

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B05/2015 (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 12TH MAY 2015

HLA PHENOTYPE OF BLOOD DONOR: HLA-A1, A3; B8, B18; Cw7, -; DR1, DR3; DQ2, DQ5

Summary of Results													
T-cells					B-cells								
Total tested	46	43	45	42	39	42	42	38			Date Received	Date Tested	Comments
Positive	1	4	22	19	19	2	38	7					
Negative	45	39	23	23	20	40	4	31					
NT/Equivocal	4	7	5	8	8	5	5	9					
% Positive	2.2%	9.3%	48.9%	45.2%	48.7%	4.8%	90.5%	18.4%					
% Negative	97.8%	90.7%	51.1%	54.8%	51.3%	95.2%	9.5%	81.6%					
Consensus	Negative	Negative	Not Assessed	Not Assessed	Not Assessed	Negative	Positive	Negative					
HLA Antibody Specificity (Defined By CDC)	Cw5, DR4	Cw3	DR3	A11	Cw5, DR4	Cw3	DR3	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	Comments		
112	Negative	Negative	Negative	Equivocal	Positive	Negative	Positive	Equivocal	15-May	18-May	Serum 4 - Incoherent results between LT and LB. Insufficient cells for re-testing		
114	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Negative	13-May	14-May			
115	Negative	Positive	Positive	Positive	Positive	Negative	Positive	Negative	13-May	18-May			
116	Negative	Positive	Positive	Positive	NT	NT	NT	NT	13-May	15-May	B-cell yield was too low for testing		
117	Negative	Negative	Positive	Equivocal	Positive	Negative	Positive	Equivocal	14-May	14-May			
118	Negative	Positive	Positive	Positive	Negative	Negative	Positive	Negative	13-May	13-May			
119	Negative	Negative	Positive	Negative	Positive	Positive	Positive	Negative	12-May	13-May			
120	Negative	Negative	Negative	Negative	Equivocal	Negative	Positive	Negative	13-May	13-May			
122	Negative	Negative	Positive	Positive	Positive	Negative	Positive	Negative	13-May	14-May			
126	Negative	Negative	Negative	Negative	Equivocal	Negative	Positive	Negative	13-May	13-May			
130	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-May	15-May			
136	Negative	Negative	Negative	Negative					13-May	14-May			
138	Negative	Negative	Negative	Negative					13-May	13-May			
139	NT	NT	NT	NT	NT	NT	NT	NT			Cytometry out of use & test not yet in clinical use		
142	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Negative	13-May	15-May			
143	Negative	Negative	Negative	Negative					14-May	15-May			
144	Negative	Negative	Positive	Negative	Negative	Negative	Positive	Negative	13-May	13-May			
145	Negative	Negative	Negative	Negative	Negative	Negative	Positive	Negative	13-May	14-May			
147	Negative	Negative	Negative	Negative	Negative	Negative	Positive	Negative	13-May	13-May			
154	Negative	Negative	Weak Positive	Positive	Positive	Negative	Positive	Negative	15-May	15-May			
157	Negative	Negative	Negative	Negative	Negative	Negative	Positive	Negative	13-May	13-May			
159	Negative	Negative	Positive	Positive	Positive	Positive	Positive	Positive	13-May	13-May			
160	Negative	Negative	Negative	Negative	Negative	Negative	Positive	Negative	13-May	14-May			
163	Negative	Weak Positive	Positive	Positive	Positive	Negative	Positive	Negative	13-May	19-May	Performed on frozen cells. Strong background staining on B		
167	Negative	Equivocal	Positive	Positive	Positive	Negative	Positive	Negative	18-May	19-May			
169	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	13-May	14-May			
174	NT	NT	NT	NT	NT	NT	NT	NT	26-May		Samples held in customs		
176	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Negative	18-May	20-May			
186	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Negative	13-May	13-May	High background on B-cells		
190	Negative	Equivocal	Positive	Positive	Equivocal	Negative	Positive	Negative	13-May	13-May			
191	Positive	Negative	Negative	Negative	Negative	Negative	Negative	Negative	12-May	13-May			
193	Negative	Negative	Equivocal	Equivocal	Positive	Negative	Positive	Negative	13-May	13-May			
194	Negative	Equivocal	Positive	Positive	Positive	Negative	Positive	Weak Positive	13-May	13-May			
195	NT	NT	NT	NT	NT	NT	NT	NT			Samples not received		
201	Negative	Negative	Negative	Negative	Negative	Negative	Positive	Negative	13-May	14-May			
202	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	13-May	13-May			
204	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Negative	13-May	13-May			
209	Negative	Negative	Positive	Equivocal	Negative	Negative	Positive	Equivocal	13-May	15-May			
218	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-May	14-May			
220	Negative	Negative	Negative	Positive	Positive	Negative	Positive	Positive	13-May	13-May			
227	NT	NT	NT	NT	NT	NT	NT	NT	13-May	13-May	Technical failure		
235	Negative	Negative	Positive	Negative	Positive	Negative	Positive	Negative	13-May	13-May			
238	Negative	Negative	Negative	Negative	Positive	Negative	Positive	Negative	13-May	15-May	Low cell counts		
245	Negative	Negative	Negative	Negative	Positive	Negative	Positive	Negative	12-May	13-May			
246	Negative	Negative	Negative	Negative	Negative	Negative	Positive	Negative	13-May	13-May			
252	Negative	Negative	Negative	Negative	Negative	Negative	Positive	Negative	15-May	15-May			
262	Negative	Negative	Negative	Positive	Positive	Negative	Positive	Positive	13-May	13-May			
271	Negative	Negative	Negative	Negative	Positive	Negative	Positive	NT	19-May	19-May			
283	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	13-May	13-May			
284	Negative	Negative	Negative	Negative	Negative	Negative	Positive	Negative	13-May	13-May			

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T-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B05/2015 (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	0.364	0.46	0.409		0.348	0.592			Ratio >1.5	Median log channel	No	95
114	206	216	247	259	198	324			238 (198+40 linear channel)	Linear channel	No	85
115	228	289	257	315	218	325			>40 Median linear channel shifts	Median linear channel	Yes	
116	0.15	0.32	0.67	0.63	0.16	47.55			Ratio >1.7	Median log channel	No	
117	2.87	3.67	4.61		2.97	67.1			Ratio >1.3	Median log channel	Yes	
118	152	167	206	203	142	857			164 (142+22)	Median linear channel	Yes	
119	0.174	0.228	0.454	0.314	0.173	8.5			Ratio >1.285 (B-line -1.48)	MnIX		95
120	1.05	1.14	1.38	1.42	95.5	4247			Ratio >1.6	Median	No	90
122	8	10	14.5	13	8		31	13	3SD	Geomean linear values	Yes	
126	210	235	255	266	222	600			>55 shifts	Median linear channel	No	
130	143	173	193	197	42	313			>40		No	
136	1.6	1.5	3.4	3.9	2.17	29 (NR=1338)			NR >200	Mean channel	No	99
138	0.05	0.03	0.05	0.08	0	0.96			>0.20		No	
139	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
142	200	203	285	279	210.67	7708			255.10 Median log channel 3SD	Median log channel	No	95
143	-38	9	-32	15	14	172			>40	Geomean linear channel	No	90
144	MFI				1709	4059						
	Ratio 1.15	1.26	1.82	1.54	1	2.38			1.7	MFI	No	
145	0.158	0.207	0.261	0.214	0.152	44.4			Med log ch test/Med log ch neg >mean +2SD	Median log channel	No	95
147	112	117	123	122	107	384			>40 linear channel shift	Median linear channel	No	100
154	62	84	124	134	63	915			Median > 150% control and shape of the curve	MFI	No	
157	83	91	97	99	84	285			99 (Neg+2SD)	Median linear channel	No	93
159	154	178	211	221	150	329			190 (40 mean linear channel shift)	Mean linear channel	No	99
160	5.6	7.3	11.3	9.9	5.9	172			>11.3 (Neg+2SD)	Mean linear channel	No	
163	1.1	2.8	6	5.2	1	6.6			2.3	Geomean log channel	Yes	96
167	210	288	391	343	164	1772			2SD	Median log channel	No	84
169	MLC 14.60	23.93	34.59	71.24	65.2	540.18						
	NR 22	37	53	109		828			Positive = NR>180	Mean log channel	No	85
174	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
176	SI 0.08	0.32	0.67	0.58	0	1.11			SI≥0.50			
	MESF 1.413	2.097	3.585	3.454	1.184	7.536					No	
186	0.46	0.66	1.2	1.29	0.422	24.7			1.5 x local negative	MFI	No	95
190	38.03	45.4	76.63	69	33.63	61.7			Ratio samples/Neg >1.5	Median log channel	No	94
191	15.3	-0.95	-3.66	6.24	0	74			MFI >15	MFI	Yes	100
193	2.04	2.85	5.98	6.43	1.9	139.96			Neg control mean x2.5	Geometric mean linear channel	No	
194	0.3	0.9	2	2.6	0.2	24			R>1	Median	No	100
195	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
201	0.2	0.26	0.38	0.35	0.19	23.2			x-mean sample/x-mean NC ≥ 2	x-mean	No	95
202	0.9	1.3	0.5	0.7	0.4	86			5% above the local negative control	Linear scale		
204	0.33	0.3	0.67	0.6	0.33	34.5			0.49 (1.5x local neg)	Mean log channel	No	95
209			2.3		213	512			Ratio = 2.40	Geomean log channel	Yes	94
218	51.5	72.2	193	208	69.4	742			69.4x1.2=83.28	Geometric MFI	No	
220	128.5	146.5	138	169	115.5		550	351	40 linear channel shift	Median linear channels	No	96
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
235	2.76	3.05	5.7	2.07	2.57	53.28			±2SD	Median log channel	No	85
238	920	692	832	821	769	4425			MESF sample/MESF neg control		No	
245	0.8	1.3	3.3	-3.2	5.7	11.5			7 linear channel shift	Mean linear channel	Yes	100
246	1.5%	2.6%	16.2%	6.8%	1.4%	51.0%			30%		Yes	92
252	0.73	0.73	0.8	0.73	124.09	116.52			XM median channel/Neg median channel	Median channel ratio	No	60
262				Ratio 1.8					Ratio >2			
				Lysis 27%	852	25720			Lysis >12%	Median log channel	No	100
271	166	191	211		163	320			67 Log channel shift	Median log channel	No	72
283	0.181	0.676	0.466	0.5835	1.454	70.886			>2 channel shift	Channel shift	No	
284	58	55	69	62	59	744			Ratio >1.285 (B-line -1.48)	Median log channel	No	

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B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B05/2015 (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	1.82	0.665	2.49		0.54	8.25			Ratio >1.5	Median log channel	No	95
114	366	352	424	365	350	541			411 (350+60 linear channel)	Linear channel	No	
115	432	348	544	372	322	423			>60 Median linear channel shifts	Median linear channel	Yes	
116	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
117	17.48	11.07	58.35		10.85	174			Ratio >1.5	Median log channel	Yes	
118	162	141	191	154	140	560			166 (140+26)	Median linear channel	Yes	
119	5.5	5.82	11.6	2.4	1.19	12			Ratio >1.7 (B-line 1.5-1.7)	MnIX		95
120	1.97	1.16	3.6	1.17	465	6161.5			Ratio >2	Median	No	90
122	55.5	33	152.5	41	23.5		161	54	3SD	Geomean linear values	Yes	
126	363	285	168	313	283	749			>80 shifts	Median linear channel	No	
130	310	270	460	318	295	494			>80		No	
139	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
142	1463	920	1745	1137	1299.67				1681.87 Median log channel 3SD	Median log channel	No	
144	MFI				4694	13950						
	Ratio 1.66	1.2	3.43	1.46	1	2.97			2.5	MFI	No	
145	0.928	0.81	1.21	0.775	0.895	63.6			Med log ch test/Med log ch neg >mean +2SD	Median log channel	No	97
147	216	193	279	178	206	489			>40 linear channel shift	Median linear channel	No	100
154	529	305	1710	403	244	7676			Median > 200% control and shape of the curve	MFI	No	
157	147	138	208	148	159	399			194 (Neg+2SD)	Median linear channel	No	93
159	381	331	480	367	236	616			296 (40 mean linear channel shift)	Mean linear channel	No	99
160	59	36	128	80	39	447			>81 (Neg+2SD)	Mean linear channel	No	
163	1.7	1.1	2.5	1	1	1.3			1.7	Geomean log channel	Yes	96
167	2091	1332	4854	1350	952	30279			2SD	Median log channel	No	
169	MLC 12.42	15.71	14.76	14.59	13.4	298.26						
	NR 93	117	110	109		2226			Positive = NR>200	Mean log channel	No	85
174	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
176	SI 0.17	0.06	0.39	0.13	0	0.3			SI≥0.30			
	MESF 27.877	20.909	42.261	25.258	17.901	35.777					No	
186	8.14	5.63	11	5.64	5.12	46.6			2 x local negative	MFI	No	95
190	337	203.3	641.7	220.3	167.7	733			Ratio samples/Neg >2.5	Median log channel	No	94
191	7.7	-8.24	7.8	7.2	0	327			MFI >15	MFI	Yes	100
193	91.87	33.28	236.07	46.28	26.18	195.67			Neg control mean x2.5	Geometric mean linear channel	No	
194	1.4	0.2	4.6	1.2	0.8	150			R>1	Median	No	100
195	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
201	1.41	0.77	4.36	0.97	0.68	41.6			x-mean sample/x-mean NC ≥ 2.5	x-mean	No	95
202	3.8	6.9	6.2	3.2	3	98.8			8% above the local negative control	Linear scale		
204	7.02	4.32	13.3	3.84	3.96	70.2			7.92 (2x local neg)	Mean log channel	No	95
209	3.2		6.8		682	1656			Ratio = 2.43	Geomean log channel	Yes	94
218	4442	2321	8119	7470	4387	2759			4387x1.87=7459.9	Geometric MFI	No	
220	246	235.75	281.5	255.25	199			425	40 linear channel shift	Median linear channels	No	96
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
235	40.86	20.91	319.08	25.03	20.91	1640			±4SD	Median log channel	No	85
238	3824	1375	4899	1622	1773	29628			MESF sample/MESF neg control		No	
245	16.3	1.8	29.3	-4.2	21.7	38.5			15 linear channel shift	Mean linear channel	Yes	100
246	22.6%	11.9%	93.0%	29.7%	11.0%	95.1%			30%		Yes	92
252	1.55	0.89	3.81	1	82.79	96.47			XM median channel/Neg median channel	Median channel ratio	No	60
262	Ratio 2.7		5.2	2.1					Ratio >2			
	Lysis 42%		88%	25%	1351	63945			Lysis >12%	Median log channel	No	100
271	376	268	463		211	527			106 Log channel shift	Median log channel	No	72
283	-0.486	-13.006	-13.681	15.407	115.946	451.474			>10 channel shift	Channel shift	No	
284	101	68	193	82	85	2423			Ratio >1.2	Median log channel	No	