

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B07/2015 (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 07TH JULY 2015

HLA PHENOTYPE OF BLOOD DONOR: HLA-A2, A3; B7, - ; Cw7, - ; DR11, DR13; DQ6, DQ7

Summary of Results												
T-cells					B-cells							
Total tested	46	46	45	46	41	43	38	39				
Positive	4	3	2	41	5	1	20	23				
Negative	42	43	43	5	36	42	18	16				
NT/Equivocal	4	4	5	4	6	4	9	8				
% Positive	8.7%	6.5%	4.4%	89.1%	12.2%	2.3%	52.6%	59.0%				
% Negative	91.3%	93.5%	95.6%	10.9%	87.8%	97.7%	47.4%	41.0%				
Consensus	Negative	Negative	Negative	Positive	Negative	Negative	Not Assessed	Not Assessed				
HLA Antibody Specificity (Defined By CDC)	DR7, DQ2	B12	Cw5, DR4	A3	DR7, DQ2	B12	Cw5, DR4	A3				
T-cells				B-cells				Date Received	Date Tested	Comments		
Lab No.	Serum 1	Serum 2	Serum 3	Serum 4	Serum 1	Serum 2	Serum 3	Serum 4				
112	Positive	Negative	Negative	Positive	Positive	Negative	Positive	Positive	13-Jul	13-Jul		
114	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	08-Jul	09-Jul		
115	Negative	Negative	Negative	Positive	Negative	Negative	Positive	Positive	08-Jul	09-Jul		
116	Negative	Negative	Negative	Positive	Negative	Negative	Negative	Negative	08-Jul	09-Jul		
117	Negative	Negative	Equivocal	Positive	Negative	Negative	Equivocal	Positive	09-Jul	09-Jul		
118	Positive	Positive	Negative	Positive	Negative	Negative	Negative	Negative	08-Jul	08-Jul		
119	Negative	Negative	Negative	Positive	Negative	Negative	Positive	Positive	07-Jul	08-Jul		
	Negative	Negative	Negative	Positive	Negative	Negative	Positive	Equivocal	09-Jul	10-Jul	Serum 4 gave incoherent results on B cells regarding results found on T cells and there was not enough cells to repeat the test.	
120												
122	Negative	Negative	Negative	Positive	Positive	Negative	Positive	Positive	08-Jul	09-Jul		
126	Negative	Negative	Negative	Positive	Positive	Negative	Positive	Positive	08-Jul	09-Jul		
130	Negative	Negative	Negative	Positive	Negative	Negative	Positive	Positive	08-Jul	09-Jul		
136	Negative	Negative	Negative	Positive					08-Jul	09-Jul		
138	Negative	Negative	Negative	Positive					08-Jul	08-Jul		
139	Negative	Negative	Negative	Positive	Negative	Negative	Negative	Negative	10-Jul	10-Jul		
142	Positive	Positive	Positive	Positive	Negative	Negative	Negative	Negative	08-Jul	09-Jul		
143	Negative	Negative	Negative	Positive					09-Jul	10-Jul		
144	Negative	Negative	Negative	Positive	Negative	Negative	Negative	Negative	09-Jul	09-Jul		
145	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	07-Jul	08-Jul		
147	Negative	Negative	Negative	Positive	Negative	Negative	Equivocal	Positive	07-Jul	07-Jul		
154	Negative	Negative	Negative	Positive	Negative	Negative	Positive	Weak Positive	09-Jul	09-Jul		
157	Negative	Negative	Negative	Positive	Negative	Negative	Negative	Positive	09-Jul	09-Jul		
159	Negative	Negative	Negative	Positive	Positive	Negative	Positive	Positive	08-Jul	09-Jul		
160	Negative	Negative	Negative	Positive	Negative	Negative	Negative	Positive	08-Jul	09-Jul		
163	Negative	Negative	Negative	Positive	Negative	Negative	Positive	Positive	08-Jul	09-Jul	Strong background staining on B cells.	
167	Negative	Negative	Negative	Positive	Negative	Negative	Equivocal	Equivocal	10-Jul	10-Jul		
169	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	08-Jul	09-Jul		
174	NT	NT	NT	NT	NT	NT	NT	NT	13-Jul	15-Jul		
176	Negative	Negative	Negative	Positive	Negative	Negative	Negative	Negative	08-Jul	09-Jul	B cell serum 3+4: weak reaction, probably positive but below current threshold.	
											High background MFI on B cells.	
186	Negative	Negative	Negative	Positive	Negative	Negative	Negative	Negative	08-Jul	08-Jul		
190	Negative	Negative	Negative	Positive	Negative	Negative	Equivocal	Positive	08-Jul	08-Jul		
191	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	08-Jul	08-Jul		
193	Negative	Negative	Negative	Positive	Negative	Negative	Positive	Equivocal	09-Jul	09-Jul		
194	Negative	Negative	Negative	Positive	Equivocal	Negative	Equivocal	Positive	08-Jul	08-Jul		
195	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	Samples delayed in transit	
201	Negative	Negative	Negative	Positive	Negative	Negative	Positive	Negative	08-Jul	09-Jul		
202	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	08-Jul	08-Jul		
204	Negative	Negative	Negative	Positive	Negative	Negative	Positive	Negative	09-Jul	09-Jul		
209	Negative	Negative	Negative	Positive	Equivocal	Negative	Positive	Positive	08-Jul	09-Jul		
218	Positive	Positive	Negative	Positive	Positive	Positive	Negative	Negative	09-Jul	10-Jul		
220	Negative	Negative	Negative	Positive	Negative	Negative	Negative	Positive	08-Jul	09-Jul		
227	NT	NT	NT	NT	NT	NT	NT	NT	08-Jul	08-Jul	Technical failure	
235	Negative	Negative	Negative	Positive	Negative	Negative	Positive	Positive	08-Jul	08-Jul		
238	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	08-Jul	09-Jul		
245	Negative	Negative	Negative	Positive	Negative	Negative	Negative	Equivocal	08-Jul	09-Jul		
246	Negative	Negative	Negative	Positive	Negative	Negative	Positive	Positive	08-Jul	08-Jul		
252	Negative	Negative	Negative	Positive	Negative	Negative	Positive	Positive	09-Jul	09-Jul		
262	Negative	Negative	Negative	Weak Positive	Negative	Negative	Weak Positive	Weak Positive	08-Jul	09-Jul		
271	NT	NT	NT	NT	NT	NT	NT	NT	26-Jul	NT	Sampels delayed in transit	
283	Negative	Negative	Negative	Positive	Negative	Negative	Negative	Negative	08-Jul	08-Jul		
284	Negative	Negative	Negative	Positive	Negative	Negative	Positive	Negative	08-Jul	08-Jul		

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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	FCXM NIBSC negative control used?	Viability (%)
112	0.608	0.291	0.307	1.37	0.315	5.61			Ratio >1.5	Median log channel	No	95
114	225	218	188	252	232	379			282 (negative + 50 linear channel)	Median linear channel	No	86
115	200	201	197	429	219	398			>40 Median linear channel shifts	Median linear channel shifts	Yes	
116	0.19	0.16	0.17	2.04	0.2	30			Ratio >1.7	Median log channel	No	
117	5.86	5.6		15.53	5.64	86.25			Ratio (RMF) >1.3	Median log channel	Yes	
118	141	130	124	264	102	675			124 (102+22)	Median linear channel	Yes	90
119	0.253	0.21	0.213	1.9	0.201	23.9			Ratio: Pos >1.289 (B-line -1.45)	MnIX	No	95
120	1.05	1	0.98	2.88	95.5	11512.5			Ratio >1.6	Median	No	100
122	8.5	7.5	8.5	49.5	8		179	60	3SD	Geomean linear values	No	98
126	113	107	106.5	404.5	119.5	720			>80 linear channel shift	Median linear channel	No	
130	190	187	185	344	185	375			>40		No	
136	2.5	2.6	2.4	23	2.83	70 (NR = 2471)			NR >200	Mean channel	No	98
138	0.03	0.03	0.02	0.45	0	0.98			>0.20	D value Kolmogorov-Smirnoff	No	
139	0.32	0.337	0.321	1.3	0.373	3.07			≥ 1.5 of neg mean log channel	Mean log channel	No	
142	181	188	177	355	163.7	4858			172.8 Median log channel 3SD	Median log channel	No	95
143	8	9	16	140	20	551			≥ 40	Geomean linear channel	No	95
144	1.06	1.03	1	2.46	1	5.8			1.7	Ratio	No	
145	0.102	0.102	0.321	0.324	0.102	57.2			Med log ch test/Med log ch neg >mean +2SD	Median log channel	No	96
147	137	125	117	188	130	445			>40 linear channel shift	Median linear channel	No	100
154	63	62	65	269	64.5	538			Median > 150% control and shape of the curve	MFI	No	NT
157	118	124	121	188	118	129			133 (Neg+15) 2SD	Median linear channel	No	92
159	161	152	153	334	153	471			193 (40 mean linear channel shift)	Mean linear channel	No	
160	6.4	6.8	7.2	33.9	7.4	134			>15.8 (Neg+2SD)	Mean linear channel	No	
163	1.1	0.9	1	17.3	1	5.2			2.3	Geomean log channel	Yes	100
167	234	225	226	2004	207	23257			2SD	Median log channel	No	92
169	MLC 39.07	28.97	36.26	55.34	96.5	845.68						
174	NR 40	30	38	57		880			Positive = NR>180	Mean log channel	No	80
176	SI 0.02	0	0.01	1.21	0	1.32			NT	NT	No	NT
186	MESF 1351	1270	1304	14140	1281	17237			SI ≥0.50	SI	No	NT
190	0.582	0.508	0.505	5.04	0.485	23.4			1.5 x local negative	MFI log channel	No	99
191	42.6	40.13	39.6	204	38.37	111			Ratio samples/Neg >1.5	Median log channel	No	91
193	4.23	8.35	-5.8	9	0	75			MFI >15	MFI	Yes	100
194	4.88	4.12	4.68	48.2	3.99	191.09			Neg control mean x2.5	Geometric mean linear channel	No	
195	0.1	0.02	0.03	2.8	0.2	51			R>0.7	Median log	No	97
201	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
202	0.261	0.245	0.236	1.9	0.218	61.8			x-mean sample/x-mean NC ≥ 2	x-mean	No	97
204	1.5	0.8	1.4	1.8	0.2	92.8			5% above the local negative control	Linear scale		
209	0.36	0.32	0.35	2.56	0.35	86.3			0.52 (1.5x local neg)	Mean log channel	No	
218	1	0.9	1	7.2	225	636			Ratio = 2.83	Ratio Geomean log channel	Yes	95
220	185	136	89.5	338	109	2270			109x1.2=130.8	Geometric MFI	No	
222	141	135	134	207.5	126		529	305	40 linear channel shift	Median linear channels	No	95
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
235	4.78	2.81	2.53	6.57	2.89	214.8			±2SD	Median log channel	No	85
238	722	762	707	995	650	2379			MESF sample/MESF neg control		No	
245	-0.2	-0.4	-0.4	-15.3	5.7	13			7 linear channel shift	Mean linear channel	Yes	100
246	3.8%	2.2%	6.2%	34.2%	10.2%	34.7%			30%		Yes	74.9
252	1	0.93	1	1.4	91.4	121.88			XM median channel/Neg median channel	Median channel ratio	No	60
262				Ratio 1.6 Lysis 18%	1393	26539			Ratio >2	Median log channel	No	85
271	NT	NT	NT	NT	NT	NT	NT	NT	Lysis >12%	NT	NT	NT
283	0.0635	0.1535	0.0935	2.9985					>2 channel shift	Channel shift	No	
284	56	43	51	95	57	583			Ratio >1.2	Median log channel	No	

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B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B07/2015 (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	FCXM NIBSC negative control used?	Viability (%)
112	2.32	0.398	0.63	1.42	0.446	13.4			Ratio >2.0	Median log channel	No	95
114	431	395	342	306	390	588			450 (negative + 60 linear channel)	Median linear channel	No	
115	417	380	498	488	375	659			>60 Median linear channel shifts	Median linear channel shifts	Yes	
116	2.25	1.37	3.63	3.21	2.55	53.4			Ratio >1.7	Median log channel	No	
117	14.38	9.32		25.44	12.54	279			Ratio (RMF) >1.5	Median log channel	Yes	
118	94	90	96	99	80	430			106 (80+26)	Median linear channel	Yes	90
119	5.58	4.39	6.96	9.75	2.06	23.4			Ratio: Pos >1.7 (B-line 1.5-1.7)	MnlX	No	
120	1.41	1.13	2.08		365	10822.5			Ratio >2	Median	No	100
122	78.5	23	114	123	29.5		440	146	3SD	Geomean linear values	No	98
126	481	398.5	480	497	345.5	828			>80 linear channel shift	Median linear channel	No	
130	340	285	400	397	297	565			>80		No	
139	2.27	2.19	3.55	2.95	3.36	18.5			≥ 2 of neg mean log channel	Mean log channel	No	
142	1238	992	1141	1057	1032.7	11852			1271.9 Median log channel 3SD	Median log channel	No	
144	1.48	1.26	1.95	2	1	5.75			2.5	Ratio	No	
					4697					MFI	No	
145	1.69	1.06	2.12	1.82	1.44	65.9			Med log ch test/Med log ch neg >mean +2SD	Median log channel	No	98
147	204	157	227	249	187	633			>40 linear channel shift	Median linear channel	No	100
154	314	194	900	504	234	1.026			Median > 250% control and shape of the curve	MFI	No	NT
157	151	130	163	183	144	502			179 (Neg+35) 2SD	Median linear channel	No	92
159	379	302	420	425	287	651			347 (60 mean linear channel shift)	Mean linear channel	No	
160	37.7	30.7	58.9	91.3	38.3	291			>68.4 (Neg+2SD)	Mean linear channel	No	
163	1.3	1	1.7	2	1	1.6			1.7	Geomean log channel	Yes	100
167	1575	1373	2420	2506	1420	55045			2SD	Median log channel	No	92
169	MLC 121.96 NR 46	84.87 32	110.53 42	142.02 54	261.5	1652.78 632			Positive = NR>200	Mean log channel	No	85
174									NT	NT		
176	SI 0.06	-0.05	0.2	0.21	0	0.51			SI≥0.30	SI	No	NT
	MESF 15533	12323	20895	21524	13823	38644				MESF		
186	5.04	4.39	5.71	6.08	3.99	34.2			2 x local negative	MFI log channel	No	99
190	239.33	138.33	283.67	330.5	126.33	588			Ratio samples/Neg >2.5	Median log channel	No	91
191	23	33	32	47	0	394			MFI >35	MFI	Yes	100
193	65.26	32.23	123.54	82.53	37.94	350.93			Neg control mean x2.5	Geometric mean linear channel	No	
194	1.1	0.11	1	1.9	0.8	56			R>1	Median log	No	97
195	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
201	2.49	2.25	4.32	3.39	1.49	96.1			x-mean sample/x-mean NC ≥ 2.5	x-mean	No	92
202	7.6	5.1	2.4	7	1.1	91.5			8% above the local negative control	Linear scale		
204	3.84	1.15	5.61	4.85	2.7	88.7			5.4 (2x local neg)	Mean log channel	No	
209	-	1.1	2.9	3.2	735	2004			Ratio = 2.73	Ratio Geomean log channel	Yes	95
218	7250	7074	3237	2942	3539	5734			3539x1.7=6016.3	Geometric MFI	No	
220	208	178.5	218	219	180.13		659	394	40 linear channel shift	Median linear channels	No	95
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
235	10.25	8.32	19.63	24.58	7.6	1445.96			±4SD	Median log channel	No	85
238	1005	914	1188	1344	941	8569			MESF sample/MESF neg control		No	
245	5.2	1.2	11.2	12.7	16.3	32			15 linear channel shift	Mean linear channel	Yes	100
246	16.9%	8.8%	31.2%	50.0%	16.7%	69.7%			30%		Yes	74.9
252	1.11	0.84		1.92	1.79	104.6			XM median channel/Neg median channel	Median channel ratio	No	50
262			Ratio 1.6	1.7	2430	58589			Ratio >2	Median log channel	No	85
			Lysis 18%	12%					Lysis >12%			
271	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
283	-5.443	-39.7255	-22.5355	-23.4905					>10 channel shift	Channel shift	No	
284	97	48	139	89	109	2415			Ratio >1.2	Median log channel	No	