

EQA round: IH1/24 - Blood Group Serology

Deadline: 8.3.2024

Setup: groups - R (manufacturer of kit)

AV = assigned value
 RV = reference value
 >>> ... expected result
 > ... acceptable result
 ± ... result not assessed

N_{tot} = total number of the results
 N_{rel} = relative number of the results

N_{eva} = number of the results assessed
 N_{suc} = number of successful results
 S_{rel} = relative success

Test Sample Group	Frequency of the results				Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]
Set 1 and 2							
(700) ABO blood group		183			183	183	100
Samples E1 and S1		183			183	183	100
(14) Bio-Rad	RV >>>	63	34	Blood group: A			
(40) Ortho Clinical Diagnostics	RV >>>	1	0,5	Blood group: A			
(52) Dynex	RV >>>	2	1,1	Blood group: A			
(64) Exbio Olomouc	RV >>>	5	2,7	Blood group: A			
(80) DiaMed	RV >>>	8	4,4	Blood group: A			
(159) Grifols	RV >>>	69	38	Blood group: A			
(171) Diagast	RV >>>	2	1,1	Blood group: A			
(172) Immucor	RV >>>	21	11	Blood group: A			
(173) Sanguin	RV >>>	4	2,2	Blood group: A			
(174) IVT Imuno	RV >>>	3	1,6	Blood group: A			
(183) Immunodiagnostic Systems	RV >>>	1	0,5	Blood group: A			
(203) ANTITOXIN	RV >>>	1	0,5	Blood group: A			
(999) another manufacturer	RV >>>	3	1,6	Blood group: A			
Samples E2 and S2		183			183	183	100
(14) Bio-Rad	RV >>>	63	34	Blood group: 0			
(40) Ortho Clinical Diagnostics	RV >>>	1	0,5	Blood group: 0			
(52) Dynex	RV >>>	2	1,1	Blood group: 0			
(64) Exbio Olomouc	RV >>>	5	2,7	Blood group: 0			
(80) DiaMed	RV >>>	8	4,4	Blood group: 0			
(159) Grifols	RV >>>	69	38	Blood group: 0			
(171) Diagast	RV >>>	2	1,1	Blood group: 0			
(172) Immucor	RV >>>	21	11	Blood group: 0			
(173) Sanguin	RV >>>	4	2,2	Blood group: 0			
(174) IVT Imuno	RV >>>	3	1,6	Blood group: 0			
(183) Immunodiagnostic Systems	RV >>>	1	0,5	Blood group: 0			
(203) ANTITOXIN	RV >>>	1	0,5	Blood group: 0			
(999) another manufacturer	RV >>>	3	1,6	Blood group: 0			
(703) A subgroup		45			45	45	100
Samples E1 and S1		45			45	45	100
(0) not specified	RV >>>	45	100	A subgroup A1			
Samples E2 and S2		45			45	45	100
(0) not specified	RV >>>	45	100	Not specified			
(705) Rh D antigen (blood-donor)		105			105	74	70
Samples E1 and S1		105			105	105	100
(0) not specified	RV >>>	2	1,9	Positive (RhD+)			
(14) Bio-Rad	RV >>>	37	35	Positive (RhD+)			
(52) Dynex	RV >>>	2	1,9	Positive (RhD+)			
(64) Exbio Olomouc	RV >>>	1	1	Positive (RhD+)			
(80) DiaMed	RV >>>	2	1,9	Positive (RhD+)			
(159) Grifols	RV >>>	36	34	Positive (RhD+)			
(171) Diagast	RV >>>	1	1	Positive (RhD+)			
(172) Immucor	RV >>>	17	16	Positive (RhD+)			
(173) Sanguin	RV >>>	1	1	Positive (RhD+)			
(174) IVT Imuno	RV >>>	1	1	Positive (RhD+)			
(183) Immunodiagnostic Systems	RV >>>	1	1	Positive (RhD+)			
(203) ANTITOXIN	RV >>>	2	1,9	Positive (RhD+)			
(999) another manufacturer	RV >>>	2	1,9	Positive (RhD+)			
Samples E2 and S2		105			105	74	70
(0) not specified		1	1	Not specified			
		1	1	Negative (RhD-)			
(14) Bio-Rad		8	7,6	Negative (RhD-)			
	>	6	5,7	Positive (RhD+)			
	RV >>>	23	22	w/v (RhD weak/variant)			
(52) Dynex		1	1	Negative (RhD-)			
	RV >>>	1	1	w/v (RhD weak/variant)			
(64) Exbio Olomouc	RV >>>	1	1	w/v (RhD weak/variant)			
(80) DiaMed		1	1	Negative (RhD-)			
	RV >>>	1	1	w/v (RhD weak/variant)			
(159) Grifols		13	12	Negative (RhD-)			
	>	9	8,6	Positive (RhD+)			
	RV >>>	14	13	w/v (RhD weak/variant)			

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Test Sample Group	Frequency of the results					Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]	
(171) Diagast	RV	>>>	1	1	w/v (RhD weak/variant)			
(172) Immucor			4	3,8	Negative (RhD-)			
		>	3	2,9	Positive (RhD+)			
	RV	>>>	10	9,5	w/v (RhD weak/variant)			
(173) Sanguin			1	1	Negative (RhD-)			
(174) IVT Imuno		>	1	1	Positive (RhD+)			
(183) Immunodiagnostic Systems	RV	>>>	1	1	w/v (RhD weak/variant)			
(203) ANTITOXIN		>	1	1	Positive (RhD+)			
	RV	>>>	1	1	w/v (RhD weak/variant)			
(999) another manufacturer			1	1	Negative (RhD-)			
	RV	>>>	1	1	w/v (RhD weak/variant)			
(709) Rh D antigen (recipient/ pregnant/ newborn)			175			175	173	99
Samples E1 and S1			175			175	175	100
(14) Bio-Rad	RV	>>>	61	35	Positive (RhD+)			
(40) Ortho Clinical Diagnostics	RV	>>>	1	0,6	Positive (RhD+)			
(52) Dynex	RV	>>>	1	0,6	Positive (RhD+)			
(64) Exbio Olomouc	RV	>>>	5	2,9	Positive (RhD+)			
(80) DiaMed	RV	>>>	6	3,4	Positive (RhD+)			
(159) Grifols	RV	>>>	66	38	Positive (RhD+)			
(170) Biotest	RV	>>>	1	0,6	Positive (RhD+)			
(171) Diagast	RV	>>>	1	0,6	Positive (RhD+)			
(172) Immucor	RV	>>>	20	11	Positive (RhD+)			
(173) Sanguin	RV	>>>	4	2,3	Positive (RhD+)			
(174) IVT Imuno	RV	>>>	2	1,1	Positive (RhD+)			
(183) Immunodiagnostic Systems	RV	>>>	1	0,6	Positive (RhD+)			
(203) ANTITOXIN	RV	>>>	3	1,7	Positive (RhD+)			
(999) another manufacturer	RV	>>>	3	1,7	Positive (RhD+)			
Samples E2 and S2			175			175	173	99
(14) Bio-Rad	RV	>>>	52	30	Negative (RhD-)			
			1	0,6	Positive (RhD+)			
	RV	>>>	8	4,6	w/v (RhD weak/variant)			
(40) Ortho Clinical Diagnostics	RV	>>>	1	0,6	Negative (RhD-)			
(52) Dynex	RV	>>>	1	0,6	Negative (RhD-)			
(64) Exbio Olomouc	RV	>>>	5	2,9	Negative (RhD-)			
(80) DiaMed	RV	>>>	6	3,4	Negative (RhD-)			
(159) Grifols	RV	>>>	57	33	Negative (RhD-)			
			1	0,6	Positive (RhD+)			
	RV	>>>	8	4,6	w/v (RhD weak/variant)			
(170) Biotest	RV	>>>	1	0,6	Negative (RhD-)			
(171) Diagast	RV	>>>	1	0,6	Negative (RhD-)			
(172) Immucor	RV	>>>	19	11	Negative (RhD-)			
	RV	>>>	1	0,6	w/v (RhD weak/variant)			
(173) Sanguin	RV	>>>	3	1,7	Negative (RhD-)			
	RV	>>>	1	0,6	w/v (RhD weak/variant)			
(174) IVT Imuno	RV	>>>	2	1,1	Negative (RhD-)			
(183) Immunodiagnostic Systems	RV	>>>	1	0,6	Negative (RhD-)			
(203) ANTITOXIN	RV	>>>	3	1,7	Negative (RhD-)			
(999) another manufacturer	RV	>>>	3	1,7	Negative (RhD-)			
(715) Antigen C			94			94	94	100
Samples E1 and S1			94			94	94	100
(14) Bio-Rad	RV	>>>	40	43	Positive			
(50) Merck	RV	>>>	1	1,1	Positive			
(80) DiaMed	RV	>>>	4	4,3	Positive			
(159) Grifols	RV	>>>	35	37	Positive			
(171) Diagast	RV	>>>	2	2,1	Positive			
(172) Immucor	RV	>>>	7	7,4	Positive			
(174) IVT Imuno	RV	>>>	1	1,1	Positive			
(183) Immunodiagnostic Systems	RV	>>>	1	1,1	Positive			
(203) ANTITOXIN	RV	>>>	2	2,1	Positive			
(999) another manufacturer	RV	>>>	1	1,1	Positive			
Samples E2 and S2			94			94	94	100
(14) Bio-Rad	RV	>>>	40	43	Positive			
(50) Merck	RV	>>>	1	1,1	Positive			
(80) DiaMed	RV	>>>	4	4,3	Positive			
(159) Grifols	RV	>>>	35	37	Positive			
(171) Diagast	RV	>>>	2	2,1	Positive			
(172) Immucor	RV	>>>	7	7,4	Positive			
(174) IVT Imuno	RV	>>>	1	1,1	Positive			

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	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]	
(183) Immunodiagnostic Systems	RV >>>	1	1,1	Positive				
(203) ANTITOXIN	RV >>>	2	2,1	Positive				
(999) another manufacturer	RV >>>	1	1,1	Positive				
(716) Antigen c		94			94	94	100	
Samples E1 and S1		94			94	94	100	
(14) Bio-Rad	RV >>>	40	43	Positive				
(50) Merck	RV >>>	1	1,1	Positive				
(80) DiaMed	RV >>>	4	4,3	Positive				
(159) Grifols	RV >>>	36	38	Positive				
(171) Diagast	RV >>>	1	1,1	Positive				
(172) Immucor	RV >>>	7	7,4	Positive				
(174) IVT Imuno	RV >>>	1	1,1	Positive				
(183) Immunodiagnostic Systems	RV >>>	1	1,1	Positive				
(203) ANTITOXIN	RV >>>	2	2,1	Positive				
(999) another manufacturer	RV >>>	1	1,1	Positive				
Samples E2 and S2		94			94	94	100	
(14) Bio-Rad	RV >>>	40	43	Positive				
(50) Merck	RV >>>	1	1,1	Positive				
(80) DiaMed	RV >>>	4	4,3	Positive				
(159) Grifols	RV >>>	36	38	Positive				
(171) Diagast	RV >>>	1	1,1	Positive				
(172) Immucor	RV >>>	7	7,4	Positive				
(174) IVT Imuno	RV >>>	1	1,1	Positive				
(183) Immunodiagnostic Systems	RV >>>	1	1,1	Positive				
(203) ANTITOXIN	RV >>>	2	2,1	Positive				
(999) another manufacturer	RV >>>	1	1,1	Positive				
(718) Antigen E		95			95	95	100	
Samples E1 and S1		95			95	95	100	
(14) Bio-Rad	RV >>>	40	42	Negative				
(50) Merck	RV >>>	1	1,1	Negative				
(80) DiaMed	RV >>>	4	4,2	Negative				
(159) Grifols	RV >>>	36	38	Negative				
(171) Diagast	RV >>>	2	2,1	Negative				
(172) Immucor	RV >>>	7	7,4	Negative				
(174) IVT Imuno	RV >>>	1	1,1	Negative				
(183) Immunodiagnostic Systems	RV >>>	1	1,1	Negative				
(203) ANTITOXIN	RV >>>	2	2,1	Negative				
(999) another manufacturer	RV >>>	1	1,1	Negative				
Samples E2 and S2		95			95	95	100	
(14) Bio-Rad	RV >>>	40	42	Negative				
(50) Merck	RV >>>	1	1,1	Negative				
(80) DiaMed	RV >>>	4	4,2	Negative				
(159) Grifols	RV >>>	36	38	Negative				
(171) Diagast	RV >>>	2	2,1	Negative				
(172) Immucor	RV >>>	7	7,4	Negative				
(174) IVT Imuno	RV >>>	1	1,1	Negative				
(183) Immunodiagnostic Systems	RV >>>	1	1,1	Negative				
(203) ANTITOXIN	RV >>>	2	2,1	Negative				
(999) another manufacturer	RV >>>	1	1,1	Negative				
(719) Antigen e		94			94	94	100	
Samples E1 and S1		94			94	94	100	
(14) Bio-Rad	RV >>>	39	41	Positive				
(17) Biogema	RV >>>	1	1,1	Positive				
(50) Merck	RV >>>	1	1,1	Positive				
(80) DiaMed	RV >>>	4	4,3	Positive				
(159) Grifols	RV >>>	35	37	Positive				
(171) Diagast	RV >>>	2	2,1	Positive				
(172) Immucor	RV >>>	7	7,4	Positive				
(174) IVT Imuno	RV >>>	1	1,1	Positive				
(183) Immunodiagnostic Systems	RV >>>	1	1,1	Positive				
(203) ANTITOXIN	RV >>>	2	2,1	Positive				
(999) another manufacturer	RV >>>	1	1,1	Positive				
Samples E2 and S2		94			94	94	100	
(14) Bio-Rad	RV >>>	39	41	Positive				
(17) Biogema	RV >>>	1	1,1	Positive				
(50) Merck	RV >>>	1	1,1	Positive				
(80) DiaMed	RV >>>	4	4,3	Positive				
(159) Grifols	RV >>>	35	37	Positive				
(171) Diagast	RV >>>	2	2,1	Positive				

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Test Sample Group	Frequency of the results					Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]	
(172) Immucor	RV	>>>	7	7,4	Positive			
(174) IVT Imuno	RV	>>>	1	1,1	Positive			
(183) Immunodiagnostic Systems	RV	>>>	1	1,1	Positive			
(203) ANTITOXIN	RV	>>>	2	2,1	Positive			
(999) another manufacturer	RV	>>>	1	1,1	Positive			
(717) Antigen C^w			79			79	79	100
Samples E1 and S1			79			79	79	100
(14) Bio-Rad	RV	>>>	29	37	Negative			
(50) Merck	RV	>>>	1	1,3	Negative			
(80) DiaMed	RV	>>>	1	1,3	Negative			
(159) Grifols	RV	>>>	37	47	Negative			
(170) Biotest	RV	>>>	1	1,3	Negative			
(172) Immucor	RV	>>>	6	7,6	Negative			
(173) Sanguin	RV	>>>	1	1,3	Negative			
(174) IVT Imuno	RV	>>>	2	2,5	Negative			
(999) another manufacturer	RV	>>>	1	1,3	Negative			
Samples E2 and S2			79			79	79	100
(14) Bio-Rad	RV	>>>	29	37	Negative			
(50) Merck	RV	>>>	1	1,3	Negative			
(80) DiaMed	RV	>>>	1	1,3	Negative			
(159) Grifols	RV	>>>	37	47	Negative			
(170) Biotest	RV	>>>	1	1,3	Negative			
(172) Immucor	RV	>>>	6	7,6	Negative			
(173) Sanguin	RV	>>>	1	1,3	Negative			
(174) IVT Imuno	RV	>>>	2	2,5	Negative			
(999) another manufacturer	RV	>>>	1	1,3	Negative			
(720) Antigen K			103			103	103	100
Samples E1 and S1			103			103	103	100
(14) Bio-Rad	RV	>>>	41	40	Negative			
(50) Merck	RV	>>>	1	1	Negative			
(80) DiaMed	RV	>>>	4	3,9	Negative			
(159) Grifols	RV	>>>	44	43	Negative			
(171) Diagast	RV	>>>	1	1	Negative			
(172) Immucor	RV	>>>	7	6,8	Negative			
(174) IVT Imuno	RV	>>>	1	1	Negative			
(183) Immunodiagnostic Systems	RV	>>>	1	1	Negative			
(203) ANTITOXIN	RV	>>>	2	1,9	Negative			
(999) another manufacturer	RV	>>>	1	1	Negative			
Samples E2 and S2			103			103	103	100
(14) Bio-Rad	RV	>>>	41	40	Negative			
(50) Merck	RV	>>>	1	1	Negative			
(80) DiaMed	RV	>>>	4	3,9	Negative			
(159) Grifols	RV	>>>	44	43	Negative			
(171) Diagast	RV	>>>	1	1	Negative			
(172) Immucor	RV	>>>	7	6,8	Negative			
(174) IVT Imuno	RV	>>>	1	1	Negative			
(183) Immunodiagnostic Systems	RV	>>>	1	1	Negative			
(203) ANTITOXIN	RV	>>>	2	1,9	Negative			
(999) another manufacturer	RV	>>>	1	1	Negative			
(721) Antigen k			40			40	40	100
Samples E1 and S1			40			40	40	100
(14) Bio-Rad	RV	>>>	9	23	Positive			
(64) Exbio Olomouc	RV	>>>	2	5	Positive			
(80) DiaMed	RV	>>>	1	2,5	Positive			
(159) Grifols	RV	>>>	12	30	Positive			
(172) Immucor	RV	>>>	7	18	Positive			
(173) Sanguin	RV	>>>	7	18	Positive			
(174) IVT Imuno	RV	>>>	1	2,5	Positive			
(999) another manufacturer	RV	>>>	1	2,5	Positive			
Samples E2 and S2			40			40	40	100
(14) Bio-Rad	RV	>>>	9	23	Positive			
(64) Exbio Olomouc	RV	>>>	2	5	Positive			
(80) DiaMed	RV	>>>	1	2,5	Positive			
(159) Grifols	RV	>>>	12	30	Positive			
(172) Immucor	RV	>>>	7	18	Positive			
(173) Sanguin	RV	>>>	7	18	Positive			
(174) IVT Imuno	RV	>>>	1	2,5	Positive			
(999) another manufacturer	RV	>>>	1	2,5	Positive			

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Test Sample Group	Frequency of the results					Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]	
(738) Antigen Kp^a		18			18	17	94	
Samples E1 and S1		18			18	17	94	
(14) Bio-Rad	RV >>>	6	33	Negative				
		1	5,6	Positive				
(159) Grifols	RV >>>	8	44	Negative				
(172) Immucor	RV >>>	2	11	Negative				
(183) Immunodiagnostic Systems	RV >>>	1	5,6	Negative				
Samples E2 and S2		18			18	17	94	
(14) Bio-Rad	RV >>>	6	33	Negative				
		1	5,6	Positive				
(159) Grifols	RV >>>	8	44	Negative				
(172) Immucor	RV >>>	2	11	Negative				
(183) Immunodiagnostic Systems	RV >>>	1	5,6	Negative				
(739) Antigen Kp^b		12			12	11	92	
Samples E1 and S1		12			12	11	92	
(14) Bio-Rad		1	8,3	Negative				
	RV >>>	3	25	Positive				
(159) Grifols	RV >>>	5	42	Positive				
(172) Immucor	RV >>>	2	17	Positive				
(183) Immunodiagnostic Systems	RV >>>	1	8,3	Positive				
Samples E2 and S2		12			12	11	92	
(14) Bio-Rad		1	8,3	Negative				
	RV >>>	3	25	Positive				
(159) Grifols	RV >>>	5	42	Positive				
(172) Immucor	RV >>>	2	17	Positive				
(183) Immunodiagnostic Systems	RV >>>	1	8,3	Positive				
(729) Antigen Jk^a		47			47	47	100	
Samples E1 and S1		47			47	47	100	
(6) APR	RV >>>	1	2,1	Negative				
(14) Bio-Rad	RV >>>	12	26	Negative				
(52) Dynex	RV >>>	1	2,1	Negative				
(64) Exbio Olomouc	RV >>>	2	4,3	Negative				
(80) DiaMed	RV >>>	1	2,1	Negative				
(159) Grifols	RV >>>	20	43	Negative				
(172) Immucor	RV >>>	5	11	Negative				
(173) Sanguin	RV >>>	4	8,5	Negative				
(203) ANTITOXIN	RV >>>	1	2,1	Negative				
Samples E2 and S2		47			47	47	100	
(6) APR	RV >>>	1	2,1	Positive				
(14) Bio-Rad	RV >>>	12	26	Positive				
(52) Dynex	RV >>>	1	2,1	Positive				
(64) Exbio Olomouc	RV >>>	2	4,3	Positive				
(80) DiaMed	RV >>>	1	2,1	Positive				
(159) Grifols	RV >>>	20	43	Positive				
(172) Immucor	RV >>>	5	11	Positive				
(173) Sanguin	RV >>>	4	8,5	Positive				
(203) ANTITOXIN	RV >>>	1	2,1	Positive				
(730) Antigen Jk^b		47			47	47	100	
Samples E1 and S1		47			47	47	100	
(6) APR	RV >>>	1	2,1	Positive				
(14) Bio-Rad	RV >>>	12	26	Positive				
(52) Dynex	RV >>>	1	2,1	Positive				
(64) Exbio Olomouc	RV >>>	2	4,3	Positive				
(80) DiaMed	RV >>>	1	2,1	Positive				
(159) Grifols	RV >>>	20	43	Positive				
(172) Immucor	RV >>>	5	11	Positive				
(173) Sanguin	RV >>>	4	8,5	Positive				
(203) ANTITOXIN	RV >>>	1	2,1	Positive				
Samples E2 and S2		47			47	47	100	
(6) APR	RV >>>	1	2,1	Negative				
(14) Bio-Rad	RV >>>	12	26	Negative				
(52) Dynex	RV >>>	1	2,1	Negative				
(64) Exbio Olomouc	RV >>>	2	4,3	Negative				
(80) DiaMed	RV >>>	1	2,1	Negative				
(159) Grifols	RV >>>	20	43	Negative				
(172) Immucor	RV >>>	5	11	Negative				
(173) Sanguin	RV >>>	4	8,5	Negative				
(203) ANTITOXIN	RV >>>	1	2,1	Negative				

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Test Sample Group	Frequency of the results					Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]	
(727) Antigen Fy^a		47				47	46	98
Samples E1 and S1		47				47	47	100
(0) not specified	RV	>>>	1	2,1	Positive			
(14) Bio-Rad	RV	>>>	14	30	Positive			
(64) Exbio Olomouc	RV	>>>	2	4,3	Positive			
(80) DiaMed	RV	>>>	1	2,1	Positive			
(159) Grifols	RV	>>>	19	40	Positive			
(172) Immucor	RV	>>>	5	11	Positive			
(173) Sanguin	RV	>>>	3	6,4	Positive			
(174) IVT Imuno	RV	>>>	1	2,1	Positive			
(203) ANTITOXIN	RV	>>>	1	2,1	Positive			
Samples E2 and S2		47				47	46	98
(0) not specified	RV	>>>	1	2,1	Positive			
(14) Bio-Rad	RV	>>>	14	30	Positive			
(64) Exbio Olomouc	RV	>>>	2	4,3	Positive			
(80) DiaMed	RV	>>>	1	2,1	Positive			
(159) Grifols	RV	>>>	19	40	Positive			
(172) Immucor	RV	>>>	1	2,1	Negative			
	RV	>>>	4	8,5	Positive			
(173) Sanguin	RV	>>>	3	6,4	Positive			
(174) IVT Imuno	RV	>>>	1	2,1	Positive			
(203) ANTITOXIN	RV	>>>	1	2,1	Positive			
(728) Antigen Fy^b		47				47	47	100
Samples E1 and S1		47				47	47	100
(0) not specified	RV	>>>	1	2,1	Negative			
(14) Bio-Rad	RV	>>>	14	30	Negative			
(64) Exbio Olomouc	RV	>>>	2	4,3	Negative			
(80) DiaMed	RV	>>>	1	2,1	Negative			
(159) Grifols	RV	>>>	19	40	Negative			
(172) Immucor	RV	>>>	5	11	Negative			
(173) Sanguin	RV	>>>	3	6,4	Negative			
(174) IVT Imuno	RV	>>>	1	2,1	Negative			
(203) ANTITOXIN	RV	>>>	1	2,1	Negative			
Samples E2 and S2		47				47	47	100
(0) not specified	RV	>>>	1	2,1	Positive			
(14) Bio-Rad	RV	>>>	14	30	Positive			
(64) Exbio Olomouc	RV	>>>	2	4,3	Positive			
(80) DiaMed	RV	>>>	1	2,1	Positive			
(159) Grifols	RV	>>>	19	40	Positive			
(172) Immucor	RV	>>>	5	11	Positive			
(173) Sanguin	RV	>>>	3	6,4	Positive			
(174) IVT Imuno	RV	>>>	1	2,1	Positive			
(203) ANTITOXIN	RV	>>>	1	2,1	Positive			
(722) Antigen M		46				46	46	100
Samples E1 and S1		46				46	46	100
(6) APR	RV	>>>	1	2,2	Positive			
(14) Bio-Rad	RV	>>>	13	28	Positive			
(52) Dynex	RV	>>>	1	2,2	Positive			
(64) Exbio Olomouc	RV	>>>	1	2,2	Positive			
(80) DiaMed	RV	>>>	1	2,2	Positive			
(159) Grifols	RV	>>>	17	37	Positive			
(171) Diagast	RV	>>>	1	2,2	Positive			
(172) Immucor	RV	>>>	6	13	Positive			
(173) Sanguin	RV	>>>	2	4,3	Positive			
(183) Immunodiagnostic Systems	RV	>>>	1	2,2	Positive			
(203) ANTITOXIN	RV	>>>	2	4,3	Positive			
Samples E2 and S2		46				46	46	100
(6) APR	RV	>>>	1	2,2	Positive			
(14) Bio-Rad	RV	>>>	13	28	Positive			
(52) Dynex	RV	>>>	1	2,2	Positive			
(64) Exbio Olomouc	RV	>>>	1	2,2	Positive			
(80) DiaMed	RV	>>>	1	2,2	Positive			
(159) Grifols	RV	>>>	17	37	Positive			
(171) Diagast	RV	>>>	1	2,2	Positive			
(172) Immucor	RV	>>>	6	13	Positive			
(173) Sanguin	RV	>>>	2	4,3	Positive			
(183) Immunodiagnostic Systems	RV	>>>	1	2,2	Positive			
(203) ANTITOXIN	RV	>>>	2	4,3	Positive			

EQA round: IH1/24 - Blood Group Serology

Deadline: 8.3.2024

Setup: groups - R (manufacturer of kit)

Test Sample Group	Frequency of the results					Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]	
(723) Antigen N		44				44	42	95
Samples E1 and S1		44				44	43	98
(6) APR	RV >>>	1	2,3	Positive				
(14) Bio-Rad	RV >>>	13	30	Positive				
(52) Dynex	RV >>>	1	2,3	Positive				
(64) Exbio Olomouc	RV >>>	1	2,3	Positive				
(80) DiaMed	RV >>>	1	2,3	Positive				
(159) Grifols		1	2,3	Negative				
	RV >>>	16	36	Positive				
(171) Diagast	RV >>>	1	2,3	Positive				
(172) Immucor	RV >>>	5	11	Positive				
(173) Sanguin	RV >>>	1	2,3	Positive				
(183) Immunodiagnostic Systems	RV >>>	1	2,3	Positive				
(203) ANTITOXIN	RV >>>	2	4,5	Positive				
Samples E2 and S2		44				44	43	98
(6) APR	RV >>>	1	2,3	Negative				
(14) Bio-Rad	RV >>>	13	30	Negative				
(52) Dynex	RV >>>	1	2,3	Negative				
(64) Exbio Olomouc	RV >>>	1	2,3	Negative				
(80) DiaMed	RV >>>	1	2,3	Negative				
(159) Grifols	RV >>>	17	39	Negative				
(171) Diagast	RV >>>	1	2,3	Negative				
(172) Immucor	RV >>>	5	11	Negative				
(173) Sanguin	RV >>>	1	2,3	Negative				
(183) Immunodiagnostic Systems	RV >>>	1	2,3	Negative				
(203) ANTITOXIN	RV >>>	1	2,3	Negative				
		1	2,3	Positive				
(724) Antigen S		47				47	47	100
Samples E1 and S1		47				47	47	100
(6) APR	RV >>>	1	2,1	Positive				
(14) Bio-Rad	RV >>>	14	30	Positive				
(64) Exbio Olomouc	RV >>>	2	4,3	Positive				
(80) DiaMed	RV >>>	1	2,1	Positive				
(159) Grifols	RV >>>	19	40	Positive				
(172) Immucor	RV >>>	6	13	Positive				
(173) Sanguin	RV >>>	2	4,3	Positive				
(203) ANTITOXIN	RV >>>	2	4,3	Positive				
Samples E2 and S2		47				47	47	100
(6) APR	RV >>>	1	2,1	Positive				
(14) Bio-Rad	RV >>>	14	30	Positive				
(64) Exbio Olomouc	RV >>>	2	4,3	Positive				
(80) DiaMed	RV >>>	1	2,1	Positive				
(159) Grifols	RV >>>	19	40	Positive				
(172) Immucor	RV >>>	6	13	Positive				
(173) Sanguin	RV >>>	2	4,3	Positive				
(203) ANTITOXIN	RV >>>	2	4,3	Positive				
(725) Antigen s		46				46	46	100
Samples E1 and S1		46				46	46	100
(6) APR	RV >>>	1	2,2	Positive				
(14) Bio-Rad	RV >>>	14	30	Positive				
(64) Exbio Olomouc	RV >>>	2	4,3	Positive				
(80) DiaMed	RV >>>	1	2,2	Positive				
(159) Grifols	RV >>>	19	41	Positive				
(172) Immucor	RV >>>	5	11	Positive				
(173) Sanguin	RV >>>	3	6,5	Positive				
(203) ANTITOXIN	RV >>>	1	2,2	Positive				
Samples E2 and S2		46				46	46	100
(6) APR	RV >>>	1	2,2	Negative				
(14) Bio-Rad	RV >>>	14	30	Negative				
(64) Exbio Olomouc	RV >>>	2	4,3	Negative				
(80) DiaMed	RV >>>	1	2,2	Negative				
(159) Grifols	RV >>>	19	41	Negative				
(172) Immucor	RV >>>	5	11	Negative				
(173) Sanguin	RV >>>	3	6,5	Negative				
(203) ANTITOXIN	RV >>>	1	2,2	Negative				
(733) Antigen Le^a		39				39	39	100
Samples E1 and S1		39				39	39	100
(0) not specified	RV >>>	1	2,6	Negative				
(14) Bio-Rad	RV >>>	15	38	Negative				

EQA round: IH1/24 - Blood Group Serology

Deadline: 8.3.2024

Setup: groups - R (manufacturer of kit)

Test Sample Group	Frequency of the results					Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]	
(52) Dynex	RV >>>	1	2,6	Negative				
(64) Exbio Olomouc	RV >>>	1	2,6	Negative				
(159) Grifols	RV >>>	14	36	Negative				
(172) Immucor	RV >>>	3	7,7	Negative				
(173) Sanguin	RV >>>	1	2,6	Negative				
(183) Immunodiagnostic Systems	RV >>>	1	2,6	Negative				
(203) ANTITOXIN	RV >>>	2	5,1	Negative				
Samples E2 and S2		39			39	39	100	
(0) not specified	RV >>>	1	2,6	Positive				
(14) Bio-Rad	RV >>>	15	38	Positive				
(52) Dynex	RV >>>	1	2,6	Positive				
(64) Exbio Olomouc	RV >>>	1	2,6	Positive				
(159) Grifols	RV >>>	14	36	Positive				
(172) Immucor	RV >>>	3	7,7	Positive				
(173) Sanguin	RV >>>	1	2,6	Positive				
(183) Immunodiagnostic Systems	RV >>>	1	2,6	Positive				
(203) ANTITOXIN	RV >>>	2	5,1	Positive				
(734) Antigen Le^p		39			39	38	97	
Samples E1 and S1		39			39	38	97	
(0) not specified	RV >>>	1	2,6	Positive				
(14) Bio-Rad	RV >>>	14	36	Positive				
(52) Dynex	RV >>>	2	5,1	Positive				
(64) Exbio Olomouc	RV >>>	1	2,6	Positive				
(159) Grifols	RV >>>	14	36	Positive				
(172) Immucor		1	2,6	Negative				
	RV >>>	2	5,1	Positive				
(183) Immunodiagnostic Systems	RV >>>	1	2,6	Positive				
(203) ANTITOXIN	RV >>>	2	5,1	Positive				
(999) another manufacturer	RV >>>	1	2,6	Positive				
Samples E2 and S2		39			39	39	100	
(0) not specified	RV >>>	1	2,6	Negative				
(14) Bio-Rad	RV >>>	14	36	Negative				
(52) Dynex	RV >>>	2	5,1	Negative				
(64) Exbio Olomouc	RV >>>	1	2,6	Negative				
(159) Grifols	RV >>>	14	36	Negative				
(172) Immucor	RV >>>	3	7,7	Negative				
(183) Immunodiagnostic Systems	RV >>>	1	2,6	Negative				
(203) ANTITOXIN	RV >>>	2	5,1	Negative				
(999) another manufacturer	RV >>>	1	2,6	Negative				
(731) Antigen Lu^a		32			32	31	97	
Samples E1 and S1		32			32	31	97	
(14) Bio-Rad	RV >>>	9	28	Negative				
(64) Exbio Olomouc	RV >>>	2	6,3	Negative				
(159) Grifols	RV >>>	16	50	Negative				
		1	3,1	Positive				
(172) Immucor	RV >>>	1	3,1	Negative				
(174) IVT Imuno	RV >>>	1	3,1	Negative				
(183) Immunodiagnostic Systems	RV >>>	1	3,1	Negative				
(999) another manufacturer	RV >>>	1	3,1	Negative				
Samples E2 and S2		32			32	31	97	
(14) Bio-Rad	RV >>>	9	28	Negative				
(64) Exbio Olomouc	RV >>>	2	6,3	Negative				
(159) Grifols	RV >>>	16	50	Negative				
		1	3,1	Positive				
(172) Immucor	RV >>>	1	3,1	Negative				
(174) IVT Imuno	RV >>>	1	3,1	Negative				
(183) Immunodiagnostic Systems	RV >>>	1	3,1	Negative				
(999) another manufacturer	RV >>>	1	3,1	Negative				
(732) Antigen Lu^p		30			30	30	100	
Samples E1 and S1		30			30	30	100	
(14) Bio-Rad	RV >>>	9	30	Positive				
(64) Exbio Olomouc	RV >>>	2	6,7	Positive				
(159) Grifols	RV >>>	17	57	Positive				
(172) Immucor	RV >>>	1	3,3	Positive				
(999) another manufacturer	RV >>>	1	3,3	Positive				
Samples E2 and S2		30			30	30	100	
(14) Bio-Rad	RV >>>	9	30	Positive				
(64) Exbio Olomouc	RV >>>	2	6,7	Positive				
(159) Grifols	RV >>>	17	57	Positive				

EQA round: IH1/24 - Blood Group Serology

Deadline: 8.3.2024

Setup: groups - R (manufacturer of kit)

Test Sample Group	Frequency of the results				Success			
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]	
(172) Immucor	RV	>>>	1	3,3	Positive			
(999) another manufacturer	RV	>>>	1	3,3	Positive			
(726) Antigen P1			32			32	31	97
Samples E1 and S1			32			32	32	100
(6) APR	RV	>>>	1	3,1	Negative			
(14) Bio-Rad	RV	>>>	11	34	Negative			
(64) Exbio Olomouc	RV	>>>	2	6,3	Negative			
(159) Grifols	RV	>>>	10	31	Negative			
(172) Immucor	RV	>>>	3	9,4	Negative			
(173) Sanguin	RV	>>>	2	6,3	Negative			
(174) IVT Imuno	RV	>>>	1	3,1	Negative			
(183) Immunodiagnostic Systems	RV	>>>	1	3,1	Negative			
(203) ANTITOXIN	RV	>>>	1	3,1	Negative			
Samples E2 and S2			32			32	31	97
(6) APR	RV	>>>	1	3,1	Positive			
(14) Bio-Rad	RV	>>>	11	34	Positive			
(64) Exbio Olomouc	RV	>>>	2	6,3	Positive			
(159) Grifols	RV	>>>	1	3,1	Negative			
	RV	>>>	9	28	Positive			
(172) Immucor	RV	>>>	3	9,4	Positive			
(173) Sanguin	RV	>>>	2	6,3	Positive			
(174) IVT Imuno	RV	>>>	1	3,1	Positive			
(183) Immunodiagnostic Systems	RV	>>>	1	3,1	Positive			
(203) ANTITOXIN	RV	>>>	1	3,1	Positive			
(740) Antigen Wr^a			9			9	8	89
Samples E1 and S1			9			9	9	100
(14) Bio-Rad	RV	>>>	1	11	Negative			
(159) Grifols	RV	>>>	2	22	Negative			
(172) Immucor	RV	>>>	2	22	Negative			
(173) Sanguin	RV	>>>	4	44	Negative			
Samples E2 and S2			9			9	8	89
(14) Bio-Rad			1	11	Not specified			
(159) Grifols	RV	>>>	2	22	Negative			
(172) Immucor	RV	>>>	2	22	Negative			
(173) Sanguin	RV	>>>	4	44	Negative			
(737) Direct Coombs (antiglobulin) test			140			140	140	100
Samples E1 and S1			140			140	140	100
(14) Bio-Rad	RV	>>>	69	49	Negative			
(40) Ortho Clinical Diagnostics	RV	>>>	1	0,7	Negative			
(64) Exbio Olomouc	RV	>>>	1	0,7	Negative			
(80) DiaMed	RV	>>>	11	7,9	Negative			
(159) Grifols	RV	>>>	56	40	Negative			
(172) Immucor	RV	>>>	1	0,7	Negative			
(203) ANTITOXIN	RV	>>>	1	0,7	Negative			
Samples E2 and S2			140			140	140	100
(14) Bio-Rad	RV	>>>	69	49	Negative			
(40) Ortho Clinical Diagnostics	RV	>>>	1	0,7	Negative			
(64) Exbio Olomouc	RV	>>>	1	0,7	Negative			
(80) DiaMed	RV	>>>	11	7,9	Negative			
(159) Grifols	RV	>>>	56	40	Negative			
(172) Immucor	RV	>>>	1	0,7	Negative			
(203) ANTITOXIN	RV	>>>	1	0,7	Negative			
(741) Antibody screening (IAT, blood donor)			90			90	82	91
Samples E1 and S1			90			90	82	91
(0) not specified	RV	>>>	1	1,1	Positive			
(14) Bio-Rad			6	6,7	Negative			
	RV	>>>	33	37	Positive			
(64) Exbio Olomouc	RV	>>>	1	1,1	Positive			
(80) DiaMed			2	2,2	Negative			
	RV	>>>	4	4,4	Positive			
(159) Grifols	RV	>>>	33	37	Positive			
(171) Diagast	RV	>>>	2	2,2	Positive			
(172) Immucor	RV	>>>	8	8,9	Positive			
Samples E2 and S2			90			90	90	100
(0) not specified	RV	>>>	1	1,1	Positive			
(14) Bio-Rad	RV	>>>	39	43	Positive			
(64) Exbio Olomouc	RV	>>>	1	1,1	Positive			
(80) DiaMed	RV	>>>	6	6,7	Positive			
(159) Grifols	RV	>>>	33	37	Positive			

EQA round: IH1/24 - Blood Group Serology

Deadline: 8.3.2024

Setup: groups - R (manufacturer of kit)

Test Sample Group	Frequency of the results					Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]	
(171) Diagast	RV	>>>	2	2,2	Positive			
(172) Immucor	RV	>>>	8	8,9	Positive			
(743) Antibody screening (IAT, recipient)			161			161	154	96
Samples E1 and S1			161			161	155	96
(14) Bio-Rad			5	3,1	Negative			
	RV	>>>	70	43	Positive			
(40) Ortho Clinical Diagnostics	RV	>>>	1	0,6	Positive			
(80) DiaMed			1	0,6	Negative			
	RV	>>>	11	6,8	Positive			
(159) Grifols	RV	>>>	70	43	Positive			
(172) Immucor	RV	>>>	3	1,9	Positive			
Samples E2 and S2			161			161	160	99
(14) Bio-Rad	RV	>>>	75	47	Positive			
(40) Ortho Clinical Diagnostics	RV	>>>	1	0,6	Positive			
(80) DiaMed			1	0,6	Negative			
	RV	>>>	11	6,8	Positive			
(159) Grifols	RV	>>>	70	43	Positive			
(172) Immucor	RV	>>>	3	1,9	Positive			
(745) Antibody screening (IAT, pregnant)			133			133	126	95
Samples E1 and S1			133			133	127	95
(14) Bio-Rad			5	3,8	Negative			
	RV	>>>	52	39	Positive			
(40) Ortho Clinical Diagnostics	RV	>>>	1	0,8	Positive			
(64) Exbio Olomouc	RV	>>>	1	0,8	Positive			
(80) DiaMed			1	0,8	Negative			
	RV	>>>	9	6,8	Positive			
(159) Grifols	RV	>>>	62	47	Positive			
(172) Immucor	RV	>>>	2	1,5	Positive			
Samples E2 and S2			133			133	132	99
(14) Bio-Rad	RV	>>>	57	43	Positive			
(40) Ortho Clinical Diagnostics	RV	>>>	1	0,8	Positive			
(64) Exbio Olomouc	RV	>>>	1	0,8	Positive			
(80) DiaMed			1	0,8	Negative			
	RV	>>>	9	6,8	Positive			
(159) Grifols	RV	>>>	62	47	Positive			
(172) Immucor	RV	>>>	2	1,5	Positive			
(747) Antibody screening (enzyme test)			102			102	101	99
Samples E1 and S1			102			102	102	100
(14) Bio-Rad	RV	>>>	47	46	Positive			
(40) Ortho Clinical Diagnostics	RV	>>>	1	1	Positive			
(80) DiaMed	RV	>>>	7	6,9	Positive			
(159) Grifols	RV	>>>	45	44	Positive			
(172) Immucor	RV	>>>	2	2	Positive			
Samples E2 and S2			102			102	101	99
(14) Bio-Rad	RV	>>>	47	46	Positive			
(40) Ortho Clinical Diagnostics	RV	>>>	1	1	Positive			
(80) DiaMed	RV	>>>	7	6,9	Positive			
(159) Grifols	RV	>>>	45	44	Positive			
(172) Immucor			1	1	Negative			
	RV	>>>	1	1	Positive			
(750) Antibody identification			48			48	39	81
Samples E1 and S1			48			48	41	85
(0) not specified			5	10	anti-Jka			
	RV	>>>	41	85	anti-Jka; anti-E			
			1	2,1	anti-Jka; anti-E; anti-Wra			
			1	2,1	anti-Jka; anti-P1			
Samples E2 and S2			48			48	41	85
(0) not specified			7	15	anti-K			
	RV	>>>	41	85	anti-K; anti-E			
(752) Antibody titre, Sample 1: 1st antibody			39			0		
Samples E1 and S1			39			0		
(0) not specified		±	4	10	titre 0 (not measurable)			
		±	5	13	titre 1			
		±	18	46	titre 2			
		±	7	18	titre 4			
		±	4	10	titre 8			
		±	1	2,6	titre 16			

EQA round: IH1/24 - Blood Group Serology

Deadline: 8.3.2024

Setup: groups - R (manufacturer of kit)

Test Sample Group	Frequency of the results				Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]
(753) Antibody titre, Sample 1: 2nd antibody		19				0	
Samples E1 and S1		19				0	
(0) not specified	±	5	26	titre 0 (not measurable)			
	±	5	26	titre 1			
	±	5	26	titre 2			
	±	2	11	titre 4			
	±	2	11	titre 8			
(756) Antibody titre, Sample 2: 1st antibody		40				0	
Samples E2 and S2		40				0	
(0) not specified	±	1	2,5	titre 2			
	±	2	5	titre 32			
	±	7	18	titre 64			
	±	22	55	titre 128			
	±	6	15	titre 256			
	±	2	5	titre 512			
(757) Antibody titre, Sample 2: 2nd antibody		14				0	
Samples E2 and S2		14				0	
(0) not specified	±	5	36	titre 0 (not measurable)			
	±	4	29	titre 1			
	±	4	29	titre 2			
	±	1	7,1	titre 4			
Set 3							
(761) Crossmatch (segment K1)		130				130	130 100
Sample S1		130				130	130 100
(0) not specified		>	14	11	Negative test		
	RV	>>>	116	89	Positive test		
Sample S2		130				130	130 100
(0) not specified	RV	>>>	130	100	Positive test		
(762) Serve transfusion product? (segment K1)		130				0	
(transfusion in non-emergency mode)							
Sample S1		130				0	
(0) not specified	±	118	91	Impossible, risk of haemolysis			
	±	11	8,5	Decision depends on results of other tests not performed in our laboratory			
	±	1	0,8	Possible			
Sample S2		130				0	
(0) not specified	±	129	99	Impossible, risk of haemolysis			
	±	1	0,8	Decision depends on results of other tests not performed in our laboratory			
(764) Crossmatch (segment K2)		130				130	128 98
Sample S1		130				130	130 100
(0) not specified		>	1	0,8	Negative test		
	RV	>>>	129	99	Positive test		
Sample S2		130				130	128 98
(0) not specified	RV	>>>	128	98	Negative test		
		2	1,5	Positive test			
(765) Serve transfusion product? (segment K2)		130				0	
(transfusion in non-emergency mode)							
Sample S1		130				0	
(0) not specified	±	128	98	Impossible, risk of haemolysis			
	±	2	1,5	Decision depends on results of other tests not performed in our laboratory			
Sample S2		130				0	
(0) not specified	±	53	41	Impossible, risk of haemolysis			
	±	54	42	Decision depends on results of other tests not performed in our laboratory			
	±	9	6,9	Only if more suitable products are not available			
	±	14	11	Possible			