

EQA round: IH1/23 - Blood Group Serology

Deadline: 10.3.2023

Setup: all data

AV = assigned value

RV = reference value

>>> ... expected result

> ... acceptable result

± ... result not assessed

N_{tot} = total number of the resultsN_{rel} = relative number of the resultsN_{eva} = number of the results assessedN_{suc} = number of successful resultsS_{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		189			189	189	100
Samples E1 and S1		189			189	189	100
All results	RV >>>	189	100	Blood group: A			
Samples E2 and S2		189			189	189	100
All results	RV >>>	189	100	Blood group: 0			
(703) A subgroup		49			49	48	98
Samples E1 and S1		49			49	48	98
All results	RV >>>	48	98	A subgroup A1 2 A subgroup A2			
Samples E2 and S2		49			49	49	100
All results	RV >>>	49	100	Not specified			
(705) Rh D antigen (blood-donor)		113			113	111	98
Samples E1 and S1		113			113	111	98
All results	RV >>>	2	1,8	Not specified 98 Negative (RhD-)			
Samples E2 and S2		113			113	113	100
All results	RV >>>	113	100	Positive (RhD+)			
(709) Rh D antigen (recipient/ pregnant/ newborn)		182			182	181	99
Samples E1 and S1		182			182	182	100
All results	RV >>>	182	100	Negative (RhD-)			
Samples E2 and S2		182			182	181	99
All results	RV >>>	1	0,5	Negative (RhD-) 99 Positive (RhD+)			
(715) Antigen C		95			95	95	100
Samples E1 and S1		95			95	95	100
All results	RV >>>	95	100	Negative			
Samples E2 and S2		95			95	95	100
All results	RV >>>	95	100	Positive			
(716) Antigen c		95			95	94	99
Samples E1 and S1		95			95	94	99
All results	RV >>>	1	1,1	Negative 99 Positive			
Samples E2 and S2		95			95	95	100
All results	RV >>>	95	100	Negative			
(718) Antigen E		96			96	96	100
Samples E1 and S1		96			96	96	100
All results	RV >>>	96	100	Negative			
Samples E2 and S2		96			96	96	100
All results	RV >>>	96	100	Negative			
(719) Antigen e		95			95	95	100
Samples E1 and S1		95			95	95	100
All results	RV >>>	95	100	Positive			
Samples E2 and S2		95			95	95	100
All results	RV >>>	95	100	Positive			
(717) Antigen C^w		79			79	79	100
Samples E1 and S1		79			79	79	100
All results	RV >>>	79	100	Negative			
Samples E2 and S2		79			79	79	100
All results	RV >>>	79	100	Negative			
(720) Antigen K		103			103	103	100
Samples E1 and S1		103			103	103	100
All results	RV >>>	103	100	Negative			
Samples E2 and S2		103			103	103	100
All results	RV >>>	103	100	Negative			
(721) Antigen k		43			43	43	100
Samples E1 and S1		43			43	43	100
All results	RV >>>	43	100	Positive			
Samples E2 and S2		43			43	43	100
All results	RV >>>	43	100	Positive			
(738) Antigen Kp^a		19			19	17	89
Samples E1 and S1		19			19	19	100
All results	RV >>>	19	100	Negative			

Setup: all data

Test Sample Group	Frequency of the results				Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]
Samples E2 and S2		19			19	17	89
All results		2	11	Not specified			
	RV >>>	17	89	Negative			
(739) Antigen Kp^b		10			10	8	80
Samples E1 and S1		10			10	10	100
All results	RV >>>	10	100	Positive			
Samples E2 and S2		10			10	8	80
All results		2	20	Not specified			
	RV >>>	8	80	Positive			
(729) Antigen Jk^a		48			48	47	98
Samples E1 and S1		48			48	47	98
All results		1	2,1	Negative			
	RV >>>	47	98	Positive			
Samples E2 and S2		48			48	48	100
All results	RV >>>	48	100	Positive			
(730) Antigen Jk^b		47			47	47	100
Samples E1 and S1		47			47	47	100
All results	RV >>>	47	100	Negative			
Samples E2 and S2		47			47	47	100
All results	RV >>>	47	100	Negative			
(727) Antigen Fy^a		48			48	47	98
Samples E1 and S1		48			48	47	98
All results		1	2,1	Not specified			
	RV >>>	47	98	Positive			
Samples E2 and S2		48			48	48	100
All results	RV >>>	48	100	Negative			
(728) Antigen Fy^b		48			48	47	98
Samples E1 and S1		48			48	47	98
All results		1	2,1	Not specified			
	RV >>>	47	98	Positive			
Samples E2 and S2		48			48	48	100
All results	RV >>>	48	100	Positive			
(722) Antigen M		46			46	46	100
Samples E1 and S1		46			46	46	100
All results	RV >>>	46	100	Positive			
Samples E2 and S2		46			46	46	100
All results	RV >>>	46	100	Positive			
(723) Antigen N		44			44	43	98
Samples E1 and S1		44			44	43	98
All results		1	2,3	Negative			
	RV >>>	43	98	Positive			
Samples E2 and S2		44			44	43	98
All results		1	2,3	Negative			
	RV >>>	43	98	Positive			
(724) Antigen S		47			47	47	100
Samples E1 and S1		47			47	47	100
All results	RV >>>	47	100	Negative			
Samples E2 and S2		47			47	47	100
All results	RV >>>	47	100	Negative			
(725) Antigen s		47			47	47	100
Samples E1 and S1		47			47	47	100
All results	RV >>>	47	100	Positive			
Samples E2 and S2		47			47	47	100
All results	RV >>>	47	100	Positive			
(733) Antigen Le^a		37			37	37	100
Samples E1 and S1		37			37	37	100
All results	RV >>>	37	100	Negative			
Samples E2 and S2		37			37	37	100
All results	RV >>>	37	100	Negative			
(734) Antigen Le^b		37			37	32	86
Samples E1 and S1		37			37	32	86
All results		5	14	Negative			
	RV >>>	32	86	Positive			
Samples E2 and S2		37			37	37	100
All results	RV >>>	37	100	Positive			
(731) Antigen Lu^a		33			33	32	97
Samples E1 and S1		33			33	33	100
All results	RV >>>	33	100	Negative			

Setup: all data

Test Sample Group	Frequency of the results				Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]
Samples E2 and S2		33			33	32	97
All results		1	3	Negative			
	RV >>>	32	97	Positive			
(732) Antigen Lu^b		31			31	30	97
Samples E1 and S1		31			31	30	97
All results		1	3,2	Negative			
	RV >>>	30	97	Positive			
Samples E2 and S2		31			31	31	100
All results	RV >>>	31	100	Positive			
(726) Antigen P1		35			35	34	97
Samples E1 and S1		35			35	34	97
All results		1	2,9	Negative			
	RV >>>	34	97	Positive			
Samples E2 and S2		35			35	35	100
All results	RV >>>	35	100	Positive			
(740) Antigen Wr^a		5			5	5	100
Samples E1 and S1		5			5	5	100
All results	RV >>>	5	100	Negative			
Samples E2 and S2		5			5	5	100
All results	RV >>>	5	100	Negative			
(737) Direct Coombs (antiglobulin) test		147			147	144	98
Samples E1 and S1		147			147	144	98
All results	RV >>>	144	98	Negative			
		3	2	Positive			
Samples E2 and S2		147			147	146	99
All results	RV >>>	146	99	Negative			
		1	0,7	Positive			
(741) Antibody screening (IAT, blood donor)		93			93	92	99
Samples E1 and S1		93			93	92	99
All results		1	1,1	Not specified			
	RV >>>	92	99	Positive			
Samples E2 and S2		93			93	93	100
All results		> 40	43	Negative			
	RV >>>	53	57	Positive			
(743) Antibody screening (IAT, recipient)		166			166	166	100
Samples E1 and S1		166			166	166	100
All results	RV >>>	166	100	Positive			
Samples E2 and S2		166			166	166	100
All results		> 54	33	Negative			
	RV >>>	112	67	Positive			
(745) Antibody screening (IAT, pregnant)		135			135	135	100
Samples E1 and S1		135			135	135	100
All results	RV >>>	135	100	Positive			
Samples E2 and S2		135			135	135	100
All results		> 39	29	Negative			
	RV >>>	96	71	Positive			
(747) Antibody screening (enzyme test)		104			104	103	99
Samples E1 and S1		104			104	103	99
All results		1	1	Negative			
	RV >>>	103	99	Positive			
Samples E2 and S2		104			104	104	100
All results		> 27	26	Negative			
	RV >>>	77	74	Positive			
(750) Antibody identification		51			51	48	94
Samples E1 and S1		51			51	51	100
All results		> 12	24	anti-D			
	RV >>>	39	76	anti-D; anti-Kpa			
Samples E2 and S2		51			51	48	94
All results		2	3,9	Not specified			
	RV >>>	48	94	anti-Jkb			
		1	2	anti-Lua			
(752) Antibody titre, Sample 1: 1st antibody		43			0		
Samples E1 and S1		43			0		
All results		± 1	2,3	titre 8			
		± 13	30	titre 16			
		± 10	23	titre 32			
		± 15	35	titre 64			
		± 4	9,3	titre 128			

Setup: all data

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							
Samples E1 and S1		30				0	
All results	±	4	13	titre 0 (not measurable)			
	±	23	77	titre 1			
	±	3	10	titre 2			
(756) Antibody titre, Sample 2: 1st antibody							
Samples E2 and S2		37				0	
All results	±	10	27	titre 0 (not measurable)			
	±	19	51	titre 1			
	±	7	19	titre 2			
	±	1	2,7	titre 4			
Set 3							
(760) Crossmatch							
Sample S1		137				137	117 85
All results		20	15	Crossmatch not successful			
	RV >>>	117	85	Crossmatch successful			
Sample S2		137				137	137 100
All results	RV >>>	137	100	Crossmatch successful			
(761) Crossmatch (segment K1)							
Sample S1		137				137	117 85
All results		20	15	Negative test			
	RV >>>	117	85	Positive test			
Sample S2		137				137	137 100
All results	RV >>>	122	89	Negative test			
	RV >>>	15	11	Positive test			
(762) Serve transfusion product? (segment K1) (transfusion in non-emergency mode)							
Sample S1		137				0	
All results	±	114	83	Impossible, risk of haemolysis			
	±	11	8	Decision depends on results of other tests not performed in our laboratory			
	±	6	4,4	Only if more suitable products are not available			
	±	6	4,4	Possible			
Sample S2		137				0	
All results	±	45	33	Impossible, risk of haemolysis			
	±	52	38	Decision depends on results of other tests not performed in our laboratory			
	±	6	4,4	Only if more suitable products are not available			
	±	34	25	Possible			
(764) Crossmatch (segment K2)							
Sample S1		137				137	137 100
All results	RV >>>	137	100	Positive test			
Sample S2		137				137	137 100
All results	RV >>>	137	100	Negative test			
(765) Serve transfusion product? (segment K2) (transfusion in non-emergency mode)							
Sample S1		137				0	
All results	±	136	99	Impossible, risk of haemolysis			
	±	1	0,7	Decision depends on results of other tests not performed in our laboratory			
Sample S2		137				0	
All results	±	3	2,2	Impossible, risk of haemolysis			
	±	54	39	Decision depends on results of other tests not performed in our laboratory			
	±	17	12	Only if more suitable products are not available			
	±	63	46	Possible			