

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B06/2016 (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 17TH MAY 2016

HLA PHENOTYPE OF BLOOD DONOR: HLA-A3, A11; B7, B38; Cw7, Cw12; DR11, DR16; DQ5, DQ7

Summary of Results												
T-cells					B-cells							
Total tested	46	47	49	48	42	39	44	43				
Positive	7	23	1	2	25	18	1	41				
Negative	39	24	48	46	17	21	43	2				
NT/Equivocal	6	5	3	4	7	10	5	6				
% Positive	15.2%	48.9%	2.0%	4.2%	59.5%	46.2%	2.3%	95.3%				
% Negative	84.8%	51.1%	98.0%	95.8%	40.5%	53.8%	97.7%	4.7%				
Consensus	Negative	Not Assessed	Negative	Negative	Not Assessed	Not Assessed	Negative	Positive				
HLA Antibody Specificity (Defined By CDC)	B15	A1	B12	B12	B15	A1	B12	B12				
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	
101	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Negative	18-May	19-May	Low cell viability	
112	NT	NT	NT	NT	NT	NT	NT	NT	20-May	23-May		
114	Positive	Positive	Negative	Negative	Positive	Positive	Negative	Positive	18-May	19-May		
115	Negative	Positive	Negative	Negative	Positive	Positive	Negative	Positive	18-May	19-May		
116	Negative	Positive	Negative	Negative	Positive	Positive	Negative	Positive	19-May	19-May		
117	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	19-May	19-May		
118	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	18-May	18-May		
119	Negative	Negative	Negative	Negative	Equivocal	Positive	Negative	Positive	18-May	19-May		
120	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	18-May	19-May		
122	Negative	Positive	Negative	Negative	Positive	Negative	Negative	Positive	18-May	19-May		
126	Negative	Positive	Negative	Negative	Negative	Negative	Negative	Positive	18-May	19-May		
130	Negative	Positive	Negative	Negative	Negative	Positive	Negative	Positive	18-May	19-May		
133	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	20-May	20-May		
136	Positive	Positive	Negative	Negative					17-May	18-May		
138	Negative	Negative	Negative	Negative					19-May	19-May		
139	NT	NT	NT	NT	NT	NT	NT	NT	20-May		Cytometer failure	
142	Positive	Equivocal	Negative	Negative	Positive	Positive	Negative	Positive	19-May	20-May		
143	Negative	Positive	Negative	Negative					19-May	19-May		
144	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	18-May	19-May		
145	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	18-May	19-May		
147	Negative	Negative	Negative	Negative	Positive	Positive	Negative	Positive	18-May	18-May		
154	Negative	Positive	Negative	Negative	Positive	Positive	Negative	Positive	19-May	19-May		
157	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	18-May	18-May		
159	Positive	Positive	Negative	Negative	Positive	Positive	Negative	Positive	19-May	20-May		
160	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	18-May	19-May		
163	Positive	Positive	Negative	Negative	Equivocal	Equivocal	Equivocal	Equivocal	20-May	20-May		Duplicates on B-cells are not good
167	Negative	Positive	Negative	Negative	Negative	Negative	Negative	Positive	18-May	20-May		
169	Positive	Negative	Negative	Negative	Positive	Negative	Negative	Positive	18-May	19-May		
176	Negative	Positive	Negative	Negative	Positive	Positive	Negative	Positive	18-May	20-May		
186	Negative	Positive	Negative	Negative	Negative	Negative	Negative	Positive	18-May	18-May		
190	Negative	Positive	Negative	Negative	Negative	Equivocal	Negative	Positive	18-May	19-May		
191	Negative	Negative	Negative	Positive	Negative	Positive	Negative	Positive	18-May	18-May		
193	Equivocal	Positive	Negative	Negative	Negative	Equivocal	Negative	Positive	18-May	18-May		
194	Equivocal	Positive	Negative	Negative	Positive	Positive	Equivocal	Positive	18-May	19-May		
195	Negative	Negative	Negative	Negative	Positive	Equivocal	Negative	Positive	20-May	20-May		
201	Negative	Negative	Negative	NT	Positive	Negative	Negative	NT	18-May	19-May	Serum 4 not tested due to our contamination	
202	Negative	Negative	Negative	Negative	Equivocal	Equivocal	Negative	Equivocal	18-May	18-May		
204	Equivocal	Positive	Negative	Negative	Positive	Positive	Negative	Positive	18-May	18-May		
209	Negative	Positive	Negative	Negative	Negative	Equivocal	Negative	Positive	18-May	20-May		
218	Negative	Negative	Positive	Positive	Positive	Negative	Positive	Positive	20-May	20-May		
220	Negative	Positive	Negative	Negative	Negative	Negative	Negative	Positive	18-May	19-May		
227	NT	NT	NT	NT	NT	NT	NT	NT	18-May		Technical failure	
235	Negative	Positive	Negative	Negative	Negative	Positive	Negative	Positive	18-May	18-May		
238	Negative	Negative	Negative	Negative	Positive	Positive	Negative	Positive	18-May	19-May		
245	Negative	Equivocal	Negative	Negative	Negative	Equivocal	Negative	Positive	19-May	19-May		
246	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	18-May	18-May		
252	Positive	Negative	Negative	Negative	Positive	Negative	Negative	Positive	20-May	20-May		
262	Negative	Negative	Negative	Negative	Equivocal	Positive	Negative	Positive	18-May	18-May		
271	Negative	Positive	Negative	Negative	Negative	Positive	Negative	Positive	19-May	19-May		
284	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	18-May	18-May		
297	Negative	Positive	Negative	Negative	Positive	Negative	Negative	Negative	18-May	19-May		
341	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	18-May	19-May		

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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	Viability (%)
101										MFI	
112	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	35
114	272	316	193	215	211	373			261 (50 linear channel shift)	Median linear channel	89
115	304	366	260	279	278	424			>40	Median linear channel shifts	
116	0.29	0.48	0.21	0.32	0.2	32.55			ratio >1.7	Median log channel	
117	4.86	5.27	4.27	4.91	4.81	69.49			ratio >1.3	Median log channel	85
118	149	196	128	130	97	743			163 (97+66)	Median linear channel	90
119	0.251	0.481	0.187	0.329	0.185	6.34			ratio >1.285 (B-line 1.285-1.45)	MnIX	98
120	0.93	1.38	0.97	1.04	80.5	3752.5			ratio >1.6	Median	100
122	11	16.5	10	12	10		204	57	3SD	Geomean linear values	98
126	168	279	150	171	151	732			>80 linear channel shift	Median	90
130	170	257	162	161	148	345			>40	Mean channel shift	99
133	15	30	43	45	32	414			>x1.5 of NC	Median	95
136	3.8	4.4	1.8	2.2	1.7	63 NR = 3705			NR >200	Mean channel	98
138	0.06	0.07	0.03	0.05	0	0.88			>0.20	D value kolmogorov-smirnov statistic	
139	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
142	725	315	166	300	237	8343			304 (237+3SD)	Median log channel	88
143	1	58	-3	0	20	134			40 linear channel shift	Geomean channel shift	90
144	1.51	1.64	1.11	1.28	1554	6.46			1.7	Median/ratio	
145	0.988	1.33	0.782	1.24	0.641	46			2SD of the ratio	Median log channel	90
147	191	213	183	183.5	177.5	467			>40 linear channel shift	Linear channel	100
154	83	149	54	77	55	1291			Median >150% control and shape of the curve	MFI	
157	114	127	116	111	107	428			122 (2SD)	Median linear channel	93
159	257	285	192	211	196	439			40 linear channel shift	MLC	100
160	10.3	12.9	8.4	10.4	7.5	317			>16.6 (Neg+2SD)	Mean linear	
163	4.6	7.2	0.9	1.3	1	10.1			2.3 (ratio above)	Geomean linear channel	92
167	252	301	199	223	227	26214			2SD	Median log channel	97
169	53.62	6.57	3.52	3.64	21.73	213.02					
	NR 246	30	16	17		980			NR >180	Mean log channel	97
176	0.22	0.69	0.04	0.11	0	1.08			0.5	MFI shift	
186	0.85	1.44	0.55	0.7	0.542	42			1.5x the local NC	MFI log channel	99
190	94.2	159	85.9	89.1	87.4	249			ratio sample/neg >1.5	Median log channel	69
191	55	16.5	13.5	35	0	56			>30	MFI	100
193	10.8	15.08	3.86	5.43	3.61	364.78			NC mean x2.5	Geometric mean linear channel	
194	0.7	2.0	0.1	1	<0.7	20			>0.7 (median log)	x-median	99
195	241	263	222	242	228	2849			test/NC >1.25	Median log channel	70
201	0.47	0.689	0.402	NT	0.411	35.7			ratio (s/nc) ≥2	x-mean	96
202	2.3	0.8	1.2	3.9	0.4	97.4			5% above the local NC	linear scale	
204	0.69	1.25	0.40	0.44	0.40	83.3			0.61 = 1.5x local NC	Mean log channel	
209	1.3	2.7	1.0	1.2	323	1125 (3.5)			1.6	Geometric mean log channel (ratio)	90
218	70.5	72.7	75.9	73.8	61	449			61 x1.2 = 73.2	Geometric MFI	100
220	5662	16569	4664.5	6035.5	5758.67	262143			6000 above the mean of the NC	Linear acquisition, linear values	96
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
235	1.84	10.37	2.92	2.59	2.48	216.76			>2 of Neg median log channel	Median log channel	85
238	1608	2168	1573	1833	1499	85419			MESF serum/MESF NC	MESF	
245	0	6	0	0.2	3.3	8.7			7 linear channel shift	Linear channel shift	100
246	1.1	1.2	1.1	1.5		9.8			1.75 Median log fluorescence ratio	MLF	94
252	1.37	1.046	0.82	1.009	74.32	122.98			Median ratio ±2SD	Median channel ratio	70
262					1113	22031			ratio sample/neg >2, lysis >12%	Median channel log	60
271	163	269	122	150	130	440			64	Median log channel	96
284	611	608	560	545	563		2001	660	Sample serum/NC : ratio >1.2	Median log channel	
297	44	118	32	38	46	3942			1.5x MFI NC	Median MFI	
341	4.52	5.52	4.28	4.46	4.58	20.92			3SD	Geomean linear values	97

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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	Viability (%)
101										MFI	
112	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	35
114	744	468	399	612	401	562			661 (60 linear channel shift)	Median linear channel	89
115	695	516	400	649	406	740			>60	Median linear channel shifts	
116	19.4	0.91	0.62	6.94	0.38	47.05			ratio >1.7	Median log channel	
117	8.97	8.95	6.52	16.43	7.91	169.39			ratio >1.5	Median log channel	85
118	108.5	115.25	129.25	193	117.5	423.25			143 (117.5+25.5)	Median linear channel	90
119	11.5	4.72	2.53	18.9	1.3	27.5			ratio >1.7 (B-line 1.5-1.7)	MnIX	98
120	0.91	1.74	1.15	6.91	181.5	4182.5			ratio >2	Median	100
122	160.5	38	29	243	21		400	105	3SD	Geomean linear values	98
126	410	501	470	600	345	801			>160 linear channel shift	Median	90
130	240	332	250	509	212	545			>80	Mean channel shift	99
133	75	34	35	96	14	913			>x2 of NC	Median	95
139	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
142	1471	1424	778	2263	744	12020			1142 (744+3SD)	Median log channel	88
144	9.27	2.26	1.34	6.74	2494	8.6			2.5	Median/ratio	
145	11.8	2.78	1.24	8.95	2.18	52.6			2SD of the ratio	Median log channel	90
147	481	269.5	233.5	453	196.5	641			>60 linear channel shift	Linear channel	100
154	6230	526	239	2211	153	7272			Median >200% control and shape of the curve	MFI	
157	135	123	119	293	252	575			287 (2SD)	Median linear channel	93
159	655	415	314	573	280	615			100 linear channel shift	MLC	100
160	233	112	84	410	54	554			>115 (Neg+2SD)	Mean linear	
163	1.4	2.3	1.1	5.8	1	3.4			1.7 (ratio above)	Geomean linear channel	92
167	731	854	620	2721	732	55540			2SD	Median log channel	97
169	41.57	24.73	18.57	72.47	17.08	103.39					
	NR 243	145	109	424		605			NR >200	Mean log channel	97
176	0.43	0.30	-0.17	0.86	0	0.83			0.23	MFI shift	
186	2.03	2.69	1.75	5.64	1.43	57			2x the local NC	MFI log channel	99
190	122.8	297	159.3	760	153	739			ratio sample/neg >2.5	Median log channel	69
191	12	211	99	216	0	294			>100	MFI	100
193	39.51	60.92	27.03	259.24	28.71	483.44			NC mean x2.5	Geometric mean linear channel	
194	20	4	1	10	<1	58			>1 (median log)	x-median	99
195	985	278	195	916	205	6747			test/NC >1.35	Median log channel	70
201	5.39	2.51	1.72	NT	1.65	72.4			ratio (s/nc) ≥2.5	x-mean	96
202	11	10.3	6.8	22.6	0.9	96.5			8% above the local NC	linear scale	
204	24.3	3.45	1.56	15.2	1.21	109			2.41 = 2x local NC	Mean log channel	
209	1.45		1.3	4.7	1413	2908.00			1.9	Geometric mean log channel (ratio)	90
218	11135	1044	2125	1658	661	1126			661 x1.7 = 1123.7	Geometric MFI	100
220	4705.5	13413	5050	34322.5	4790.33	262143			6000 above the mean of the NC	Linear acquisition, linear values	96
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
235	23.5	32.27	9.82	41.05	10.05	1928.22			>18 of Neg median log channel	Median log channel	85
238	35815	6508	5531	20213	2821	107115			MESF serum/MESF NC	MESF	
245	0	9.3	0.8	33.8	4.7	9.8			15 linear channel shift	Linear channel shift	100
246	1.3	1.5	1.1	6.7		20.9			2.5 Median log fluorescence ratio	MLF	94
252	54.246	2.016	1.154	7.843	31.34	107.46			Median ratio ±2SD	Median channel ratio	70
262		2848		8734	1296	44994			ratio sample/neg >2, lysis >12%	Median channel log	60
271	155	312	152	484	137	513			90	Median log channel	98
284	1112	574	545	992	519		5806	666	Sample serum/NC : ratio >1.2	Median log channel	
297	845	222	56	382	309	19287			1.5x MFI NC	Median MFI	
341	30.79	10.55	7.69	48.75	8.42	146.33			3SD	Geomean linear values	97