

UK NEQAS for H&I Scheme 2B - Crossmatching by Flow Cytometry

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B04/2017 (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 14TH MARCH 2017

HLA PHENOTYPE OF BLOOD DONOR: HLA-A2, -; B55, B60; Cw9, Cw10; DR13, -; DQ6, -

Summary of Results													
T-cells					B-cells								
Total tested	18	18	17	18	17	16	14	16					
Positive	1	15	4	0	1	11	3	1					
Negative	17	3	13	18	16	5	11	15					
NT/Equivocal	5	5	6	5	5	6	8	6					
% Positive	5.6%	83.3%	23.5%	0.0%	5.9%	68.8%	21.4%	6.3%					
% Negative	94.4%	16.7%	76.5%	100.0%	94.1%	31.3%	78.6%	93.8%					
Consensus	Negative	Positive	Negative	Negative	Negative	Not Assessed	Negative	Negative					
HLA Antibody Specificity (Defined By CDC)	DR4 DR9	A2 A28 A9	B44	A11	DR4 DR9	A2 A28 A9	B44	A11					
T-cells					B-cells								
Lab No.	Serum 1	Serum 2	Serum 3	Serum 4	Serum 1	Serum 2	Serum 3	Serum 4	Date Received	Date Tested	Viability (%)	Comments	
23	NT	NT	NT	NT	NT	NT	NT	NT	15-Mar	15-Mar		Very low cell yield, plasma unusually clumpy	
34	Negative	Positive	Negative	Negative	Negative	Positive	Positive	Negative	13-Mar	15-Mar	95		
54	Negative	Positive	Positive	Negative	Negative	Positive	Negative	Negative	15-Mar	15-Mar			
58	Negative	Positive	Equivocal	Negative	Negative	Positive	Equivocal	Negative	15-Mar	15-Mar			
62	Negative	Positive	Positive	Negative	Negative	Positive	Equivocal	Negative	15-Mar	16-Mar	99		
101	Negative	Positive	Negative	Negative	Negative	Negative	Negative	Negative	15-Mar	16-Mar			
114	NT	NT	NT	NT	NT	NT	NT	NT	20-Mar	NT		Samples were delivered haemolysed	
133	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	17-Mar	17-Mar	99		
136	Negative	Positive	Negative	Negative					15-Mar	16-Mar	99		
142	Negative	Positive	Negative	Negative	Negative	Negative	Negative	Negative	16-Mar	17-Mar	87		
163	Negative	Positive	Positive	Negative	Negative	Positive	Positive	Negative	13-Mar	16-Mar	96		
185	NT	NT	NT	NT	NT	NT	NT	NT	15-Mar			Not tested, technique still under validation	
186	Negative	Positive	Positive	Negative	Negative	Negative	Negative	Positive	15-Mar	15-Mar	99		
202	Negative	Positive	Negative	Negative	Negative	Positive	Equivocal	Equivocal	16-Mar	16-Mar	60	Late delivery of sample	
204	Negative	Positive	Negative	Negative	Negative	Positive	Positive	Negative	15-Mar	15-Mar			
206	Negative	Positive	Negative	Negative	Negative	Equivocal	Negative	Negative	16-Mar	16-Mar	95	B-cell serum 2 was found negative despite a T-cell positive result.	
227	NT	NT	NT	NT	NT	NT	NT	NT	15-Mar			Technical failure	
230	Positive	Negative	Negative	Negative	Positive	Positive	Negative	Negative	20-Mar	20-Mar	50		
245	Negative	Positive	Negative	Negative	Negative	Positive	Negative	Negative	15-Mar	16-Mar	100		
276	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	16-Mar	20-Mar	90		
284	Negative	Positive	Negative	Negative	Negative	Positive	Negative	Negative	15-Mar	15-Mar			
302	NT	NT	NT	NT	NT	NT	NT	NT	22-Mar	22-Mar	20	The samples could not be tested because the cell viability was about 20%. Samples received late.	
358	Negative	Positive	Negative	Negative	Negative	Positive	Negative	Negative	16-Mar	16-Mar			Low cell viability

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Lab No.	Serum 1 cytometer reading	Serum 2 cytometer reading	Serum 3 cytometer reading	Serum 4 cytometer reading	Negative control (local)	Positive control (local)	Strong positive (local)	Weak positive (local)	Positive result value	Cytometer reading units
23	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
34	4.5	9.81	4.67	3.98	4.67	15.1			5.63	MEDIAN FL1
54	258,271,249	502,505,503	367, 353, 362	288, 304, 290	276,286,279,284,295,313	848,549			≥1.2 x MESF of neg control	MCS
58	237	881	299	244	223	2040			1.5x mean 335	log median
62	0.45	3.0	0.7085	0.5365	0.452	33.6			RMF >1.5	median log channel
101	-	-	-	-	-	-	-	-	-	-
114	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
133	0.6	1.1	0.3	0.4	2.2	19.4			2SD	median fluorescence intensity
136	2.4	11.4	2.7	2.4	2.2	17 NR=773			NR >200	NR - Relative Number
142	402	679	417	6	454	6953			587(454+3SD)	Median Log Channel
163	0.9	20.7	2.6	1.2	1	16.3			2.3	Geomean linear channel (serum/negative control)
185										
186	0.39	2.63	0.71	0.42	0.39	14			1.5 fold the local negative control	Mean fluorescence intensity-Log channel
202	1.1%	33.6%	0.6%	1.3%	0.5%	99.9%			5%	Cell Percentage
204	0.4	2.32	0.4	0.41	0.43	34.5			0.64 = 1.5X loc neg control	Mean log channel
206	3.13	3.55	3.15	3.2	3.15	23.41			Ratio(MFI-serum/MFI-NC)>1.07	
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
230	64.07	5.8	6.45	6.52	7.74	128.39			MFI	
245	0.8	14.3	2.8	0.8	3.7 mean linear channel	8.3			7	Linear channel shift
276	207	336	272	248	138	2770			2SD	Median fluorescence intensity
284	334	423	337	321	330		1332	406	sample serum/NC ratio >1.2	Median log channel
302	NT	NT	NT	NT	NT	NT	NT	NT	NT	Beckman Coulter Navios Flow Cytometer
358	-	-	-	-	-	-	-	-	-	MFI

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B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B04/2017 (COMPARED TO LOCAL NEGATIVE CONTROL)

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Lab No.	Serum 1 cytometer reading	Serum 2 cytometer reading	Serum 3 cytometer reading	Serum 4 cytometer reading	Negative control (local)	Positive control (local)	Strong positive (local)	Weak positive (local)	Positive result value	Cytometer reading units
23	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
34	2.9	4.94	7.22	3.13	2.53	47.2			4	MEDIAN FL1
54	457,467	530,551	507,528	476,484	476,494,481,513,506,488	879,585			≥1.2 x MESF of neg control	MCS
58	390	1358	976	373	461	4511			1.5x mean 692	log median
62	1.12	5.01	2.865	1.11	1.053	57.1			RMF >3	median log channel
101	-	-	-	-	-	-	-	-	-	-
114	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
133	0.9	2.1	0.4	0.6	3	29			2SD	median fluorescence intensity
142	286	255	240	125	167	3485			637(167+3SD)	Median Log Channel
163	1.0	5.6	2.4	1.1	1	6.4			1.7	Geomean linear channel (serum/negative control)
185										
186	0.92	0.86	0.76	1.74	0.8	42.6			2 fold the negative local control	Mean fluorescence intensity-Log channel
202	1.8%	17.5%	7.1%	7%	1.1%	100%			8%	Cell Percentage
204	0.51	3.27	1.77	0.87	0.79	48.5			1.57 = 2x loc neg control	Mean log channel
206	3.81	4.22	3.75	3.74	3.8	31.79			Ratio(MFI-serum/MFI-NC)>1.17	
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
230	56.42	54.03	7.31	5.65	6.04	245.72			MFI	
245	1.3	14.8	6.3	0.8	5.7 mean linear channel	47.8			15	Linear channel shift
276	413	496	294	436	365	2554			2SD	Median fluorescence intensity
284	257	356	287	246	270		2219	371	sample serum/NC ratio >1.2	Median log channel
302	NT	NT	NT	NT	NT	NT	NT	NT	NT	Beckman Coulter Navios Flow Cytometer
358	-	-	-	-	-	-	-	-	-	MFI