

## EQA round: IH3/23 - Blood Group Serology

Deadline: 29.9.2023

Setup: groups - manufacturer of kit

AV = assigned value

RV = reference value

&gt;&gt;&gt; ... expected result

&gt; ... acceptable result

± ... result not assessed

N<sub>tot</sub> = total number of the resultsN<sub>rel</sub> = relative number of the resultsN<sub>eva</sub> = number of the results assessedN<sub>suc</sub> = number of successful resultsS<sub>rel</sub> = relative success

Test Sample Group	Frequency of the results					Success			
	AV	N <sub>tot</sub>	N <sub>rel</sub> [%]	Result	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub> [%]		
<b>Set 1 and 2</b>									
<b>(700) ABO blood group</b>		165					165	165	100
<b>Samples E1 and S1</b>		165					165	165	100
(6) APR	RV >>>	1	0,6	Blood group: 0					
(14) Bio-Rad	RV >>>	54	33	Blood group: 0					
(40) Ortho Clinical Diagnostics	RV >>>	1	0,6	Blood group: 0					
(52) Dynex	RV >>>	1	0,6	Blood group: 0					
(64) Exbio Olomouc	RV >>>	5	3	Blood group: 0					
(80) DiaMed	RV >>>	6	3,6	Blood group: 0					
(159) Grifols	RV >>>	60	36	Blood group: 0					
(171) Diagast	RV >>>	2	1,2	Blood group: 0					
(172) Immucor	RV >>>	21	13	Blood group: 0					
(173) Sanguin	RV >>>	4	2,4	Blood group: 0					
(174) IVT Imuno	RV >>>	4	2,4	Blood group: 0					
(183) Immunodiagnostic Systems	RV >>>	2	1,2	Blood group: 0					
(999) another manufacturer	RV >>>	4	2,4	Blood group: 0					
<b>Samples E2 and S2</b>		165					165	165	100
(6) APR	RV >>>	1	0,6	Blood group: B					
(14) Bio-Rad	RV >>>	54	33	Blood group: B					
(40) Ortho Clinical Diagnostics	RV >>>	1	0,6	Blood group: B					
(52) Dynex	RV >>>	1	0,6	Blood group: B					
(64) Exbio Olomouc	RV >>>	5	3	Blood group: B					
(80) DiaMed	RV >>>	6	3,6	Blood group: B					
(159) Grifols	RV >>>	60	36	Blood group: B					
(171) Diagast	RV >>>	2	1,2	Blood group: B					
(172) Immucor	RV >>>	21	13	Blood group: B					
(173) Sanguin	RV >>>	4	2,4	Blood group: B					
(174) IVT Imuno	RV >>>	4	2,4	Blood group: B					
(183) Immunodiagnostic Systems	RV >>>	2	1,2	Blood group: B					
(999) another manufacturer	RV >>>	4	2,4	Blood group: B					
<b>(705) Rh D antigen (blood-donor)</b>		98					98	97	99
<b>Samples E1 and S1</b>		98					98	98	100
(0) not specified	RV >>>	1	1	Positive (RhD+)					
(6) APR	RV >>>	1	1	Positive (RhD+)					
(14) Bio-Rad	RV >>>	30	31	Positive (RhD+)					
(52) Dynex	RV >>>	1	1	Positive (RhD+)					
(64) Exbio Olomouc	RV >>>	1	1	Positive (RhD+)					
(80) DiaMed	RV >>>	3	3,1	Positive (RhD+)					
(159) Grifols	RV >>>	36	37	Positive (RhD+)					
(171) Diagast	RV >>>	1	1	Positive (RhD+)					
(172) Immucor	RV >>>	17	17	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	2	Positive (RhD+)					
(999) another manufacturer	RV >>>	2	2	Positive (RhD+)					
<b>Samples E2 and S2</b>		98					98	97	99
(0) not specified		1	1	Not specified					
(6) APR	RV >>>	1	1	Negative (RhD-)					
(14) Bio-Rad	RV >>>	30	31	Negative (RhD-)					
(52) Dynex	RV >>>	1	1	Negative (RhD-)					
(64) Exbio Olomouc	RV >>>	1	1	Negative (RhD-)					
(80) DiaMed	RV >>>	3	3,1	Negative (RhD-)					
(159) Grifols	RV >>>	36	37	Negative (RhD-)					
(171) Diagast	RV >>>	1	1	Negative (RhD-)					
(172) Immucor	RV >>>	17	17	Negative (RhD-)					
(173) Sanguin	RV >>>	1	1	Negative (RhD-)					
(174) IVT Imuno	RV >>>	1	1	Negative (RhD-)					
(183) Immunodiagnostic Systems	RV >>>	1	1	Negative (RhD-)					
(203) ANTITOXIN	RV >>>	2	2	Negative (RhD-)					
(999) another manufacturer	RV >>>	2	2	Negative (RhD-)					
<b>(709) Rh D antigen (recipient/ pregnant/ newborn)</b>		155					155	155	100

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Test Sample Group	Frequency of the results					Success		
	AV	N <sub>tot</sub>	N <sub>rel</sub> [%]	Result	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub> [%]	
<b>Samples E1 and S1</b>					155	155	155	100
(14) Bio-Rad	RV >>>	51	33	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	3,2	Positive (RhD+)				
(80) DiaMed	RV >>>	5	3,2	Positive (RhD+)				
(159) Grifols	RV >>>	56	36	Positive (RhD+)				
(170) Biotest	RV >>>	1	0,6	Positive (RhD+)				
(171) Diagast	RV >>>	2	1,3	Positive (RhD+)				
(172) Immucor	RV >>>	21	14	Positive (RhD+)				
(173) Sanguin	RV >>>	4	2,6	Positive (RhD+)				
(174) IVT Imuno	RV >>>	2	1,3	Positive (RhD+)				
(183) Immunodiagnostic Systems	RV >>>	1	0,6	Positive (RhD+)				
(203) ANTITOXIN	RV >>>	2	1,3	Positive (RhD+)				
(999) another manufacturer	RV >>>	3	1,9	Positive (RhD+)				
<b>Samples E2 and S2</b>					155	155	100	
(14) Bio-Rad	RV >>>	51	33	Negative (RhD-)				
(40) Ortho Clinical Diagnostics	RV >>>	1	0,6	Negative (RhD-)				
(52) Dynex	RV >>>	1	0,6	Negative (RhD-)				
(64) Exbio Olomouc	RV >>>	5	3,2	Negative (RhD-)				
(80) DiaMed	RV >>>	5	3,2	Negative (RhD-)				
(159) Grifols	RV >>>	56	36	Negative (RhD-)				
(170) Biotest	RV >>>	1	0,6	Negative (RhD-)				
(171) Diagast	RV >>>	2	1,3	Negative (RhD-)				
(172) Immucor	RV >>>	21	14	Negative (RhD-)				
(173) Sanguin	RV >>>	4	2,6	Negative (RhD-)				
(174) IVT Imuno	RV >>>	2	1,3	Negative (RhD-)				
(183) Immunodiagnostic Systems	RV >>>	1	0,6	Negative (RhD-)				
(203) ANTITOXIN	RV >>>	2	1,3	Negative (RhD-)				
(999) another manufacturer	RV >>>	3	1,9	Negative (RhD-)				
<b>(715) Antigen C</b>					86	86	100	
<b>Samples E1 and S1</b>					86	86	100	
(14) Bio-Rad	RV >>>	32	37	Positive				
(50) Merck	RV >>>	1	1,2	Positive				
(80) DiaMed	RV >>>	6	7	Positive				
(159) Grifols	RV >>>	35	41	Positive				
(171) Diagast	RV >>>	1	1,2	Positive				
(172) Immucor	RV >>>	7	8,1	Positive				
(183) Immunodiagnostic Systems	RV >>>	1	1,2	Positive				
(203) ANTITOXIN	RV >>>	2	2,3	Positive				
(999) another manufacturer	RV >>>	1	1,2	Positive				
<b>Samples E2 and S2</b>					86	86	100	
(14) Bio-Rad	RV >>>	32	37	Negative				
(50) Merck	RV >>>	1	1,2	Negative				
(80) DiaMed	RV >>>	6	7	Negative				
(159) Grifols	RV >>>	35	41	Negative				
(171) Diagast	RV >>>	1	1,2	Negative				
(172) Immucor	RV >>>	7	8,1	Negative				
(183) Immunodiagnostic Systems	RV >>>	1	1,2	Negative				
(203) ANTITOXIN	RV >>>	2	2,3	Negative				
(999) another manufacturer	RV >>>	1	1,2	Negative				
<b>(716) Antigen c</b>					86	86	100	
<b>Samples E1 and S1</b>					86	86	100	
(14) Bio-Rad	RV >>>	32	37	Negative				
(50) Merck	RV >>>	1	1,2	Negative				
(80) DiaMed	RV >>>	6	7	Negative				
(159) Grifols	RV >>>	35	41	Negative				
(171) Diagast	RV >>>	1	1,2	Negative				
(172) Immucor	RV >>>	7	8,1	Negative				
(183) Immunodiagnostic Systems	RV >>>	1	1,2	Negative				
(203) ANTITOXIN	RV >>>	2	2,3	Negative				
(999) another manufacturer	RV >>>	1	1,2	Negative				
<b>Samples E2 and S2</b>					86	86	100	
(14) Bio-Rad	RV >>>	32	37	Positive				
(50) Merck	RV >>>	1	1,2	Positive				
(80) DiaMed	RV >>>	6	7	Positive				
(159) Grifols	RV >>>	35	41	Positive				
(171) Diagast	RV >>>	1	1,2	Positive				
(172) Immucor	RV >>>	7	8,1	Positive				

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	AV	N <sub>tot</sub>	N <sub>rel</sub> [%]	Result	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub> [%]	
(183) Immunodiagnostic Systems	RV	>>>	1	1,2	Positive			
(203) ANTITOXIN	RV	>>>	2	2,3	Positive			
(999) another manufacturer	RV	>>>	1	1,2	Positive			
<b>(718) Antigen E</b>			87			87	87	100
<b>Samples E1 and S1</b>			87			87	87	100
(14) Bio-Rad	RV	>>>	32	37	Negative			
(50) Merck	RV	>>>	1	1,1	Negative			
(80) DiaMed	RV	>>>	6	6,9	Negative			
(159) Grifols	RV	>>>	36	41	Negative			
(171) Diagast	RV	>>>	1	1,1	Negative			
(172) Immucor	RV	>>>	7	8	Negative			
(183) Immunodiagnostic Systems	RV	>>>	1	1,1	Negative			
(203) ANTITOXIN	RV	>>>	2	2,3	Negative			
(999) another manufacturer	RV	>>>	1	1,1	Negative			
<b>Samples E2 and S2</b>			87			87	87	100
(14) Bio-Rad	RV	>>>	32	37	Positive			
(50) Merck	RV	>>>	1	1,1	Positive			
(80) DiaMed	RV	>>>	6	6,9	Positive			
(159) Grifols	RV	>>>	36	41	Positive			
(171) Diagast	RV	>>>	1	1,1	Positive			
(172) Immucor	RV	>>>	7	8	Positive			
(183) Immunodiagnostic Systems	RV	>>>	1	1,1	Positive			
(203) ANTITOXIN	RV	>>>	2	2,3	Positive			
(999) another manufacturer	RV	>>>	1	1,1	Positive			
<b>(719) Antigen e</b>			86			86	85	99
<b>Samples E1 and S1</b>			86			86	86	100
(14) Bio-Rad	RV	>>>	31	36	Positive			
(17) Biogema	RV	>>>	1	1,2	Positive			
(50) Merck	RV	>>>	1	1,2	Positive			
(80) DiaMed	RV	>>>	6	7	Positive			
(159) Grifols	RV	>>>	35	41	Positive			
(171) Diagast	RV	>>>	1	1,2	Positive			
(172) Immucor	RV	>>>	7	8,1	Positive			
(183) Immunodiagnostic Systems	RV	>>>	1	1,2	Positive			
(203) ANTITOXIN	RV	>>>	2	2,3	Positive			
(999) another manufacturer	RV	>>>	1	1,2	Positive			
<b>Samples E2 and S2</b>			86			86	85	99
(14) Bio-Rad	RV	>>>	31	36	Positive			
(17) Biogema	RV	>>>	1	1,2	Positive			
(50) Merck	RV	>>>	1	1,2	Positive			
(80) DiaMed	RV	>>>	6	7	Positive			
(159) Grifols	RV	>>>	1	1,2	Negative			
	RV	>>>	34	40	Positive			
(171) Diagast	RV	>>>	1	1,2	Positive			
(172) Immucor	RV	>>>	7	8,1	Positive			
(183) Immunodiagnostic Systems	RV	>>>	1	1,2	Positive			
(203) ANTITOXIN	RV	>>>	2	2,3	Positive			
(999) another manufacturer	RV	>>>	1	1,2	Positive			
<b>(717) Antigen C<sup>w</sup></b>			74			74	74	100
<b>Samples E1 and S1</b>			74			74	74	100
(14) Bio-Rad	RV	>>>	23	31	Positive			
(50) Merck	RV	>>>	1	1,4	Positive			
(80) DiaMed	RV	>>>	2	2,7	Positive			
(159) Grifols	RV	>>>	36	49	Positive			
(170) Biotest	RV	>>>	1	1,4	Positive			
(172) Immucor	RV	>>>	6	8,1	Positive			
(173) Sanguin	RV	>>>	2	2,7	Positive			
(174) IVT Imuno	RV	>>>	1	1,4	Positive			
(203) ANTITOXIN	RV	>>>	1	1,4	Positive			
(999) another manufacturer	RV	>>>	1	1,4	Positive			
<b>Samples E2 and S2</b>			74			74	74	100
(14) Bio-Rad	RV	>>>	23	31	Negative			
(50) Merck	RV	>>>	1	1,4	Negative			
(80) DiaMed	RV	>>>	2	2,7	Negative			
(159) Grifols	RV	>>>	36	49	Negative			
(170) Biotest	RV	>>>	1	1,4	Negative			
(172) Immucor	RV	>>>	6	8,1	Negative			
(173) Sanguin	RV	>>>	2	2,7	Negative			
(174) IVT Imuno	RV	>>>	1	1,4	Negative			

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Test Sample Group	Frequency of the results					Success		
	AV	N <sub>tot</sub>	N <sub>rel</sub> [%]	Result	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub> [%]	
(203) ANTITOXIN	RV	>>>	1	1,4	Negative			
(999) another manufacturer	RV	>>>	1	1,4	Negative			
<b>(720) Antigen K</b>			92			92	92	100
<b>Samples E1 and S1</b>			92			92	92	100
(14) Bio-Rad	RV	>>>	33	36	Negative			
(50) Merck	RV	>>>	1	1,1	Negative			
(80) DiaMed	RV	>>>	6	6,5	Negative			
(159) Grifols	RV	>>>	41	45	Negative			
(171) Diagast	RV	>>>	1	1,1	Negative			
(172) Immucor	RV	>>>	7	7,6	Negative			
(183) Immunodiagnostic Systems	RV	>>>	1	1,1	Negative			
(203) ANTITOXIN	RV	>>>	1	1,1	Negative			
(999) another manufacturer	RV	>>>	1	1,1	Negative			
<b>Samples E2 and S2</b>			92			92	92	100
(14) Bio-Rad	RV	>>>	33	36	Negative			
(50) Merck	RV	>>>	1	1,1	Negative			
(80) DiaMed	RV	>>>	6	6,5	Negative			
(159) Grifols	RV	>>>	41	45	Negative			
(171) Diagast	RV	>>>	1	1,1	Negative			
(172) Immucor	RV	>>>	7	7,6	Negative			
(183) Immunodiagnostic Systems	RV	>>>	1	1,1	Negative			
(203) ANTITOXIN	RV	>>>	1	1,1	Negative			
(999) another manufacturer	RV	>>>	1	1,1	Negative			
<b>(721) Antigen k</b>			40			40	40	100
<b>Samples E1 and S1</b>			40			40	40	100
(14) Bio-Rad	RV	>>>	10	25	Positive			
(64) Exbio Olomouc	RV	>>>	1	2,5	Positive			
(80) DiaMed	RV	>>>	1	2,5	Positive			
(159) Grifols	RV	>>>	11	28	Positive			
(172) Immucor	RV	>>>	9	23	Positive			
(173) Sanguin	RV	>>>	7	18	Positive			
(999) another manufacturer	RV	>>>	1	2,5	Positive			
<b>Samples E2 and S2</b>			40			40	40	100
(14) Bio-Rad	RV	>>>	10	25	Positive			
(64) Exbio Olomouc	RV	>>>	1	2,5	Positive			
(80) DiaMed	RV	>>>	1	2,5	Positive			
(159) Grifols	RV	>>>	11	28	Positive			
(172) Immucor	RV	>>>	9	23	Positive			
(173) Sanguin	RV	>>>	7	18	Positive			
(999) another manufacturer	RV	>>>	1	2,5	Positive			
<b>(738) Antigen Kp<sup>a</sup></b>			18			18	18	100
<b>Samples E1 and S1</b>			18			18	18	100
(0) not specified	RV	>>>	1	5,6	Negative			
(14) Bio-Rad	RV	>>>	6	33	Negative			
(159) Grifols	RV	>>>	8	44	Negative			
(172) Immucor	RV	>>>	2	11	Negative			
(183) Immunodiagnostic Systems	RV	>>>	1	5,6	Negative			
<b>Samples E2 and S2</b>			18			18	18	100
(0) not specified	RV	>>>	1	5,6	Negative			
(14) Bio-Rad	RV	>>>	6	33	Negative			
(159) Grifols	RV	>>>	8	44	Negative			
(172) Immucor	RV	>>>	2	11	Negative			
(183) Immunodiagnostic Systems	RV	>>>	1	5,6	Negative			
<b>(739) Antigen Kp<sup>b</sup></b>			10			10	10	100
<b>Samples E1 and S1</b>			10			10	10	100
(14) Bio-Rad	RV	>>>	3	30	Positive			
(159) Grifols	RV	>>>	4	40	Positive			
(172) Immucor	RV	>>>	2	20	Positive			
(183) Immunodiagnostic Systems	RV	>>>	1	10	Positive			
<b>Samples E2 and S2</b>			10			10	10	100
(14) Bio-Rad	RV	>>>	3	30	Positive			
(159) Grifols	RV	>>>	4	40	Positive			
(172) Immucor	RV	>>>	2	20	Positive			
(183) Immunodiagnostic Systems	RV	>>>	1	10	Positive			
<b>(729) Antigen Jk<sup>a</sup></b>			43			43	42	98
<b>Samples E1 and S1</b>			43			43	42	98
(0) not specified	RV	>>>	1	2,3	Positive			
(14) Bio-Rad	RV	>>>	12	28	Positive			
(64) Exbio Olomouc	RV	>>>	2	4,7	Positive			

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(80) DiaMed	RV	>>>	1	2,3	Positive			
(159) Grifols	RV	>>>	17	40	Positive			
(172) Immucor	RV	>>>	4	9,3	Positive			
(173) Sanguin	RV	>>>	5	12	Positive			
(203) ANTITOXIN			1	2,3	Negative			
<b>Samples E2 and S2</b>			43			43	43	100
(0) not specified	RV	>>>	1	2,3	Positive			
(14) Bio-Rad	RV	>>>	12	28	Positive			
(64) Exbio Olomouc	RV	>>>	2	4,7	Positive			
(80) DiaMed	RV	>>>	1	2,3	Positive			
(159) Grifols	RV	>>>	17	40	Positive			
(172) Immucor	RV	>>>	4	9,3	Positive			
(173) Sanguin	RV	>>>	5	12	Positive			
(203) ANTITOXIN	RV	>>>	1	2,3	Positive			
(730) <b>Antigen Jk<sup>b</sup></b>			43			43	41	95
<b>Samples E1 and S1</b>			43			43	41	95
(0) not specified	RV	>>>	1	2,3	Positive			
(14) Bio-Rad	RV	>>>	12	28	Positive			
(64) Exbio Olomouc	RV	>>>	2	4,7	Positive			
(80) DiaMed	RV	>>>	1	2,3	Positive			
(159) Grifols			1	2,3	Negative			
	RV	>>>	16	37	Positive			
(172) Immucor	RV	>>>	4	9,3	Positive			
(173) Sanguin	RV	>>>	5	12	Positive			
(203) ANTITOXIN			1	2,3	Negative			
<b>Samples E2 and S2</b>			43			43	43	100
(0) not specified	RV	>>>	1	2,3	Negative			
(14) Bio-Rad	RV	>>>	12	28	Negative			
(64) Exbio Olomouc	RV	>>>	2	4,7	Negative			
(80) DiaMed	RV	>>>	1	2,3	Negative			
(159) Grifols	RV	>>>	17	40	Negative			
(172) Immucor	RV	>>>	4	9,3	Negative			
(173) Sanguin	RV	>>>	5	12	Negative			
(203) ANTITOXIN	RV	>>>	1	2,3	Negative			
(727) <b>Antigen Fy<sup>a</sup></b>			43			43	43	100
<b>Samples E1 and S1</b>			43			43	43	100
(14) Bio-Rad	RV	>>>	14	33	Negative			
(64) Exbio Olomouc	RV	>>>	1	2,3	Negative			
(80) DiaMed	RV	>>>	1	2,3	Negative			
(159) Grifols	RV	>>>	18	42	Negative			
(172) Immucor	RV	>>>	4	9,3	Negative			
(173) Sanguin	RV	>>>	4	9,3	Negative			
(203) ANTITOXIN	RV	>>>	1	2,3	Negative			
<b>Samples E2 and S2</b>			43			43	43	100
(14) Bio-Rad	RV	>>>	14	33	Positive			
(64) Exbio Olomouc	RV	>>>	1	2,3	Positive			
(80) DiaMed	RV	>>>	1	2,3	Positive			
(159) Grifols	RV	>>>	18	42	Positive			
(172) Immucor	RV	>>>	4	9,3	Positive			
(173) Sanguin	RV	>>>	4	9,3	Positive			
(203) ANTITOXIN	RV	>>>	1	2,3	Positive			
(728) <b>Antigen Fy<sup>b</sup></b>			43			43	43	100
<b>Samples E1 and S1</b>			43			43	43	100
(14) Bio-Rad	RV	>>>	14	33	Positive			
(64) Exbio Olomouc	RV	>>>	1	2,3	Positive			
(80) DiaMed	RV	>>>	1	2,3	Positive			
(159) Grifols	RV	>>>	17	40	Positive			
(172) Immucor	RV	>>>	4	9,3	Positive			
(173) Sanguin	RV	>>>	4	9,3	Positive			
(203) ANTITOXIN	RV	>>>	2	4,7	Positive			
<b>Samples E2 and S2</b>			43			43	43	100
(14) Bio-Rad	RV	>>>	14	33	Positive			
(64) Exbio Olomouc	RV	>>>	1	2,3	Positive			
(80) DiaMed	RV	>>>	1	2,3	Positive			
(159) Grifols	RV	>>>	17	40	Positive			
(172) Immucor	RV	>>>	4	9,3	Positive			
(173) Sanguin	RV	>>>	4	9,3	Positive			
(203) ANTITOXIN	RV	>>>	2	4,7	Positive			

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<b>(722) Antigen M</b>		42			42	42	100	
<b>Samples E1 and S1</b>		42			42	42	100	
(14) Bio-Rad	RV >>>	12	29	Positive				
(64) Exbio Olomouc	RV >>>	1	2,4	Positive				
(80) DiaMed	RV >>>	2	4,8	Positive				
(159) Grifols	RV >>>	15	36	Positive				
(172) Immucor	RV >>>	5	12	Positive				
(173) Sanguin	RV >>>	3	7,1	Positive				
(183) Immunodiagnostic Systems	RV >>>	1	2,4	Positive				
(203) ANTITOXIN	RV >>>	3	7,1	Positive				
<b>Samples E2 and S2</b>		42			42	42	100	
(14) Bio-Rad	RV >>>	12	29	Positive				
(64) Exbio Olomouc	RV >>>	1	2,4	Positive				
(80) DiaMed	RV >>>	2	4,8	Positive				
(159) Grifols	RV >>>	15	36	Positive				
(172) Immucor	RV >>>	5	12	Positive				
(173) Sanguin	RV >>>	3	7,1	Positive				
(183) Immunodiagnostic Systems	RV >>>	1	2,4	Positive				
(203) ANTITOXIN	RV >>>	3	7,1	Positive				
<b>(723) Antigen N</b>		40			40	40	100	
<b>Samples E1 and S1</b>		40			40	40	100	
(14) Bio-Rad	RV >>>	12	30	Negative				
(64) Exbio Olomouc	RV >>>	1	2,5	Negative				
(80) DiaMed	RV >>>	2	5	Negative				
(159) Grifols	RV >>>	15	38	Negative				
(171) Diagast	RV >>>	1	2,5	Negative				
(172) Immucor	RV >>>	4	10	Negative				
(173) Sanguin	RV >>>	2	5	Negative				
(183) Immunodiagnostic Systems	RV >>>	1	2,5	Negative				
(203) ANTITOXIN	RV >>>	2	5	Negative				
<b>Samples E2 and S2</b>		40			40	40	100	
(14) Bio-Rad	RV >>>	12	30	Positive				
(64) Exbio Olomouc	RV >>>	1	2,5	Positive				
(80) DiaMed	RV >>>	2	5	Positive				
(159) Grifols	RV >>>	15	38	Positive				
(171) Diagast	RV >>>	1	2,5	Positive				
(172) Immucor	RV >>>	4	10	Positive				
(173) Sanguin	RV >>>	2	5	Positive				
(183) Immunodiagnostic Systems	RV >>>	1	2,5	Positive				
(203) ANTITOXIN	RV >>>	2	5	Positive				
<b>(724) Antigen S</b>		42			42	42	100	
<b>Samples E1 and S1</b>		42			42	42	100	
(14) Bio-Rad	RV >>>	13	31	Positive				
(64) Exbio Olomouc	RV >>>	1	2,4	Positive				
(80) DiaMed	RV >>>	2	4,8	Positive				
(159) Grifols	RV >>>	17	40	Positive				
(172) Immucor	RV >>>	4	9,5	Positive				
(173) Sanguin	RV >>>	3	7,1	Positive				
(203) ANTITOXIN	RV >>>	2	4,8	Positive				
<b>Samples E2 and S2</b>		42			42	42	100	
(14) Bio-Rad	RV >>>	13	31	Negative				
(64) Exbio Olomouc	RV >>>	1	2,4	Negative				
(80) DiaMed	RV >>>	2	4,8	Negative				
(159) Grifols	RV >>>	17	40	Negative				
(172) Immucor	RV >>>	4	9,5	Negative				
(173) Sanguin	RV >>>	3	7,1	Negative				
(203) ANTITOXIN	RV >>>	2	4,8	Negative				
<b>(725) Antigen s</b>		42			42	42	100	
<b>Samples E1 and S1</b>		42			42	42	100	
(14) Bio-Rad	RV >>>	13	31	Positive				
(64) Exbio Olomouc	RV >>>	1	2,4	Positive				
(80) DiaMed	RV >>>	2	4,8	Positive				
(159) Grifols	RV >>>	18	43	Positive				
(172) Immucor	RV >>>	3	7,1	Positive				
(173) Sanguin	RV >>>	4	9,5	Positive				
(203) ANTITOXIN	RV >>>	1	2,4	Positive				
<b>Samples E2 and S2</b>		42			42	42	100	
(14) Bio-Rad	RV >>>	13	31	Positive				
(64) Exbio Olomouc	RV >>>	1	2,4	Positive				

## EQA round: IH3/23 - Blood Group Serology

Deadline: 29.9.2023

Setup: groups - manufacturer of kit

Test Sample Group	Frequency of the results					Success		
	AV	N <sub>tot</sub>	N <sub>rel</sub> [%]	Result	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub> [%]	
(80) DiaMed	RV	>>>	2	4,8	Positive			
(159) Grifols	RV	>>>	18	43	Positive			
(172) Immucor	RV	>>>	3	7,1	Positive			
(173) Sanguin	RV	>>>	4	9,5	Positive			
(203) ANTITOXIN	RV	>>>	1	2,4	Positive			
<b>(733) Antigen Le<sup>a</sup></b>			35			35	34	97
<b>Samples E1 and S1</b>			35			35	34	97
(14) Bio-Rad	RV	>>>	13	37	Negative			
(64) Exbio Olomouc	RV	>>>	1	2,9	Negative			
(159) Grifols	RV	>>>	12	34	Negative			
			1	2,9	Positive			
(172) Immucor	RV	>>>	2	5,7	Negative			
(173) Sanguin	RV	>>>	1	2,9	Negative			
(174) IVT Imuno	RV	>>>	1	2,9	Negative			
(183) Immunodiagnostic Systems	RV	>>>	1	2,9	Negative			
(203) ANTITOXIN	RV	>>>	3	8,6	Negative			
<b>Samples E2 and S2</b>			35			35	35	100
(14) Bio-Rad	RV	>>>	13	37	Negative			
(64) Exbio Olomouc	RV	>>>	1	2,9	Negative			
(159) Grifols	RV	>>>	13	37	Negative			
(172) Immucor	RV	>>>	2	5,7	Negative			
(173) Sanguin	RV	>>>	1	2,9	Negative			
(174) IVT Imuno	RV	>>>	1	2,9	Negative			
(183) Immunodiagnostic Systems	RV	>>>	1	2,9	Negative			
(203) ANTITOXIN	RV	>>>	3	8,6	Negative			
<b>(734) Antigen Le<sup>b</sup></b>			35			35	35	100
<b>Samples E1 and S1</b>			35			35	35	100
(14) Bio-Rad	RV	>>>	13	37	Positive			
(64) Exbio Olomouc	RV	>>>	1	2,9	Positive			
(159) Grifols	RV	>>>	14	40	Positive			
(172) Immucor	RV	>>>	2	5,7	Positive			
(174) IVT Imuno	RV	>>>	1	2,9	Positive			
(183) Immunodiagnostic Systems	RV	>>>	1	2,9	Positive			
(203) ANTITOXIN	RV	>>>	2	5,7	Positive			
(999) another manufacturer	RV	>>>	1	2,9	Positive			
<b>Samples E2 and S2</b>			35			35	35	100
(14) Bio-Rad	RV	>>>	13	37	Positive			
(64) Exbio Olomouc	RV	>>>	1	2,9	Positive			
(159) Grifols	RV	>>>	14	40	Positive			
(172) Immucor	RV	>>>	2	5,7	Positive			
(174) IVT Imuno	RV	>>>	1	2,9	Positive			
(183) Immunodiagnostic Systems	RV	>>>	1	2,9	Positive			
(203) ANTITOXIN	RV	>>>	2	5,7	Positive			
(999) another manufacturer	RV	>>>	1	2,9	Positive			
<b>(731) Antigen Lu<sup>a</sup></b>			31			31	31	100
<b>Samples E1 and S1</b>			31			31	31	100
(14) Bio-Rad	RV	>>>	9	29	Negative			
(64) Exbio Olomouc	RV	>>>	1	3,2	Negative			
(159) Grifols	RV	>>>	17	55	Negative			
(172) Immucor	RV	>>>	1	3,2	Negative			
(183) Immunodiagnostic Systems	RV	>>>	2	6,5	Negative			
(999) another manufacturer	RV	>>>	1	3,2	Negative			
<b>Samples E2 and S2</b>			31			31	31	100
(14) Bio-Rad	RV	>>>	9	29	Negative			
(64) Exbio Olomouc	RV	>>>	1	3,2	Negative			
(159) Grifols	RV	>>>	17	55	Negative			
(172) Immucor	RV	>>>	1	3,2	Negative			
(183) Immunodiagnostic Systems	RV	>>>	2	6,5	Negative			
(999) another manufacturer	RV	>>>	1	3,2	Negative			
<b>(732) Antigen Lu<sup>b</sup></b>			30			30	30	100
<b>Samples E1 and S1</b>			30			30	30	100
(14) Bio-Rad	RV	>>>	8	27	Positive			
(64) Exbio Olomouc	RV	>>>	1	3,3	Positive			
(159) Grifols	RV	>>>	16	53	Positive			
(172) Immucor	RV	>>>	1	3,3	Positive			
(173) Sanguin	RV	>>>	1	3,3	Positive			
(183) Immunodiagnostic Systems	RV	>>>	1	3,3	Positive			
(203) ANTITOXIN	RV	>>>	1	3,3	Positive			
(999) another manufacturer	RV	>>>	1	3,3	Positive			

## EQA round: IH3/23 - Blood Group Serology

Deadline: 29.9.2023

Setup: groups - manufacturer of kit

Test Sample Group	Frequency of the results					Success		
	AV	N <sub>tot</sub>	N <sub>rel</sub> [%]	Result	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub> [%]	
<b>Samples E2 and S2</b>		30				30	30	100
(14) Bio-Rad	RV >>>	8	27	Positive				
(64) Exbio Olomouc	RV >>>	1	3,3	Positive				
(159) Grifols	RV >>>	16	53	Positive				
(172) Immucor	RV >>>	1	3,3	Positive				
(173) Sanguin	RV >>>	1	3,3	Positive				
(183) Immunodiagnostic Systems	RV >>>	1	3,3	Positive				
(203) ANTITOXIN	RV >>>	1	3,3	Positive				
(999) another manufacturer	RV >>>	1	3,3	Positive				
<b>(726) Antigen P1</b>		30				30	30	100
<b>Samples E1 and S1</b>		30				30	30	100
(14) Bio-Rad	RV >>>	10	33	Positive				
(64) Exbio Olomouc	RV >>>	1	3,3	Positive				
(80) DiaMed	RV >>>	1	3,3	Positive				
(159) Grifols	RV >>>	9	30	Positive				
(172) Immucor	RV >>>	2	6,7	Positive				
(173) Sanguin	RV >>>	4	13	Positive				
(174) IVT Imuno	RV >>>	1	3,3	Positive				
(183) Immunodiagnostic Systems	RV >>>	1	3,3	Positive				
(203) ANTITOXIN	RV >>>	1	3,3	Positive				
<b>Samples E2 and S2</b>		30				30	30	100
(14) Bio-Rad	RV >>>	10	33	Positive				
(64) Exbio Olomouc	RV >>>	1	3,3	Positive				
(80) DiaMed	RV >>>	1	3,3	Positive				
(159) Grifols	RV >>>	9	30	Positive				
(172) Immucor	RV >>>	2	6,7	Positive				
(173) Sanguin	RV >>>	4	13	Positive				
(174) IVT Imuno	RV >>>	1	3,3	Positive				
(183) Immunodiagnostic Systems	RV >>>	1	3,3	Positive				
(203) ANTITOXIN	RV >>>	1	3,3	Positive				
<b>(740) Antigen Wr<sup>a</sup></b>		7				7	7	100
<b>Samples E1 and S1</b>		7				7	7	100
(159) Grifols	RV >>>	2	29	Negative				
(172) Immucor	RV >>>	2	29	Negative				
(173) Sanguin	RV >>>	3	43	Negative				
<b>Samples E2 and S2</b>		7				7	7	100
(159) Grifols	RV >>>	2	29	Negative				
(172) Immucor	RV >>>	2	29	Negative				
(173) Sanguin	RV >>>	3	43	Negative				
<b>(737) Direct Coombs (antiglobulin) test</b>		123				123	123	100
<b>Samples E1 and S1</b>		123				123	123	100
(14) Bio-Rad	RV >>>	54	44	Negative				
(40) Ortho Clinical Diagnostics	RV >>>	1	0,8	Negative				
(64) Exbio Olomouc	RV >>>	1	0,8	Negative				
(80) DiaMed	RV >>>	16	13	Negative				
(159) Grifols	RV >>>	49	40	Negative				
(172) Immucor	RV >>>	2	1,6	Negative				
<b>Samples E2 and S2</b>		123				123	123	100
(14) Bio-Rad	RV >>>	54	44	Negative				
(40) Ortho Clinical Diagnostics	RV >>>	1	0,8	Negative				
(64) Exbio Olomouc	RV >>>	1	0,8	Negative				
(80) DiaMed	RV >>>	16	13	Negative				
(159) Grifols	RV >>>	49	40	Negative				
(172) Immucor	RV >>>	2	1,6	Negative				
<b>(741) Antibody screening (IAT, blood donor)</b>		84				84	83	99
<b>Samples E1 and S1</b>		84				84	84	100
(14) Bio-Rad	RV >>>	31	37	Positive				
(64) Exbio Olomouc	RV >>>	1	1,2	Positive				
(80) DiaMed	RV >>>	9	11	Positive				
(159) Grifols	RV >>>	31	37	Positive				
(171) Diagast	RV >>>	2	2,4	Positive				
(172) Immucor	RV >>>	10	12	Positive				
<b>Samples E2 and S2</b>		84				84	83	99
(14) Bio-Rad		1	1,2	Negative				
	RV >>>	30	36	Positive				
(64) Exbio Olomouc	RV >>>	1	1,2	Positive				
(80) DiaMed	RV >>>	9	11	Positive				
(159) Grifols	RV >>>	31	37	Positive				
(171) Diagast	RV >>>	2	2,4	Positive				



## EQA round: IH3/23 - Blood Group Serology

Deadline: 29.9.2023

Setup: groups - manufacturer of kit

Test Sample Group	Frequency of the results					Success		
	AV	N <sub>tot</sub>	N <sub>rel</sub> [%]	Result	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub> [%]	
(172) Immucor	RV	>>>	10	12	Positive			
<b>(743) Antibody screening (IAT, recipient)</b>			144			144	144	100
<b>Samples E1 and S1</b>			144			144	144	100
(14) Bio-Rad	RV	>>>	62	43	Positive			
(40) Ortho Clinical Diagnostics	RV	>>>	1	0,7	Positive			
(80) DiaMed	RV	>>>	15	10	Positive			
(159) Grifols	RV	>>>	60	42	Positive			
(172) Immucor	RV	>>>	6	4,2	Positive			
<b>Samples E2 and S2</b>			144			144	144	100
(14) Bio-Rad	RV	>>>	62	43	Positive			
(40) Ortho Clinical Diagnostics	RV	>>>	1	0,7	Positive			
(80) DiaMed	RV	>>>	15	10	Positive			
(159) Grifols	RV	>>>	60	42	Positive			
(172) Immucor	RV	>>>	6	4,2	Positive			
<b>(745) Antibody screening (IAT, pregnant)</b>			119			119	119	100
<b>Samples E1 and S1</b>			119			119	119	100
(0) not specified	RV	>>>	1	0,8	Positive			
(14) Bio-Rad	RV	>>>	46	39	Positive			
(40) Ortho Clinical Diagnostics	RV	>>>	1	0,8	Positive			
(64) Exbio Olomouc	RV	>>>	1	0,8	Positive			
(80) DiaMed	RV	>>>	12	10	Positive			
(159) Grifols	RV	>>>	53	45	Positive			
(172) Immucor	RV	>>>	5	4,2	Positive			
<b>Samples E2 and S2</b>			119			119	119	100
(0) not specified	RV	>>>	1	0,8	Positive			
(14) Bio-Rad	RV	>>>	46	39	Positive			
(40) Ortho Clinical Diagnostics	RV	>>>	1	0,8	Positive			
(64) Exbio Olomouc	RV	>>>	1	0,8	Positive			
(80) DiaMed	RV	>>>	12	10	Positive			
(159) Grifols	RV	>>>	53	45	Positive			
(172) Immucor	RV	>>>	5	4,2	Positive			
<b>(747) Antibody screening (enzyme test)</b>			90			90	90	100
<b>Samples E1 and S1</b>			90			90	90	100
(14) Bio-Rad	RV	>>>	39	43	Negative			
	RV	>>>	1	1,1	Positive			
(40) Ortho Clinical Diagnostics	RV	>>>	1	1,1	Negative			
(80) DiaMed	RV	>>>	9	10	Negative			
(159) Grifols	RV	>>>	36	40	Negative			
	RV	>>>	2	2,2	Positive			
(172) Immucor	RV	>>>	2	2,2	Negative			
<b>Samples E2 and S2</b>			90			90	90	100
(14) Bio-Rad	RV	>>>	38	42	Negative			
	RV	>>>	2	2,2	Positive			
(40) Ortho Clinical Diagnostics	RV	>>>	1	1,1	Negative			
(80) DiaMed	RV	>>>	9	10	Negative			
(159) Grifols	RV	>>>	35	39	Negative			
	RV	>>>	3	3,3	Positive			
(172) Immucor	RV	>>>	2	2,2	Negative			
<b>(750) Antibody identification</b>			49			49	49	100
<b>Samples E1 and S1</b>			49			49	49	100
(0) not specified	RV	>>>	43	88	anti-Fya			
	RV	>>>	6	12	anti-Fya; anti-Lua			
<b>Samples E2 and S2</b>			49			49	49	100
(0) not specified	RV	>>>	49	100	anti-S			
<b>(752) Antibody titre, Sample 1: 1st antibody</b>			39			0		
<b>Samples E1 and S1</b>			39			0		
(0) not specified		±	9	23	titre 8			
		±	18	46	titre 16			
		±	10	26	titre 32			
		±	2	5,1	titre 64			
<b>(753) Antibody titre, Sample 1: 2nd antibody</b>			4			0		
<b>Samples E1 and S1</b>			4			0		
(0) not specified		±	2	50	titre 0 (not measurable)			
		±	2	50	titre 1			
<b>(756) Antibody titre, Sample 2: 1st antibody</b>			38			0		
<b>Samples E2 and S2</b>			38			0		
(0) not specified		±	1	2,6	titre 1			
		±	15	39	titre 2			
		±	15	39	titre 4			

Setup: groups - manufacturer of kit

Test Sample Group	Frequency of the results				Success			
	AV	N <sub>tot</sub>	N <sub>rel</sub> [%]	Result	N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub> [%]	
	±	7	18	titre 8				
<b>Set 3</b>								
(760) <b>Crossmatch</b>			115			115	115	100
<b>Sample S1</b>			115			115	115	100
All results	RV	>>>	115	100	Crossmatch successful			
<b>Sample S2</b>			115			115	115	100
All results	RV	>>>	115	100	Crossmatch successful			
(761) <b>Crossmatch (segment K1)</b>			115			115	115	100
<b>Sample S1</b>			115			115	115	100
(0) not specified	RV	>>>	115	100	Positive test			
<b>Sample S2</b>			115			115	115	100
(0) not specified	RV	>>>	115	100	Positive test			
(762) <b>Serve transfusion product? (segment K1)</b> <b>(transfusion in non-emergency mode)</b>			115					0
<b>Sample S1</b>			115					0
(0) not specified	±	114	99	Impossible, risk of haemolysis				
	±	1	0,9	Decision depends on results of other tests not performed in our laboratory				
<b>Sample S2</b>			115					0
(0) not specified	±	115	100	Impossible, risk of haemolysis				
(764) <b>Crossmatch (segment K2)</b>			115			115	115	100
<b>Sample S1</b>			115			115	115	100
(0) not specified	RV	>>>	115	100	Positive test			
<b>Sample S2</b>			115			115	115	100
(0) not specified	RV	>>>	115	100	Negative test			
(765) <b>Serve transfusion product? (segment K2)</b> <b>(transfusion in non-emergency mode)</b>			114					0
<b>Sample S1</b>			114					0
(0) not specified	±	113	99	Impossible, risk of haemolysis				
	±	1	0,9	Decision depends on results of other tests not performed in our laboratory				
<b>Sample S2</b>			114					0
(0) not specified	±	3	2,6	Impossible, risk of haemolysis				
	±	50	44	Decision depends on results of other tests not performed in our laboratory				
	±	18	16	Only if more suitable products are not available				
	±	43	38	Possible				