Innovance Antithrombin	8
130	Stago / Roche Stachrom ATIII / Antithrombin III	96
135	The Binding Site AT activity	
127	Trinity / BioMerieux Chromostrate ATIII	
128	Trinity / BioMerieux MDA ATIII	1
102	Trinity / Biopool Spectrolyse ATIII (anti-IIa)	
103	Trinity / Biopool Spectrolyse ATIII (anti-Xa)	1
129	Trinity / Sigma Accucolor Antithrombin	
140	Unicorn ATIII	
190	Homemade	2
199	Other/Unknown	4

Note: Detailed information is given for those methods that are used by at least 10 participants.

Labcode: 900

ANTITHROMBIN (%, IU/dl)



ANTITHROMBIN	n	mean	CV	range	your result	z-score
Total group	**275**	**36.1**	**11.2%**	**24 – 47**		
Chromogenic - anti-IIa	**180**	**36.2**	**11.2%**	**24 – 47**		
Berichrom (Dade-Behring)	75	35.5	9.7%	24 – 47		
Stachrom / ATIII (Stago/Roche)	96	36.8	11.9%	26 – 47		
Chromogenic - anti-Xa	**95**	**36.0**	**11.2%**	**25 – 46**		
Coamatic (Chromogenix)	22	35.7	11.7%	25 – 43		
HemosIL liquid Antithrombin (IL)	33	35.7	10.7%	27 – 42		

Remarks: -

ANTITHROMBIN ANTIGEN

No. of Responders	Participation rate	Outliers	Labcode
50	16%	4%	362 , 980

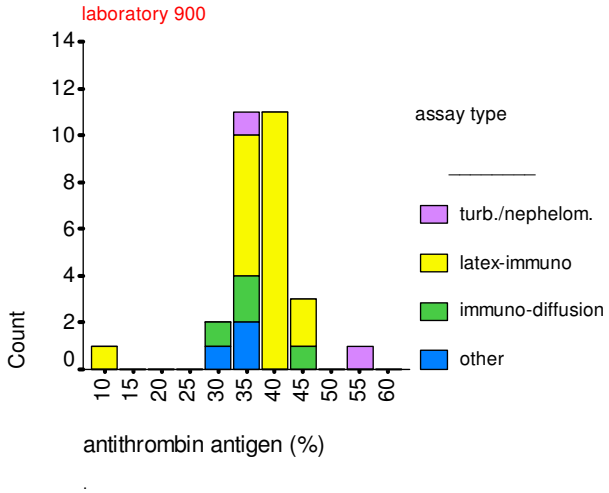
CLASSIFICATION				
Normal	**Borderline Normal**	**Borderline Abnormal**	**Abnormal**	**No classification**
1	0	0	49	0

Labcode: 900

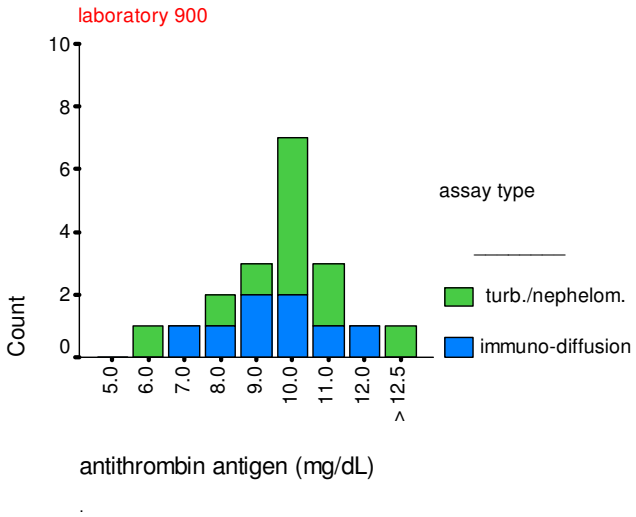
Method Code	Description	Number of responders
1001	Beckman Array AT3	
1002	Beckman Immage AT kit	
1004	Coachrom ATIII EIA	
1013	Helena Quickplate AT	
1015	Hyphen-Biomed Liaphen ATIII	1
1009	Siemens / Dade Behring Human ATIII Nephelometric	6
1010	Siemens / Dade Behring NorPartigen Antithrombin	5
1011	Siemens / Dade Behring Turbiquant ATIII	6
1032	Stago / Roche Liatest AT	19
1028	The Binding Site ATIII antigen	7
1089	Homemade (Affinity Biologicals, antibodies)	
1090	Homemade (DAKO antibodies)	3
1091	Homemade (Siemens / Dade Behring antibodies)	2
1092	Homemade (Other)	
1099	Other / Unknown	1

Note: Detailed information is given for those methods that are used by at least 10 participants.

ANTITHROMBIN ANTIGEN (%, IU/dl)



ANTITHROMBIN ANTIGEN (mg/dL)



ANTITHROMBIN ANTIGEN	n	mean	CV	Range	your result	z-score
Result expressed in %	**28**	**38.0**	**13.2%**	**28 – 53**		
Liatest AT (Stago)	18	38.9	7.6%	33 – 43		
Result expressed in mg/dL	**18**	**9.4**	**15.5%**	**6.1 – 11.7**		

Remarks: None

Labcode: 900

PROTEIN C

Test plasma : 09.47

Type of plasma : **Coagulation Control Abnormal (Technoclone, lot no. 3P69000)**

Former used in exercise : -

PROTEIN C ACTIVITY (chromogenic)

No. of Responders	Participation rate	Outliers	Labcode
228	73%	1.8%	159 , 231 , 271 , 275

CLASSIFICATION				
Normal	Borderline Normal	Borderline Abnormal	Abnormal	No classification
0	0	1	226	1

Method Code	Description	Number of responders
260	Beckman Coulter Electrachrom PC	1
206	Biopep Chromopep PC	
240	Biophen Protein C	7
205	Chromogenix Coamatic Protein C	45
211	DG-Chromat PC	1
212	Helena Chromz Protein C	1
213	Hemolab Prot. C chrom (Biomerieux)	
216	I.L. HemosIL Protein C	16
220	Immuno Prot. C chrome	2
246	Precision Biologic Chromocheck Protein C	4
265	Renam Reachrom Protein C	
202	Roche-Boehringer Protein C (B/M Hitachi)	
200	Siemens / Dade Behring Berichrom Protein C	88
226	Stago / Roche Stachrom Protein C	
230	The Binding Site Protein C activity	56
223	Trinity / BioMerieux MDA Protein C	1
207	Trinity / BioMerieux Protein C chrom	
204	Trinity / Biopool Spectrolyse Protein C	
235	Unicorn Protein C	
290	Homemade	
299	Other / Unknown	6

Note: Detailed information is given for those methods that are used by at least 10 participants.

PROTEIN C ACTIVITY (clotting)

No. of Responders	Participation rate	Outliers	Labcode
86	28%	0%	-

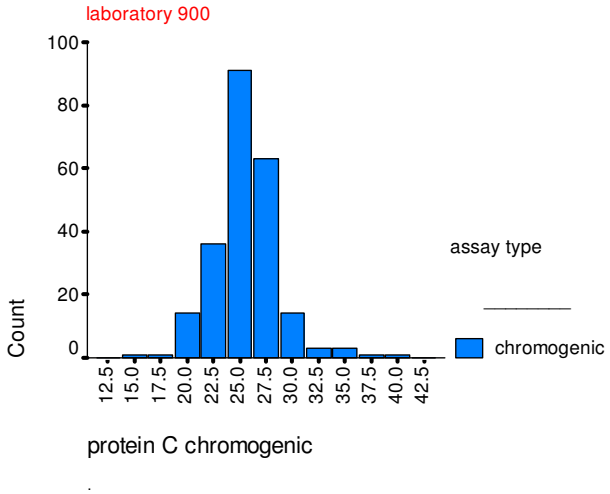
CLASSIFICATION				
Normal	Borderline Normal	Borderline Abnormal	Abnormal	No classification
1	0	0	83	2

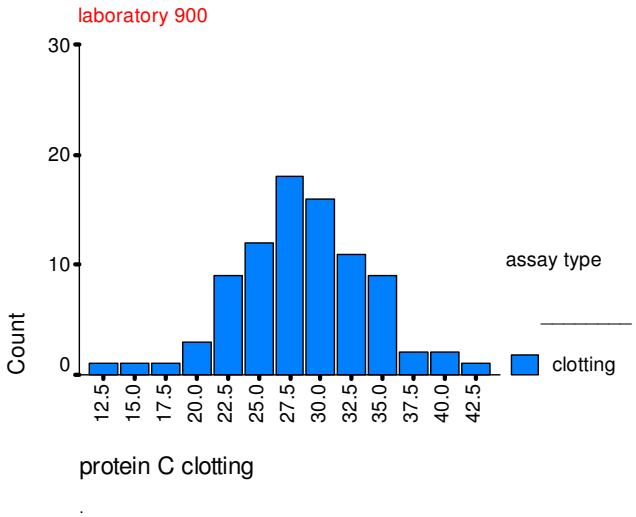
Labcode: 900

	Description	Number of responders
250	American Diagnostica Protac C	1
215	I.L. HemosIL Proclot C	9
245	Precision Biologic Cryocheck Clot C	7
201	Siemens / Dade-Behring Protein C Reagent (coagulometric)	27
225	Stago/Roche Staclot Protein C	36
203	Trinity / Biopool Bioclot Protein C	1
224	Trinity / Sigma Accuclot Protein C	1
290	Homemade	
299	Other / Unknown	4

Note: Detailed information is given for those methods that are used by at least 10 participants.

PROTEIN C ACTIVITY (%, IU/dl)





PROTEIN C ACTIVITY	n	mean	CV	Range	your result	z-score
Chromogenic	**224**	**25.5**	**10.4%**	**18 – 34**		
Berichrom (Dade Behring)	86	26.7	9.1%	19 – 34		
Coamatic (Chromogenix)	44	23.9	11.9%	18 – 34		
Prochrom C (IL)	16	23.4	9.3%	21 – 29		
Stachrom (Stago/Roche)	55	25.1	6.1%	21 – 29		
Clotting	**86**	**28.6**	**18.5%**	**13 – 42**		
Dade Behring Protein C	27	30.4	18.2%	13 – 42		
Staclot (Stago/Roche)	36	30.1	13.0%	23 - 39		

Remarks: The methods for the measurement of protein C clotting activity showed a higher between-laboratory variation than the chromogenic methods.

Labcode: **900**

PROTEIN C ANTIGEN

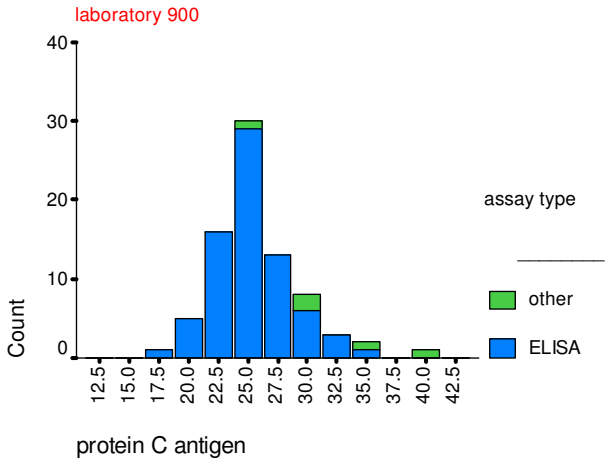
No. of Responders	Participation rate	Outliers	Labcode
80	26%	1.3%	972

CLASSIFICATION				
Normal	**Borderline Normal**	**Borderline Abnormal**	**Abnormal**	**No classification**
1	0	0	79	0

Method Code	Description	Number of responders
301	Affinity Biologicals PC-EIA set	
300	Am. Diagnostica Rellplate C	
303	BioMerieux Vidas Protein C	18
312	Corgenix / Reaads PC antigen	8
330	DG-EIA-PC	3
307	ELISARA Protein C	
335	Enzyme Research Laboratory	
304	Helena Biosciences PC Elisa	6
306	Helena Protein C (Laurell)	2
308	Hyphen-Biomed Zymutest Protein C	1
305	Immuno Prot. C (laurell)	
315	Stago / Roche Asserachrom Protein C	30
316	Stago / Roche Asseraplate Protein C	
318	Technoclone Protein C antigen	
320	The Binding Site Protein C antigen	3
389	Homemade (Affinity Biological Ab)	
390	Homemade (DAKO antibodies)	8
391	Homemade (other)	
399	Other / Unknown	1

Note: Detailed information is given for those methods that are used by at least 10 participants.

PROTEIN C ANTIGEN (%, IU/dl)



Labcode: 900

PROTEIN C ANTIGEN	N	Mean	CV	range	your result	z-score
Total group	**78**	**25.5**	**13.2%**	**17 – 36**		
ELISA	**74**	**25.2**	**12.3%**	**17 – 34**		
Vidas PC (Biomerieux)	18	25.7	7.2%	22 – 30		
Asserachrom (Stago/Roche)	30	24.6	12.8%	20 - 32		

Remarks: One participant reported a result in mg/dL. This result was excluded from the statistical analysis.
The between-laboratory variation for the Vidas PC method group is significantly lower in comparison to the Asserachrom method group and the whole ELISA-group.

Labcode: 900

PROTEIN S

Test plasma : 09.48

Type of plasma : **Coagulation Control Normal (Technoclone, lot no. 1P8PAC0)**

Former used in exercise : -

TOTAL PROTEIN S ANTIGEN

No. of Responders	Participation rate	Outliers	Labcode
94	30%	2.1%	937 , 9907258

CLASSIFICATION				
Normal	Borderline Normal	Borderline Abnormal	Abnormal	No classification
90	2	1	1	0

Method Code	Description	Number of responders
460	Aesculisa Total Protein S	1
450	Affinity Biologicals PS-EIA set	
400	American Diagnostica Rellplate S	
417	Coregenix / Reeads Total Protein S	12
444	DG-EIA Prot. S total	4
412	ELISARA Total Protein S	
416	Enzyme Research Laboratories Protein S kit	1
403	Helena Biosciences Rocket Plate Protein S	1
404	Helena Biosciences PS Elisa	
406	Hyphen Biomed Zymutest total Protein S	2
405	Immuno Protein S (Laurell)	
420	Stago/Roche Asserachrom Protein S	33
423	Stago/Roche Liatest Protein S	27
427	Technoclone Total PS	
430	The Binding Site total PS	
489	Homemade (Affinity Biologicals Ab)	
490	Homemade (DAKO antibodies)	11
491	Homemade	
499	Unknown	12

Note: Detailed information is given for those methods that are used by at least 10 participants.

FREE PROTEIN S ANTIGEN

No. of Responders	Participation rate	Outliers	Labcode
228	73%	0.9%	538 , 566

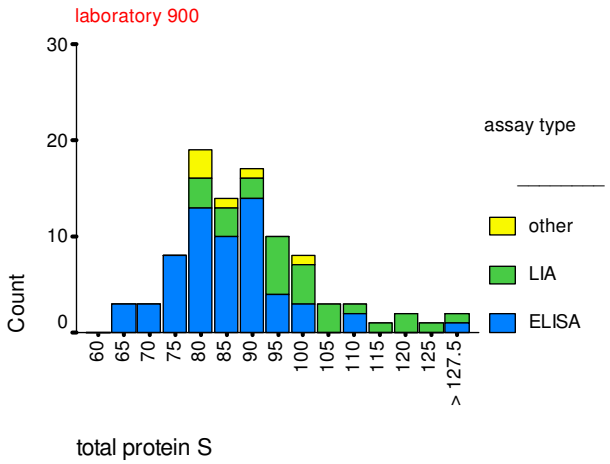
Labcode: 900

CLASSIFICATION				
Normal	**Borderline Normal**	**Borderline Abnormal**	**Abnormal**	**No classification**
224	0	0	2	2

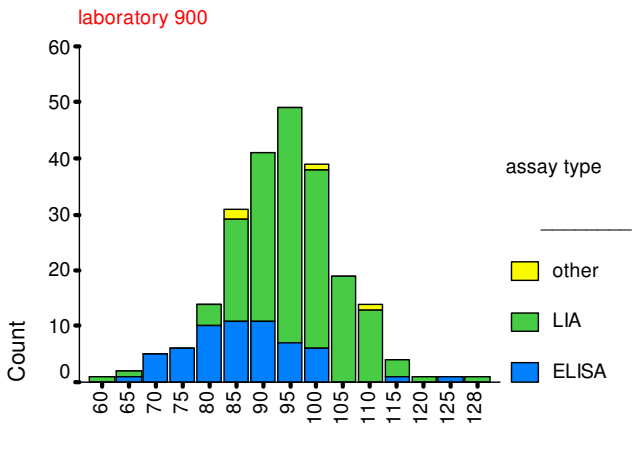
Method Code	Description	Number of responders
400	Am. Diagnostica Rellplate S	
401	Chromogenix Coaliza Free Protein S	5
417	Coregenix / Reeads Total Protein S	1
418	Corgenix / Reeads Free Protein S	6
444	DG-EIA Prot. S total	2
445	DG-EIA Protein S Free	5
402	Diagnostik International Free Protein S	
411	ELISARA Free Protein S	
403	Helena Biosciences Rocket Plate Protein S	1
404	Helena Biosciences PS Elisa	1
406	Hyphen Biomed Zymutest total Protein S	
407	Hyphen Biomed Free Protein S	2
408	IL HemosIL Free Protein S	81
405	Immuno Protein S (Laurell)	
422	Stago/Roche Liatest Free Protein S	80
423	Stago/Roche Liatest Protein S	2
424	Stago/Roche Asserachrom Free Protein S	35
431	The Binding Site Free Protein S	
410	Trinity / Biopool Imulyse Free Protein S	1
489	Homemade (Affinity Biologicals Ab)	
490	Homemade (DAKO antibodies)	3
491	Homemade	
499	Other / Unknown	3

Note: Detailed information is given for those methods that are used by at least 10 participants.

PROTEIN S (TOTAL AND FREE ANTIGEN) (%, IU/dl)



total protein S



free protein S (% of free PS)

Labcode: 900

TOTAL PROTEIN S	n	mean	CV	Range	your result	z-score
Total group	**92**	**88.4**	**13.6%**	**65 – 125**		
ELISA	**60**	**84.3**	**11.2%**	**65 – 110**		
Total Protein S (Corgenix / Reeads)	12	84.0	9.8%	65 – 99		
Asserachrom (Stago/Roche)	33	82.9	11.7%	65 – 109		
Home made (DAKO)	26	84.0	5.3%	76 - 91		
LIA (Liatest (Stago/Roche))	**26**	**98.4**	**12.5%**	**78 – 125**		

Remarks: The low between-laboratory CV for the home-made assay group is remarkable.

FREE PROTEIN S	n	mean	CV	Range	your result	z-score
FREE PROTEIN S (% free protein S standard)	**226**	**93.5**	**10.7%**	**63 – 125**		
ELISA	**59**	**86.4**	**12.6%**	**63 – 125**		
Asserachrom (Stago/Roche)	35	85.4	10.5%	63 – 100		
LIA	**163**	**96.1**	**8.6%**	**65 – 122**		
Free PS (I.L.)	80	95.5	9.6%	65 – 122		
Liatest (Stago/Roche)	79	96.6	7.4%	79 - 112		

Remarks: The between-laboratory variation is lower for the LIA test group than for the ELISA test group.

PROTEIN S ACTIVITY

No. of Responders	Participation rate	Outliers	Labcode
147	47%	1.4%	111 , 967

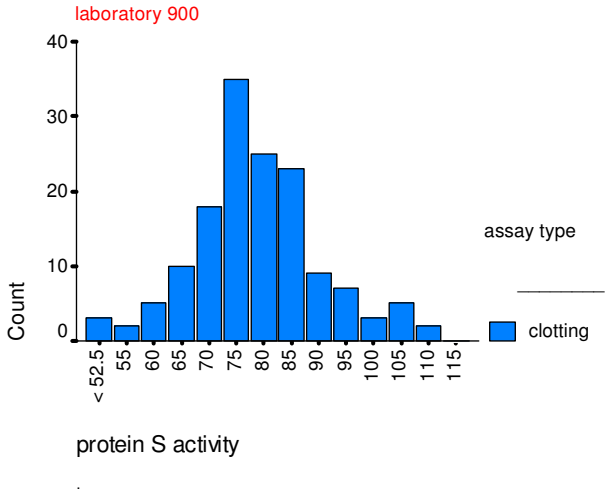
CLASSIFICATION				
Normal	**Borderline Normal**	**Borderline Abnormal**	**Abnormal**	**No classification**
128	8	5	5	1

Labcode: 900

Method Code	Description	Number of responders
630	American Diagnostica Protein S	
602	Bayer Staclot Protein S	
604	Helena Protein S	
605	I.L. HemosIL ProS	15
610	Nobis Protein S	
615	Precision Biologic Cryocheck Clot S	5
640	Renam Protein S	
601	Siemens / Dade Behring Protein S Ac	40
620	Stago / Roche Staclot Protein S	85
603	Trinity / Biopool Bioclot Protein S	
690	Homemade	
699	Other / Unknown	2

Note: Detailed information is given for those methods that are used by at least 10 participants.

PROTEIN S (ACTIVITY) (%, IU/dl)



	n	mean	CV	Range	your result	z-score
PROTEIN S ACTIVITY	**145**	**79.2**	**14.1%**	**46 – 109**		
Protein S Ac (Dade Behring)	39	72.5	12.7%	57 – 100		
PS (I.L.)	15	95.9	12.7%	66 – 109		
Staclot (Stago/Roche)	84	79.8	10.8%	46 - 101		

Remarks: -

Labcode: 900

APC RESISTANCE TEST

Test plasma : 09.49

Type of plasma : **Coagulation Control Normal (Technoclone, lot no. 1P8PAC0)**

Former used in exercise : -

APC RESISTANCE RATIO (without Factor V deficient plasma)

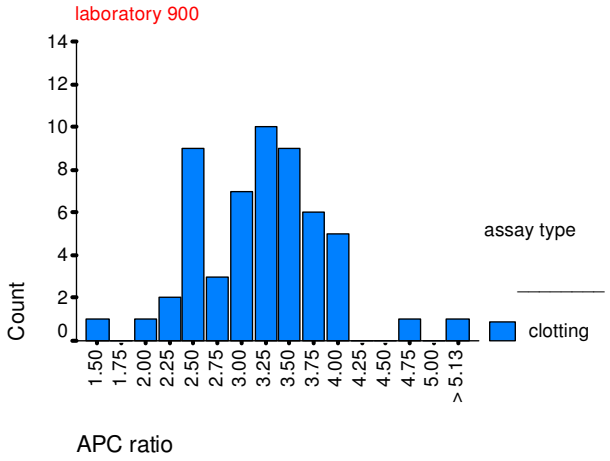
No. of Responders	Participation rate	Outliers	Labcode
59	19%	-	-

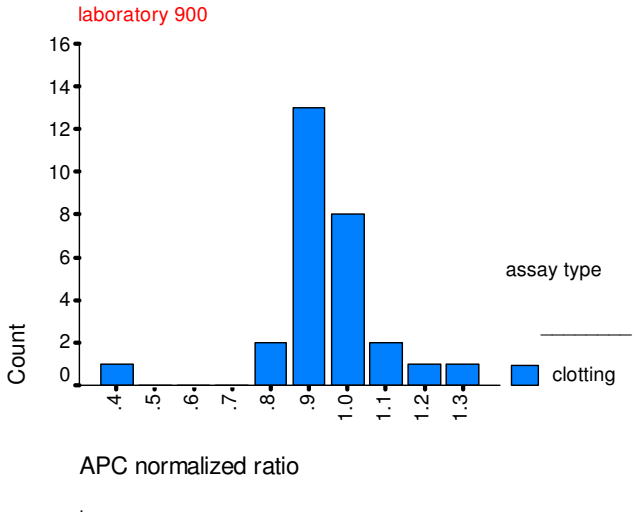
CLASSIFICATION				
Normal	**Heterozygous FV Leiden**	**Homozygous FV Leiden**	**Abnormal**	**No classification**
55			4	

Method Code	Description	Number of responders
503	American Diagnostica APC	2
510	Chromogenix / IL Coatest APC Resistance	16
511	Chromogenix / IL Coatest APC Resistance V	4
512	Chromogenz Inactivation Test	
530	DG-Clot aPCV	
535	Diagen PCA kit	
545	Enzyme Research Laboratories APCR	
514	Helena APC sensitivity	
516	Hemoclot Quanti Factor V-L	
540	Hyphen-Biomed APCR	
541	Hyphen-Biomed Hemoclot V-L	1
515	Immunochrom APC-Response	
513	Life Diagnostics GradiLeiden V kit	4
518	Pentapharm Pefakit APC-R FVL	2
547	Precision Biologic CryoCheck Clot APCR	
520	REA-Clot APC-R (V)	
550	Renam APC	
501	Siemens / Dade Behring ProC Ac R	20
500	Siemens / Dade Behring ProC Global / FV (with deficient plasma)	5
700	Siemens / Dade Behring ProC Global	
525	Stago Staclot APC-R	
502	Trinity / Biopool Bioclot aPC sensitivity	2
505	Trinity / Biomerieux Accelerimat APC	
506	Trinity / Biomerieux APCR Quick Test	
590	Homemade	2
599	Other / Unknown	1

Remark: Because there are significant differences in the observed APC ratio in the different methods used by the participants we include detailed information of all different methods used. Only for those methods used by at least 10 participants a CV and Z-score was calculated.
It seems that some participants their results for the APC Resistance test with the use of Factor V deficient plasma in the group of users without the use of Factor V deficient plasma.
Please notice to report your results in the correct group!

Labcode: 900





APC ratio	n	mean	CV	Range	your result	z-score
Total group	**55**	**3.23**	**24.5%**	**1.34 – 6.90**		
APC (American Diagnostica)	2	2.21		2.01 – 2.40		
Coatest APCR (Chromogenix / IL)	16	3.25	12.3%	2.57 – 4.00		
Coatest APCR-V (Chromogenix / IL)	4	2.66		2.26 – 3.10		
GradiLeiden V kit (Gradipore)	3	3.19		2.75 – 3.81		
Hemoclot V-L (Hyphen-Biomed)	1	2.56				
Pefakit APC-R FVL (Pentapharm)	2	4.36		3 89 – 4.82		
CryoCheck Clot APCR (Precision Biologic)						
ProC Global / FV (Siemens/Dade Behring)	2	2.50		2.43 – 2.57		
ProC Ac R (Siemens/Dade Behring)	20	3.26	18.4%	1.34 – 3.90		
APCR Quick test (Trinity / Biomerieux)						
Bioclot APC sensitivity (Trinity / Biopool)	2	5.04		3.18 – 6.90		
Homemade	2	3.17		2.24 – 4.10		
Other	1	3.10				

APC normalised ratio	**28**	**0.94**	**16.0%**	**0.43 – 1.30**		

Remarks: -

Labcode: 900

APC RESISTANCE RATIO (with Factor V deficient plasma)

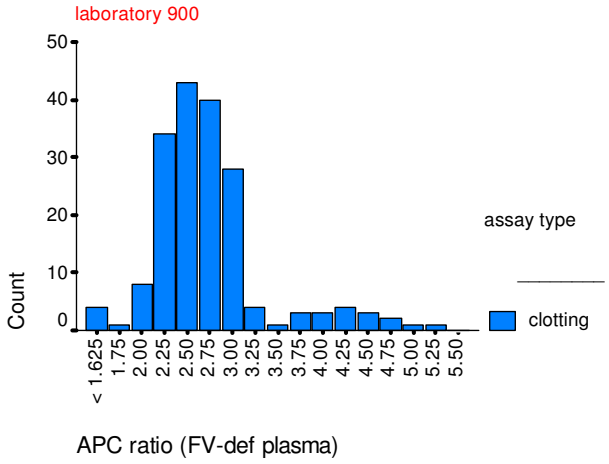
No. of Responders	Participation rate	Outliers	Labcode
201	64%	0%	-

CLASSIFICATION				
Normal	Heterozygous FV Leiden	Homozygous FV Leiden	Borderline	No classification
194			5	2

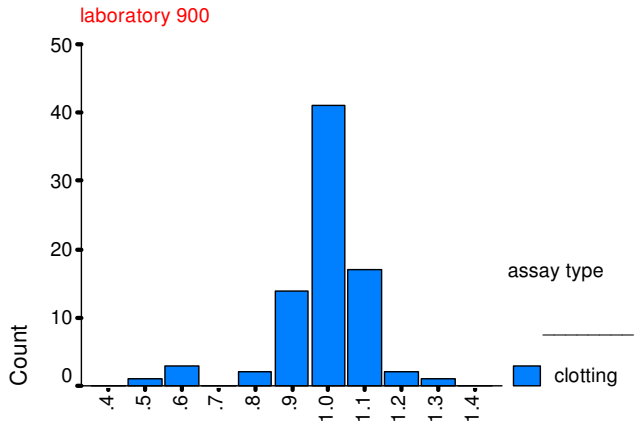
Method Code	Description	Number of responders
503	American Diagnostica APC	
510	Chromogenix / IL Coatest APC Resistance	6
511	Chromogenix / IL Coatest APC Resistance V	127
512	Chromogenz Inactivation Test	
530	DG-Clot aPCV	
535	Diagen PCA kit	
545	Enzyme Research Laboratories APCR	
514	Helena APC sensitivity	
516	Hemoclot Quanti Factor V-L	
540	Hyphen-Biomed APCR	
541	Hyphen-Biomed Hemoclot V-L	2
515	Immunochrom APC-Response	
513	Life Diagnostics GradiLeiden V kit	
518	Pentapharm Pefakit APC-R FVL	18
547	Precision Biologic CryoCheck Clot APCR	
520	REA-Clot APC-R (V)	2
550	Renam APC	
501	Siemens / Dade Behring ProC Ac R	1
500	Siemens / Dade Behring ProC Global / FV (with deficient plasma)	21
525	Stago Staclot APC-R	15
502	Trinity / Biopool Bioclot aPC sensitivity	
505	Trinity / Biomerieux Accelerimat APC	
506	Trinity / Biomerieux APCR Quick Test	1
590	Homemade	6
599	Other / Unknown	2

Note: Because there are significant differences in the observed APC ratio in the different methods used by the participants we include detailed information of all different methods used. Only for those methods used by at least 10 participants a CV and Z-score was calculated.

Labcode: 900



APC ratio (FV-def plasma)



APC normalized ratio (FV-def)

APC ratio (using FV-def. plasma)	**n**	**mean**	**CV**	**Range**	**your result**	**z-score**
Total group	**180**	**2.72**	**23.9%**	**0.49 – 5.31**		
Coatest APCR (Chromogenix / IL)	6	2.73		2.25 – 3.10		
Coatest APCR-V (Chromogenix / IL)	125	2.63	13.3%	1.60 – 4.90		
APCr (ERL)						
APC Sensitivity (Helena)						
Hemoclot V-L (Hyphen-Biomed)	1	2.12				
Pefakit APC-R FVL (Pentapharm)	18	3.89	20.3%	2.43 – 5.31		
CryoCheck Clot APCR (Precision Biologic)						
REA-clot APC-R	2	2.99		2.99 – 2.99		
Renam APC						
ProC Global (APC specific) (Siemens / Dade Behring)	18	1.96	29.6%	0.49 – 2.60		
ProC APCR (Siemens / Dade Behring)	1	4.60				
APCR Quick test (Trinity / Biomerieux)	1	2.84				
Homemade	6	2.92		2.10 – 4.20		
Other	2	3.16		2.81 – 3.50		
APC normalised ratio (using FV-def. plasma)	**81**	**0.99**	**13.1%**	**0.51 – 1.30**		

APC-R Stago (sec) (using FV-def. plasma)	15	168.4	9.7%	143.9 – 195.0		

COAGULATION FACTOR MODULE I
LABORATORY CODE NUMBER: 900

Plasmas used : **09.54 Plasma with elevated Factor XI level**
09.55 Coagulation Control Borderline (Technoclone, lot. No. 1B91A00)

Former used in exercise : 09.54 2009-2
09.55 -

Remark
Sample 09.54 was the same sample as sample 09.29 in survey 2009-2. It was not meant to send this sample again. However, due to a logistic error this sample was selected for distribution again. We apologize for this mistake. Nevertheless it is interesting that again only 1/3 of the participants indicated a problem with this sample. The plasma behaves like a lupus positive sample. We have evaluated in detail the reagents used by those participants that reported a problem with this sample. The majority of those participants had used one of the following reagents: SynthASil (IL), Actin FS (Siemens), Actin FSL (Siemens) and PTT Automate/STA APTT (Stago). This does not mean that no interference with other reagent was observed.
It is not clear why the participants did not report a problem with this sample. Do these laboratories do not use multiple dilutions for factor testing?
For sample 09.54 no outlier procedure was performed and no Z-score was calculated. Even the classification was not reported.

Clotting Factor	Sample	No. of Responders	Participation rate	Outliers	Labcode
VIII	09.54	194	92%	-	-
	09.55	194	92%	2.1%	158 , 231 , 351 , 912
IX	09.54	181	85%	-	-
	09.55	183	86%	2.2%	158 , 324 , 351 , 397
XI	09.54	173	82%	-	-
	09.55	173	82%	1.2%	566 , 917
XII	09.54	174	82%	-	-
	09.55	174	82%	1.7%	125 , 351 , 952

		CLASSIFICATION				
Clotting Factor	Sample	Normal	Borderline Normal	Borderline abnormal	Abnormal	No classification
VIII	09.54	-	-	-	-	-
	09.55	13	9	36	126	10
IX	09.54	-	-	-	-	-
	09.55	52	29	30	66	6
XI	09.54	-	-	-	-	-
	09.55	9	12	33	112	7
XII	09.54	-	-	-	-	-
	09.55	42	21	33	72	6

Remarks: Because of the borderline type of sample, sample 09.55 showed a heterogeneous pattern for the classification.

Labcode: 900

The table below shows the type activators used by the participants.

Method Code	Description	FVIII	FIX	FXI	FXII
8012	Axis-Shield Cephotest			1	1
8024	Diagen KPS				
8026	Diagnostic Grifols APTT-L				
8070	Erilyd Kaolin				
8027	Helena Laboratories APTT-SA		1	1	1
8028	Hemoliance Synthasil APTT				1
8029	Hemoliance Thrombosil				
8075	Hyphen Biomed Cephen 2.5			1	
8033	IL HemosIL APTT-HS	1	1	1	1
8035	IL HemosIL APTT lyophilised silica	2	2	2	2
8030	IL HemosIL APTT-SP liquid silica	13	11	9	10
8031	IL HemosIL APTT-SP lyophilised silica	1	1	1	1
8032	IL HemosIL Synthasil	15	15	13	12
8088	IL HemosIL SynthAsil				
8034	Immuno Dapttin				1
8065	Pacific Hemostasis APTT-XL				
8020	Siemens / Dade Behring Actin FS	24	23	22	24
8022	Siemens / Dade Behring Actin FSL	24	25	24	22
8021	Siemens / Dade Behring Pathromtin SL	21	23	21	20
8052	Sigma APTT				
8054/8057	Stago /Roche Cephalin / Kaolin - CKPrest	21	19	17	30
8058	Stago / Roche Cephascreen	2	3	3	
8056	Stago / Roche PTT automate	21	20	21	14
8059	Stago / Roche PTT-LA	1	1		
8061	Stago / Roche PTT-LT				
8062	Stago / Roche STA APTT	7	7	7	3
8013	Trinity Alexin				
8046	Trinity / BioMerieux Automated APTT	4	4	4	4
8010	Trinity / BioMerieux Hemolab Silimat				
8047	Trinity / BioMerieux MDA / Platelin L	4	4	5	4
8044	Trinity / BioMerieux Platelin L	4	4	3	4
8045/8017	Trinity Platelin LS / Triniclot APTT-HS	10	13	13	14
8014	Trinity / Biopool APTT-EA				
8015	Trinity / Biopool APTT-P				
8017	Trinity Biotech TriniClot APTT HS				
8099	Other/ Unknown	8	6	4	5

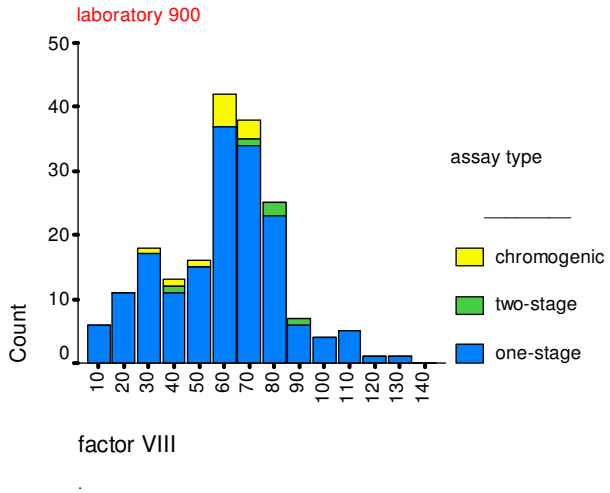
The table below shows the methods used by the participants for the Factor VIII chromogenic assays.

Method Code	Description	Number of responders
8001	Chromogenix Coamatic Factor VIII	6
8002	Chromogenix Coatest Factor VIII	2
8004	Hemoliance Factor VIII	1
8005	Hyphen Biomed. Biophen Factor VIII	
8006	Siemens / Dade Behring	
8003	Technoclone Factor VIII	1
8000	Trinity / Biopool Spectrolyse Factor VIII:C	
8090	Homemade	
8099	Other / Unknown	1

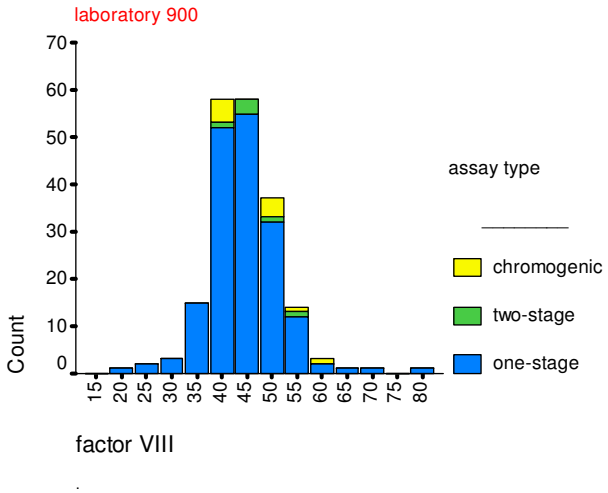
Remarks: Detailed information is given for those methods that are used by at least 10 participants.

Labcode: 900

Factor VIII (IU/ml /%)
(Test plasma **09.54**)



Factor VIII (IU/ml /%)
(Test plasma **09.55**)



Factor VIII (plasma 09.54)	**n**	**mean**	**CV**	**range**	**your result**	**z-score**
total group	**187**	**59.3**		**1 – 130**		
One-stage Clotting Assay	**171**	**59.1**		**1 – 130**		
Chromogenic	**11**	**56.7**		**30 – 72**		

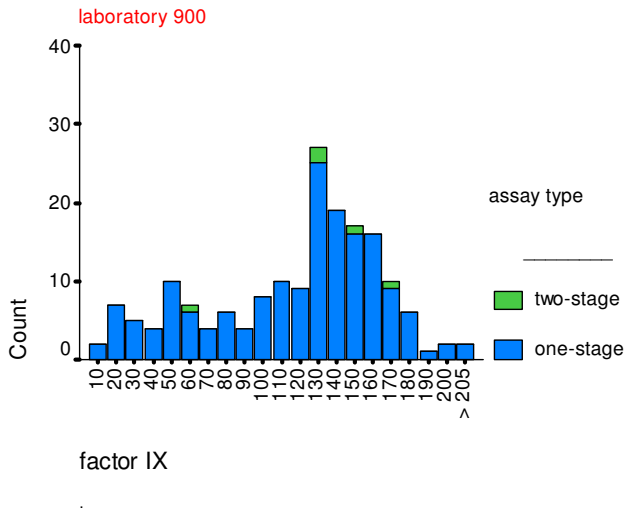
Activator	**n**	**mean**	**CV**	**Range**	**your result**	**z-score**
HemosIL APTT-SP liq. sil. (IL)	11	54.0		1 – 89		
HemosIL Synthasil (IL)	15	51.7		17 – 100		
Actin FS (Siemens)	21	38.2		10 – 82		
Actin FSL (Siemens)	23	64.5		37 – 105		
Pathromtin SL (Siemens)	21	62 7		17 – 89		
PTT Automate./STA APTT (Stago)	20	56.8		14 – 130		
Ceph./Kaolin - CKPrest (Stago)	21	73.7		59 – 110		
TriniClot APTT HS (Trinity)	10	81.4		33 – 120		

Factor VIII (plasma 09.55)	**n**	**mean**	**CV**	**Range**	**your result**	**z-score**
total group	**190**	**44.4**	**13.5%**	**24 – 63**		
One-stage Clotting Assay	**173**	**44.2**	**13.5%**	**24 – 63**		
Chromogenic	**11**	**46.7**	**14.8%**	**40 – 61**		

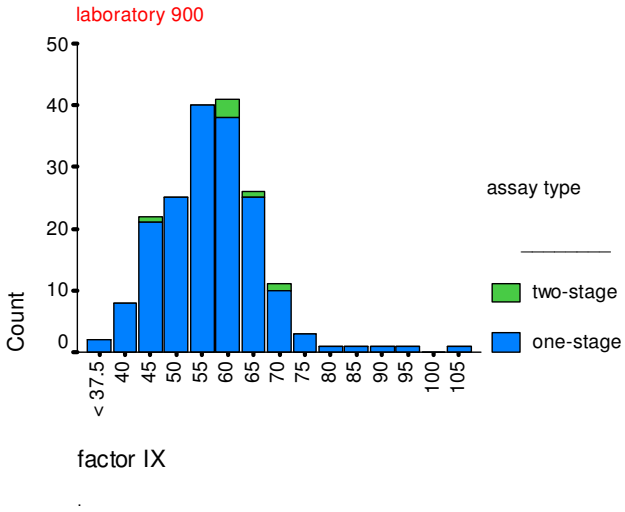
Activator	**N**	**mean**	**CV**	**Range**	**your result**	**z-score**
HemosIL APTT-SP liq. sil. (IL)	13	45.9	13.5%	36 – 56		
HemosIL Synthasil (IL)	15	44.1	16.9%	35 – 63		
Actin FS (Siemens)	24	43.8	9.1%	36 – 56		
Actin FSL (Siemens)	23	41.4	15.7%	24 – 54		
Pathromtin SL (Siemens)	20	41.8	15.0%	34 – 62		
PTT Automate./STA APTT (Stago)	21	47.9	9.3%	41 - 56		
Ceph./Kaolin - CKPrest (Stago)	21	45.8	13.2%	32 – 59		
TriniClot APTT HS (Trinity)	10	42.5	17.2%	29 – 51		

Labcode: 900

Factor IX (IU/ml /%) (Test plasma **09.54**)



Factor IX (IU/ml /%) (Test plasma **09.55**)



Factor IX (plasma 09.54)	n	mean	CV	range	your result	z-score
total group	**176**	**116.6**		**0 – 252**		
One-stage Clotting Assay	**171**	**116.2**		**0 – 252**		

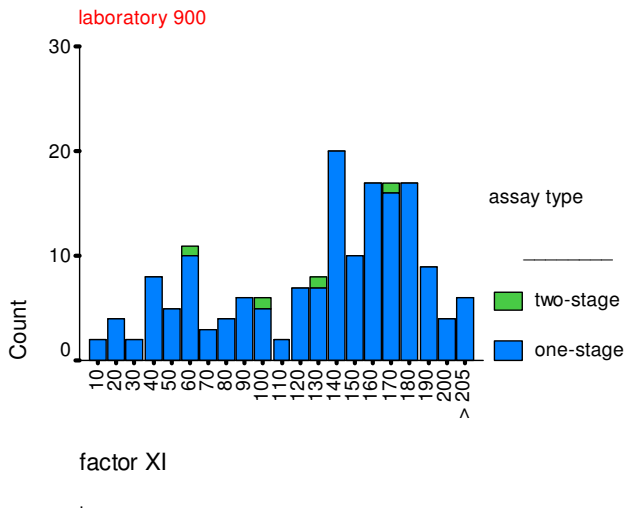
Activator	n	mean	CV	Range	your result	z-score
HemosIL APTT-SP liq. sil. (IL)	9	106.1		0 – 179		
HemosIL Synthasil (IL)	14	71.2		19 – 145		
Actin FS (Siemens)	20	103.0		24 – 194		
Actin FSL (Siemens)	24	127.0		50 – 199		
Pathromtin SL (Siemens)	23	109.7		4 – 147		
PTT Automate./STA APTT (Stago)	20	105.0		34 – 174		
Ceph./Kaolin - CKPrest (Stago)	19	158.4		97 – 252		
TriniClot APTT HS (Trinity)	13	145.2		78 – 177		

Factor IX (plasma 09.55)	n	mean	CV	Range	your result	z-score
total group	**179**	**56.5**	**15.0%**	**34 – 83**		
One-stage Clotting Assay	**173**	**56.4**	**15.1%**	**34 – 83**		

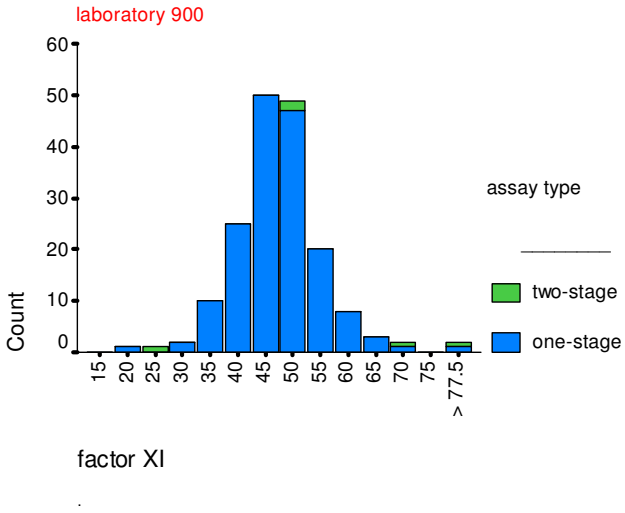
Activator	n	mean	CV	Range	your result	z-score
HemosIL APTT-SP liq. sil. (IL)	11	64.1	15.4%	48 – 83		
HemosIL Synthasil (IL)	14	60.5	12.7%	48 – 80		
Actin FS (Siemens)	23	55.4	10.3%	41 – 64		
Actin FSL (Siemens)	25	52.2	13.5%	38 – 69		
Pathromtin SL (Siemens)	21	48.4	13.8%	34 – 62		
PTT Automate./STA APTT (Stago)	20	62.0	11.0%	45 – 75		
Ceph./Kaolin - CKPrest (Stago)	19	58.1	13.5%	39 – 69		
TriniClot APTT HS (Trinity)	13	53.1	13.3%	38 – 61		

Labcode: 900

Factor XI (IU/ml /%) (Test plasma **09.54)**



Factor XI (IU/ml /%) (Test plasma **09.55**)



Factor XI (plasma 09.54)	n	mean	CV	range	your result	z-score
total group	**168**	**131.2**		**1 – 330**		
One-stage Clotting Assay	**164**	**131.6**		**1 – 330**		

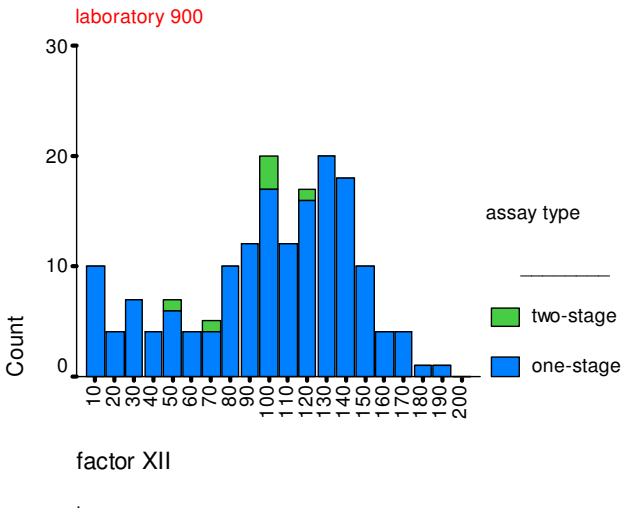
Activator	n	mean	CV	Range	your result	z-score
HemosIL APTT-SP liq. sil. (IL)	7	133.3		1 – 240		
HemosIL Synthasil (IL)	13	92.2		33 – 200		
Actin FS (Siemens)	20	126.7		31 – 219		
Actin FSL (Siemens)	23	149.2		78 – 188		
Pathromtin SL (Siemens)	21	126.8		2 – 182		
PTT Automate./STA APTT (Stago)	21	109.1		19 – 182		
Ceph./Kaolin - CKPrest (Stago)	17	171.9		107 – 330		
TriniClot APTT HS (Trinity)	13	158.1		91 – 257		

Factor XI (plasma 09.55)	n	mean	CV	Range	your result	z-score
total group	**171**	**47.2**	**15.6%**	**20 – 71**		
One-stage Clotting Assay	**167**	**47.1**	**15.0%**	**20 – 71**		

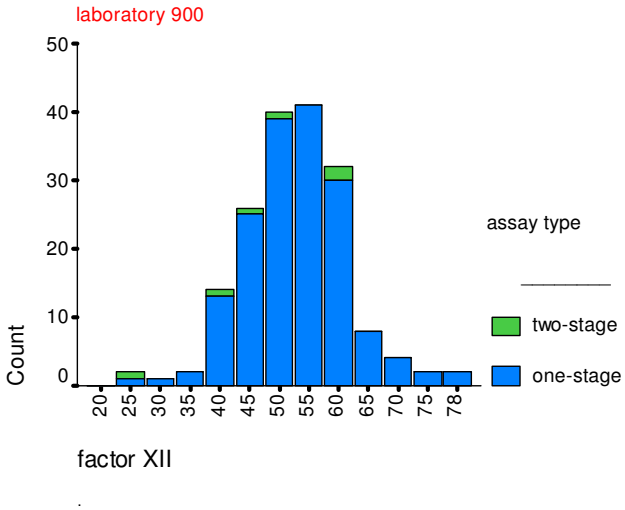
Activator	N	mean	CV	Range	your result	z-score
HemosIL APTT-SP liq. sil. (IL)	9	55.7	14.4%	46 – 68		
HemosIL Synthasil (IL)	12	50.8	9.4%	44 – 59		
Actin FS (Siemens)	22	47.3	11.7%	36 – 58		
Actin FSL (Siemens)	24	44.6	15.1%	31 – 59		
Pathromtin SL (Siemens)	21	45.5	23.3%	25 – 71		
PTT Automate./STA APTT (Stago)	21	49.7	12.4%	39 - 61		
Ceph./Kaolin - CKPrest (Stago)	16	45.8	9.3%	39 – 52		
TriniClot APTT HS (Trinity)	13	46.6	12.3%	37 – 56		

Labcode: 900

Factor XII (IU/ml /%) (Test plasma **09.54**)



Factor XII (IU/ml /%) (Test plasma **09.55**)



Factor XII (plasma 09.54)	n	mean	CV	Range	your result	z-score
total group	**170**	**99.4**		**0 – 186**		
One-stage Clotting Assay	**164**	**99.7**		**0 – 186**		

Activator	n	mean	CV	Range	your result	z-score
HemosIL APTT-SP liq. sil. (IL)	10	77.2		0 – 147		
HemosIL Synthasil (IL)	12	73.2		22 – 130		
Actin FS (Siemens)	21	68.4		10 – 134		
Actin FSL (Siemens)	21	115.9		65 – 170		
Pathromtin SL (Siemens)	20	94.7		1 – 147		
PTT Automate./STA APTT (Stago)	14	96.5		33 – 171		
Ceph./Kaolin - CKPrest (Stago)	30	109.4		1 – 162		
TriniClot APTT HS (Trinity)	14	136.4		56 – 186		

Factor XII (plasma 09.55)	n	mean	CV	Range	your result	z-score
total group	**171**	**52.5**	**15.0%**	**26 – 74**		
One-stage Clotting Assay	**165**	**52.7**	**14.5%**	**30 – 74**		

Activator	n	mean	CV	Range	your result	z-score
HemosIL APTT-SP liq. sil. (IL)	10	60.6	14.3%	41 – 73		
HemosIL Synthasil (IL)	12	53.9	12.2%	35 – 62		
Actin FS (Siemens)	24	51.7	11.1%	39 – 61		
Actin FSL (Siemens)	22	46.3	10.9%	37 – 57		
Pathromtin SL (Siemens)	20	49.1	20.6%	26 – 74		
PTT Automate./STA APTT (Stago)	14	56.6	12.8%	46 - 69		
Ceph./Kaolin - CKPrest (Stago)	30	53.9	11.6%	40 – 68		
TriniClot APTT HS (Trinity)	14	52.8	11.4%	44 - 66		

COAGULATION FACTOR MODULE II
LABORATORY CODE NUMBER: 900

Plasmas used : **09.56 Coagulation Control AK (Technoclone, lot no. 2B71ARV)**
09.57 Coagulation Control Borderline (Technoclone, lot. No. 1B91A00)

Former used in exercise : 09.56 2009-1
09.57 -

Clotting Factor	Sample	No. of Responders	Participation rate	Outliers	Labcode
II	09.56	157	86%	0.6%	118
	09.57	157	86%	0.6%	426
V	09.56	165	90%	1.2%	118 , 231
	09.57	165	90%	0.6%	231
VII	09.56	163	89%	0.6%	118
	09.57	163	89%	0.6%	114
X	09.56	160	87%	0.0%	-
	09.57	160	87%	0.0%	-

		CLASSIFICATION				
Clotting Factor	Sample	Normal	Borderline Normal	Borderline abnormal	Abnormal	No classification
II	09.56	1	0	1	152	3
	09.57	13	17	23	98	6
V	09.56	131	13	9	10	2
	09.57	14	11	24	113	3
VII	09.56	2	0	2	157	2
	09.57	18	17	20	105	3
X	09.56	1	2	1	154	2
	09.57	5	10	30	113	2

Remarks: Sample 09.56 is classified correctly as abnormal for the clotting factors II, VII and X and normal for FV by the majority of the participants.
Sample 09.57, which is a borderline sample, showed a more heterogeneous pattern.

Labcode: 900

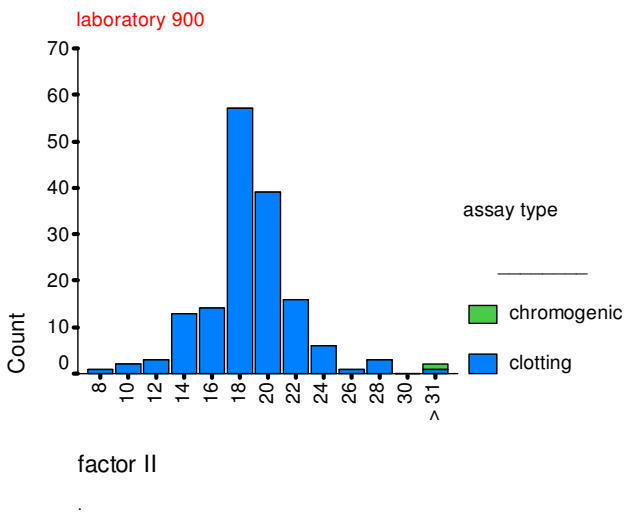
The table below shows the type activators used by the participants.

Method Code	Description	FII	FV	FVII	FX
7030	Diamed Diaplastin E				1
7034	Helena Bioscience Thromboplastin	2	1		1
7033	Hemoliance Recomi Plastin		1	1	2
7032	Hemoliance Thromboplastin				
7035	I.L. HemosIL PT-Fibrinogen				
7036	I.L. HemosIL PT-Fibrinogen - HS	3	2	2	2
7038	I.L. HemosIL PT-Fibr.-Recombinant	1	1	2	
7037	I.L. HemosIL Recombiplastin	26	26	26	25
7031	I.L. HemosIL Recombiplastin 2G	2	2	2	2
7039	MediRox Owren's PT				
7040	Nycomed Cephotest				1
7041	Nycomed Nycoplastin				
7045	Ortho Recombiplastin				
7055	Pacific Hemostasis Thromboplastin-DS				
7065	Renam Renamplastin				
7024	Siemens / Dade Behring Actin FS				
7025	Siemens / Dade Behring Innovin	35	43	41	37
7026	Siemens / Dade Behring Pathromtin SL	1	1	1	1
7027	Siemens / Dade Behring Thromboplastin C	3	2	2	2
7028	Siemens / Dade Behring Thromborel S	27	27	28	28
7029	Siemens / Dade Behring Actin FS		1		1
8021	Siemens / Dade Behring Pathromtin SL				
7051	Stago / Roche Neoplastin Ci			1	1
7052	Stago / Roche Neoplastin Ci Plus	43	46	44	44
7053	Stago / Roche Neoplastin R	1	3	2	2
7060	Technoclone Technoplastin HIS				
7010	Trinity / BioMerieux Isimat 1				
7015	Trinity / BioMerieux MDA Simplastin-L				
7011	Trinity / BioMerieux Nycoplastin				
7017	Trinity / BioMerieux Platelin L				1
7016	Trinity / BioMerieux Platelin LS		2		
7012	Trinity / BioMerieux Simplastin Excel S	1	1	1	1
7013	Trinity / BioMerieux Simplastin HTF	6	4	7	5
7014	Trinity / BioMerieux Thrombotest	1			
7020	Trinity / Biopool Thromboplastin-S				
7049	Trinity / Sigma ThromboMax HS				
7048	Trinity / Sigma Thromboplastin HS				
7090	Homemade	1	1	1	1
7099	Other / Unknown	3	1	2	2

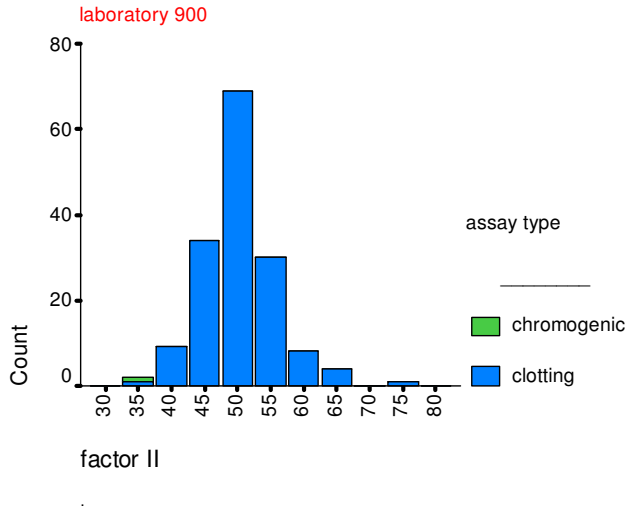
Remarks: Detailed information is given for those methods that are used by at least 10 participants.

Labcode: 900

Factor II (IU/ml /%) (Test plasma **09.56**)



Factor II (IU/ml /%) (Test plasma **09.57**)



Factor II (plasma 09.56)	**n**	**mean**	**CV**	**range**	**your result**	**z-score**
Total group	**156**	**18.2**	**19.7%**	**8 – 39**		

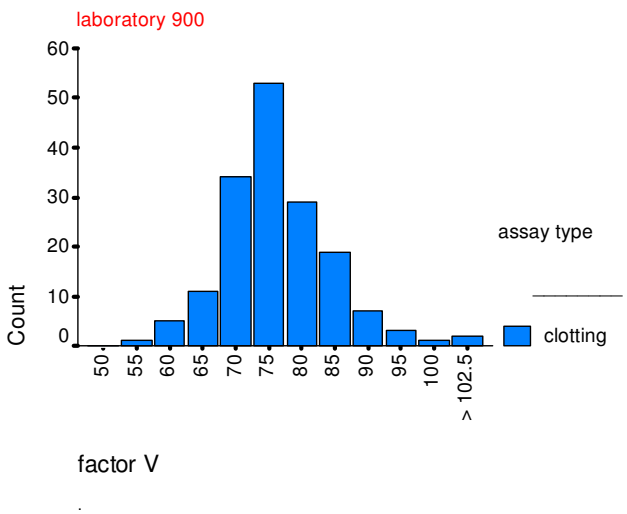
Activator	**n**	**mean**	**CV**	**Range**	**your result**	**z-score**
Recombiplastin (I.L.)	26	18.8	16.4%	13 – 28		
Innovin (Siemens)	35	18.5	15.2%	9 – 23		
Thromborel S (Siemens)	27	19.0	21.3%	11 – 27		
Neoplastin CI Plus (Stago)	42	17.9	9.7%	14 – 22		

Factor II (plasma 09.57)	**n**	**mean**	**CV**	**Range**	**your result**	**z-score**
Total group	**156**	**49.8**	**10.5%**	**35 – 66**		

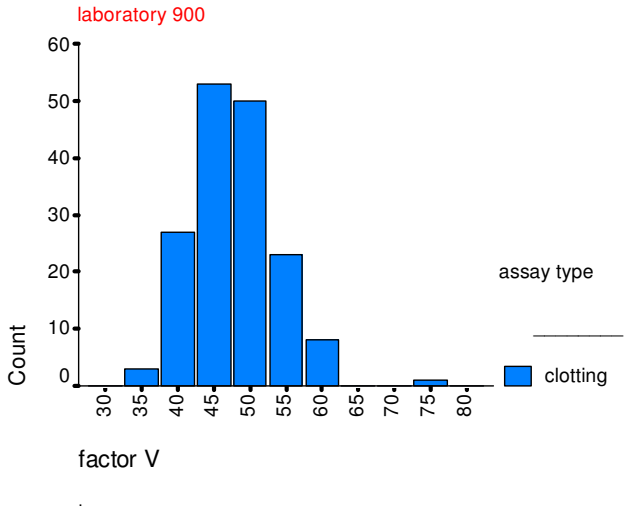
Activator	**N**	**mean**	**CV**	**Range**	**your result**	**z-score**
Recombiplastin (I.L.)	26	51.3	11.6%	37 – 63		
Innovin (Siemens)	35	49.7	10.5%	41 – 66		
Thromborel S (Siemens)	27	49.7	10.6%	39 – 64		
Neoplastin CI Plus (Stago)	43	50.0	8.0%	42 - 63		

Labcode: 900

Factor V (IU/ml /%) (Test plasma **09.56**)



Factor V (IU/ml /%) (Test plasma **09.57**)



Factor V (plasma 09.56)	**n**	**mean**	**CV**	**range**	**your result**	**z-score**
Total group	**163**	**75.8**	**9.8%**	**57 – 99**		

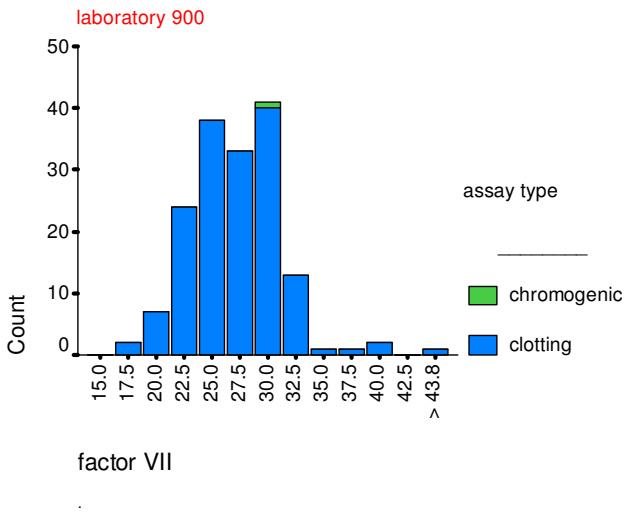
Activator	**n**	**mean**	**CV**	**Range**	**your result**	**z-score**
Recombiplastin (I.L.)	26	76.5	8.7%	62 – 90		
Innovin (Siemens)	43	79.1	9.2%	65 – 99		
Thromborel S (Siemens)	27	76.1	10.5%	62 – 94		
Neoplastin CI Plus (Stago)	45	73.0	8.3%	57 – 87		

Factor V (plasma 09.57)	**n**	**mean**	**CV**	**Range**	**your result**	**z-score**
Total group	**164**	**47.7**	**11.2%**	**35 – 62**		

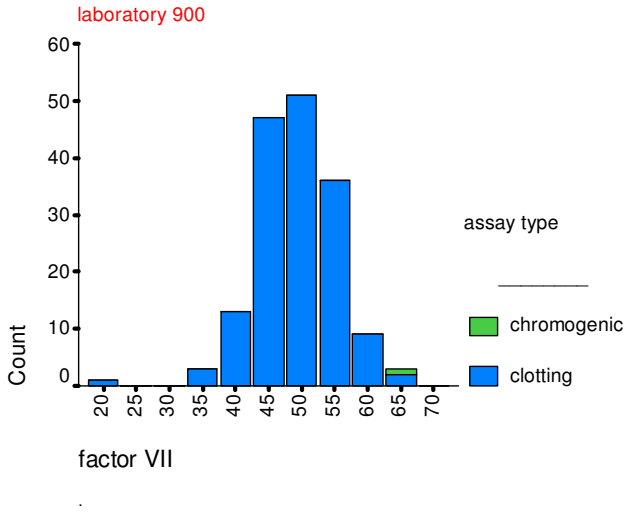
Activator	**n**	**mean**	**CV**	**Range**	**your result**	**z-score**
Recombiplastin (I.L.)	26	46.2	11.4%	38 – 58		
Innovin (Siemens)	43	50.7	9.0%	41 – 62		
Thromborel S (Siemens)	27	49.3	9.7%	41 – 59		
Neoplastin CI Plus (Stago)	46	45.2	9.6%	35 - 55		

Labcode: 900

Factor VII (IU/ml /%) (Test plasma **09.56)**



Factor VII (IU/ml /%) (Test plasma **09.57**)



Factor VII (plasma 09.56)	**n**	**mean**	**CV**	**range**	**your result**	**z-score**
Total group	**162**	**27.0**	**14.4%**	**17 – 40**		

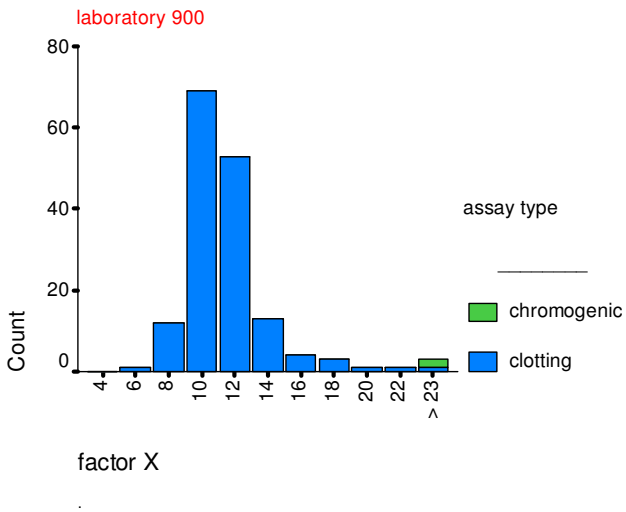
Activator	**n**	**mean**	**CV**	**Range**	**your result**	**z-score**
Recombiplastin (I.L.)	26	25.2	15.8%	18 – 40		
Innovin (Siemens)	41	28.7	11.0%	22 – 34		
Thromborel S (Siemens)	28	24.6	14.8%	17 – 33		
Neoplastin CI Plus (Stago)	43	27.7	9.2%	22 – 32		

Factor VII (plasma 09.57)	**n**	**mean**	**CV**	**Range**	**your result**	**z-score**
Total group	**162**	**49.7**	**11.7%**	**33 – 67**		

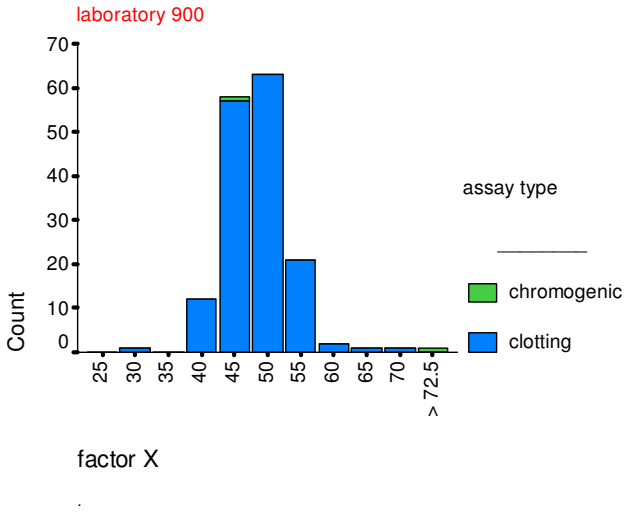
Activator	**n**	**mean**	**CV**	**Range**	**your result**	**z-score**
Recombiplastin (I.L.)	26	45.3	11.6%	35 – 61		
Innovin (Siemens)	41	50.0	9.5%	42 – 60		
Thromborel S (Siemens)	27	51.2	11.9%	41 – 67		
Neoplastin CI Plus (Stago)	44	51.4	7.3%	43 - 58		

Labcode: 900

Factor X (IU/ml /%) (Test plasma **09.56**)



Factor X (IU/ml /%) (Test plasma **09.57**)



Factor X (plasma 09.56)	n	mean	CV	range	your result	z-score
Total group	**158**	**11.0**	**23.4%**	**6 – 27**		

Activator	n	mean	CV	Range	your result	z-score
Recombiplastin (I.L.)	25	11.9	20.2%	10 – 22		
Innovin (Siemens / DB)	37	10.3	21.4%	7 – 21		
Thromborel S (Siemens / DB)	28	11.5	23.0%	7 – 18		
Neoplastin CI Plus (Stago/Roche)	43	10.3	10.5%	8 – 13		

Factor X (plasma 09.57)	n	mean	CV	Range	your result	z-score
Total group	**158**	**48.0**	**9.5%**	**32 – 65**		

Activator	n	mean	CV	Range	your result	z-score
Recombiplastin (I.L.)	25	48.4	9.9%	38 – 60		
Innovin (Siemens / DB)	37	49.3	9.4%	40 – 65		
Thromborel S (Siemens / DB)	28	47.4	10.1%	32 – 57		
Neoplastin CI Plus (Stago/Roche)	44	47.4	7.4%	40 – 56		

von WILLEBRAND FACTOR
LABORATORY CODE NUMBER: 900

Test plasma : 09.58

Type of plasma : **Coagulation Control Abnormal (Technoclone, lot no. 3P69000) (mimicking a VWD type I patient)**

Former used in exercise : -

Test	No. of Responders	Participation rate	Outliers	Labcode
vWF:Ag	204	90%	1.0%	426 , 916
vWF:RiCoF	187	82%	1.1%	466 , 583
vWF:CBA	50	22%	2.0%	932
vWF Multimers	35	15%		
FVIII:C	178	78%	1.7%	188 , 247 , 388

	CLASSIFICATION				
	Normal	Borderline Normal	Borderline abnormal	Abnormal	No classification
vWF:Ag	1	1	6	194	2
vWF:RiCoF	0	0	0	184	3
vWF:CBA	1	0	0	49	0
FVIII:C	2	0	2	169	5

vWF antigen

Method Code	Description	Number of responders
6000	ABP vWF assay	1
6001	American Diagnostica Rellplate vWF	
6002	American Diagnostica Immunobind vWF	1
6004	BioMerieux Vidas vWF	17
6045	Corgenix / Reaads vWF antigen	1
6015	DG-EIA vWF	3
6018	ELISARA Von Willebrand	
6035	Grifols DG-EIA vWF	4
6037	Helena Laboratories Rocket vWF Ag	1
6036	Helena Laborarories vWF AG	1
6005	I.L. / Chromogenix vWF	30
6038	IMTEC vWF	
6030	Life Daignostics vWF EIA	
6040	Ramco Laboratories Spectra vWF	1
6020	Roche / Stago Asserachrom vWF	6
6023	Roche / Stago Liatest vWF	80
6010	Siemens / Dade Behring vWF	39
6050	Technoclone vWF Ag	
6090	Homemade (DAKO antibodies)	14
6091	Homemade (Other)	2
6099	Other/ Unknown	3

Labcode: 900

vWF:RiCoF / Activity

Method Code	Description	Number of responders
6100	ABP vWF assay	3
6101	American Diagnostica vWF:RiCoF Elisa	1
6102	Axis-Shield vWFactivity assay	5
6105	Biodata vWF assay	5
6135	Corgenix / Reaads vWF activity	1
6108	Chronolog vWF assay	7
6115	DG vWF activity	1
6120	Hart Biological vWF assay	1
6125	Helena Laboratories vWF:RiCoF assay	8
6130	IL Latex vWF activity	44
6140	Shield Diagnostics vWF:RiCoF assay	
6110	Siemens / Dade Behring vWF Reagent	100
6107	Trinity / Biopool vWF:RiCoF assay	1
6190	Homemade	9
6199	Other/ Unknown	1

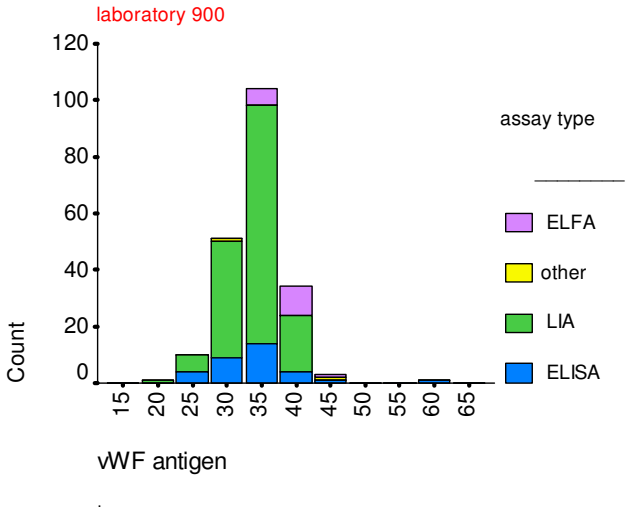
vWF:CBA

Method Code	Description	Number of responders
6205	Corgenix / Reaads CBA	
6210	DG CBA EIA	
6220	Immunozym vWF:CBA assay	
6225	Inadipore vWF:CBA assay	
6215	Life Diagnostics vWF:CBA assay	14
6240	Progen vWF: CB Elisa	2
6245	Roche / Stago Asserachrom vWF:CBA	4
6250	Tecnoclone vWF:CBA assay	20
6290	Homemade (DAKO antibodies)	9
6291	Homemade (Other)	
6299	Other/ Unknown	1

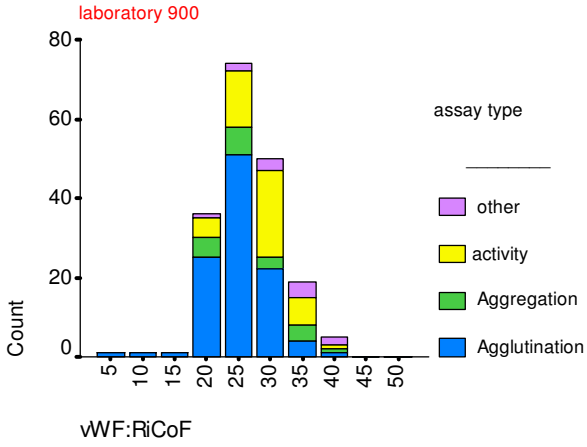
Note: Detailed information is given for those methods that are used by at least 10 participants.

Labcode: 900

vWF antigen



vWF:RiCoF / vWF Activity

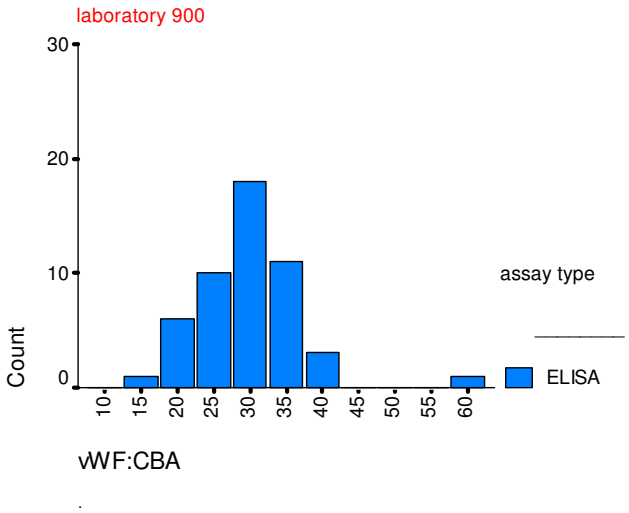


vWF antigen	n	mean	CV	range	your result	z-score
total group	**202**	**34.3**	**11.6%**	**23 – 46**		
ELISA	**32**	**32.9**	**15.3%**	**23 – 46**		
Home-made (DAKO)	14	31.7	12.5%	24 - 40		
ELFA						
Vidas vWF (bioMerieux)	17	37.9	7.0%	33 – 44		
LIA	**151**	**34.1**	**10.3%**	**23 – 42**		
Coamatic vWF (Chromogenix)	30	34.6	8.8%	26 – 41		
vWF (Siemens / DB)	39	31.5	11.4%	23 – 41		
Liatest vWF (Stago)	79	35.2	8.5%	26 – 42		

vWF:RiCoF / Activity	n	mean	CV	range	your result	z-score
total group	**185**	**26.8**	**18.7%**	**16 – 42**		
vWF:RiCoF						
Agglutination	**104**	**25.3**	**16.9%**	**16 – 42**		
vWF Reagent (Siemens / DB)	98	25.3	16.9%	16 – 42		
Aggregation	**20**	**27.5**	**22.2%**	**19 – 42**		
vWF Activity						
Latex Immunoassay	**49**	**28.7**	**15.7%**	**19 – 39**		
Latex vWF activity (IL)	44	29.2	14.8%	21 - 39		
Other assays	**12**	**31.3**	**19.5%**	**19 – 42**		

Labcode: 900

vWF:CBA



vWF:CBA		mean	CV	range	your result	z-score
total group	**49**	**29.1**	**18.9%**	**17 – 39**		
vWF:CBA assay (Life Diagnostics)	13	26.5	26.9%	17 – 39		
vWF:CBA assay (Technoclone)	20	31.3	13.4%	24 – 38		
Homemade	9	27.2	14.6%	20 - 34		

vWF Multimers

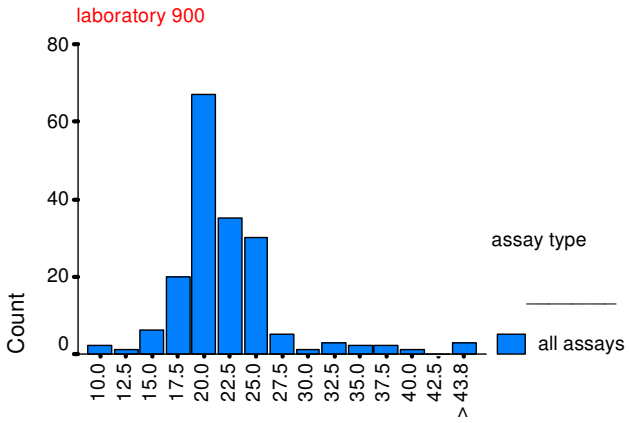
Normal distribution	30
Lack of MMW and HMW	-
Lack HMW	5
Undetectable	-
Borderline	-

Remark: Some participants reported a slight lack of HMW multimers which could be the result of the lyophilisation process of the plasma.

Labcode: 900

FVIII:C

29



FVIII:C

.

FVIII:C (%, IU/dL)	N	mean	CV	range	your result	z-score
total group	**175**	**21.6**	**19.6%**	**8 - 40**		

INTERPRETATION

Ratio vWF:RiCoF / vWF antigen

<< 1	10
< 1	70
~1	65
> 1	

Ratio Factor VIII / vWF antigen

<< 1	14
< 1	93
~1	34
> 1	3

FINAL CONCLUSION

No conclusion	49
Normal	1
Type 1	93
Type 2A	5
Type 2B	1
Type 2M	2
Type 2N	2
Type 3	1
Nothing indicated	50

Your conclusion:

Comment : -

FACTOR XIII
LABORATORY CODE NUMBER: 900

Plasmas used : **09.61 Coagulation Control Abnormal (Technoclone, lot no. 3P69000)**

09.62 Sample with Factor XIII level of 2 – 3%

Former used in exercise : 09.61 -
09.62 2009-2

ACTIVITY - QUALITATIVE

Sample	No. of Responders	Participation rate
09.61	30	36%
09.62	29	35%

Overview of the combinations of activator and lysis agents used

	Activator			
Lysis agent	Thrombin (human)	Thrombin (bovine)	Calcium Chloride	Agkistrodon rhodastoma venom
Acetic acid	0	1	2	0
Chloro-acetic acid	0	2	3	0
Urea	2	2	15	1

RESULTS

There was some confusion about the manner we have asked for reporting the result for the Factor XIII qualitative assay.
Some laboratories only reported yes or no lysis or normal vs abnormal.
In our report form we ask for negative, which means Factor XIII undetectable, or positive, which means Factor XIII detectable, including a grading for positivity.
Because several participants had indicated that they interpret negative as normal it was difficult to evaluate the category "negative".
We highly recommend for future surveys to interpret the result according as indicated above.
Negative = no Factor XIII activity or undetectable activity
Positive = detectable Factor XIII activity

	Negative	Positive (+)	Positive (++)	Positive (+++)	Your result
Sample 09.61	10	3	9	8	
Sample 09.62	10	8	7	4	

Labcode: 900

ACTIVITY - QUANTITATIVE

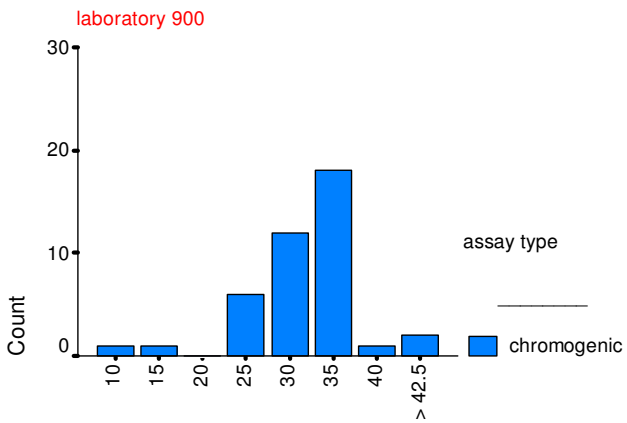
Sample	No. of Responders	Participation rate	Outliers	Labcode
09.61	40	48%	2.5%	512
09.62	40	48%	0.0%	-

	CLASSIFICATION				
Sample	Normal	Borderline Normal	Borderline abnormal	Abnormal	No classification
09.61	1	0	0	37	2
09.62	0	0	0	37	3

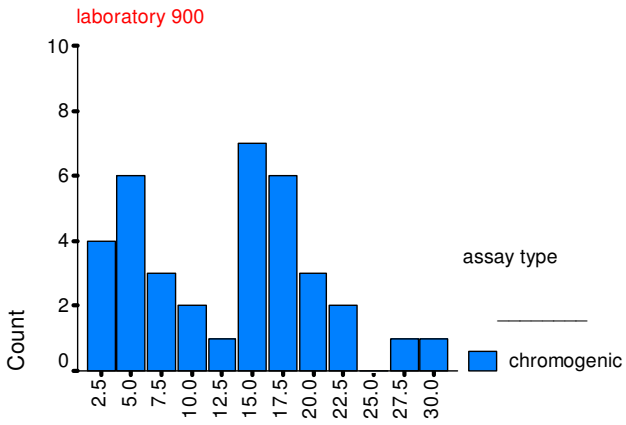
Method Code	Description	Number of responders
4010	Siemens / Dade Behring	37
4015	Stago Factor XIII	1
4020	Technoclone Technochrom FXIII	1
4025	Pentepharm Pefakit FXIII	1
4099	Unknown	0

Note: Detailed information is given for those methods that are used by at least 10 participants.

Factor XIII (IU/ml /%) (Test plasma **09.61**)



Factor XIII (IU/ml /%) (Test plasma **09.62**)



FACTOR XIII (sample 09.61)	n	mean	CV	range	your result	z-score
Total group	**40**	**31.5**	**21.0%**	**9 – 52**		
Berichrom (Siemens / Dade Behring)	37	31.3	21.3%	9 - 52		

FACTOR XIII (sample 09.62)	n	mean	CV	range	your result	z-score
Total group	**36**	**13.0**	**56.8%**	**1 – 29**		
Berichrom (Siemens / Dade Behring)	32	13.7	51.1%	1 - 29		

Labcode: 900

ANTIGEN

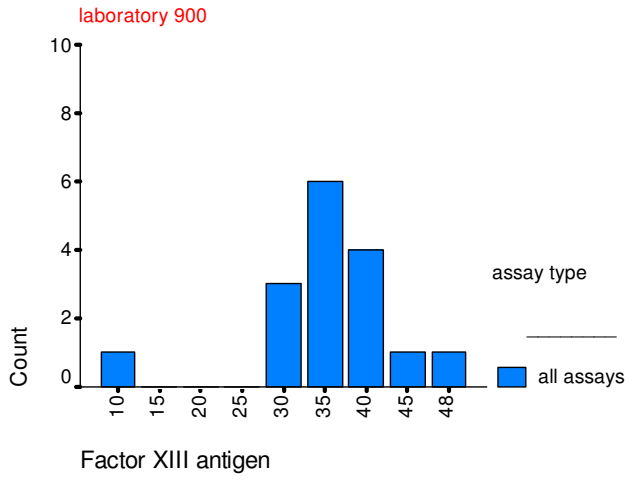
Sample	No. of Responders	Participation rate	Outliers	Labcode
09.61	16	19%	0.0%	-
09.62	16	19%	6.3%	321

	CLASSIFICATION				
Sample	Normal	Borderline Normal	Borderline abnormal	Abnormal	No classification
09.16	0	1	1	14	0
09.17	0	0	0	16	0

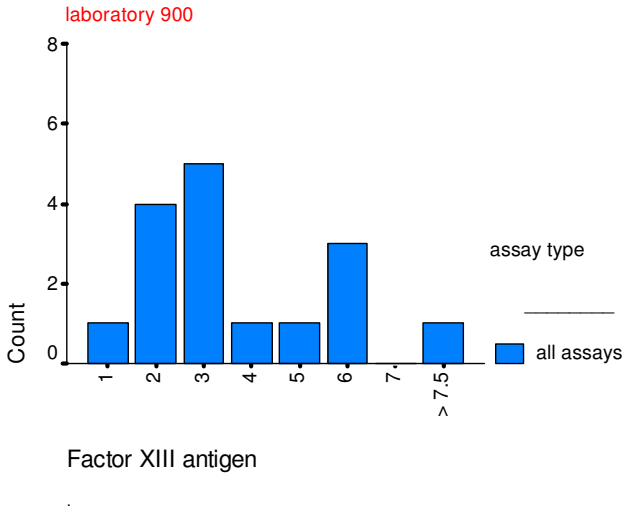
Method Code	Description	Number of responders
4301	Affinity Biologicals Factor XIII	3
4305	The Binding Site Factor XIII	1
4310	I.L. HemosIL Factor XIII	7
4330	MBL Hexamate Factor XIII	3
4315	Reanal-Ker Factor XIII Elisa	1
4390	Homemade	1

Note: Two participants had reported a result expressed in mg/L. These results were not included in the statistical evaluation.

Factor XIII (IU/ml /%) (Test plasma **09.61**)



Factor XIII (IU/ml /%) (Test plasma **09.62**)



FACTOR XIII (sample 09.61)	n	mean	CV	range	your result	z-score
Total group	16	35.9	34.0%	3 - 65		

FACTOR XIII (sample 09.62)	n	mean	CV	range	your result	z-score
Total Group	15	3.3	53.3%	0 - 6		