

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B08/2016 (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 12TH JULY 2016

HLA PHENOTYPE OF BLOOD DONOR: HLA-A2, -, B57, B44; Cw5, Cw6; DR4, DR7; DQ7; DQ9

Summary of Results											
T-cells					B-cells						
Total tested	49	50	50	51	44	43	46	48			
Positive	11	2	48	49	11	2	44	47			
Negative	38	48	2	2	33	41	2	1			
NT/Equivocal	4	3	3	2	6	7	4	2			
% Positive	22.4%	4.0%	96.0%	96.1%	25.0%	4.7%	95.7%	97.9%			
% Negative	77.6%	96.0%	4.0%	3.9%	75.0%	95.3%	4.3%	2.1%			
Consensus	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive			
HLA Antibody Specificity (Defined By CDC)	B7,B27,B42,Cw1	A1	B12	Cw5, DR4	B7,B27,B42,Cw1	A1	B12	Cw5, DR4			
Summary of Results											
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	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	15-Jul	
112	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	15-Jul	15-Jul	
114	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	14-Jul	
115	Positive	Negative	Positive	Positive	Positive	Negative	Positive	Positive	13-Jul	14-Jul	
116	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	14-Jul	
117	Negative	Negative	Positive	Positive	Negative	Equivocal	Positive	Positive	14-Jul	14-Jul	
118	NT	NT	NT	NT	NT	NT	NT	NT	14-Jul	14-Jul	Delivery delay
119	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	11-Jul	12-Jul	
120	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	13-Jul	
122	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	14-Jul	
126	Positive	Negative	Positive	Positive	Positive	Positive	Positive	Positive	13-Jul	14-Jul	
130	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	14-Jul	
133	Negative	Negative	Negative	Negative	Negative	Negative	Equivocal	Positive	14-Jul	15-Jul	
136	Negative	Negative	Positive	Positive					14-Jul	15-Jul	
138	Negative	Negative	Positive	Positive					14-Jul	14-Jul	
139	Negative	Negative	Positive	Positive	Negative	Negative	Negative	Positive	15-Jul	15-Jul	
142	Negative	Positive	Negative	Positive	Negative	Equivocal	Positive	Positive	13-Jul	14-Jul	
143	Negative	Negative	Positive	Positive					15-Jul	16-Jul	
144	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	14-Jul	
145	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	14-Jul	
147	Positive	Negative	Positive	Positive	Positive	Negative	Positive	Positive	13-Jul	15-Jul	
154	Negative	Negative	Positive	Positive	Negative	Equivocal	Positive	Positive	12-Jul	18-Jul	
157	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	14-Jul	
159	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	15-Jul	
160	Negative	Negative	Positive	Positive	Negative	Positive	Positive	Positive	13-Jul	14-Jul	
163	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	13-Jul	
167	Equivocal	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	14-Jul	
169	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	14-Jul	
176	Positive	Negative	Positive	Positive	Positive	Negative	Positive	Positive	13-Jul	14-Jul	
186	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	13-Jul	
190	Positive	Equivocal	Positive	Positive	Positive	Equivocal	Positive	Positive	13-Jul	13-Jul	
191	Negative	Negative	Positive	Positive	Positive	Negative	Positive	Positive	15-Jul	18-Jul	
193	Positive	Negative	Positive	Positive	Positive	Negative	Positive	Positive	13-Jul	13-Jul	
194	Negative	Negative	Positive	Positive	Equivocal	Equivocal	Positive	Positive	13-Jul	13-Jul	
195	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	15-Jul	15-Jul	
201	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	14-Jul	
202	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	13-Jul	
204	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	13-Jul	
209	Positive	Negative	Positive	Positive	Positive	Negative	Positive	Positive	13-Jul	15-Jul	
218	Negative	Positive	Positive	Positive	Negative	Negative	Negative	Negative	15-Jul	21-Jul	
220	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	14-Jul	15-Jul	
227	NT	NT	NT	NT	NT	NT	NT	NT			No results returned
235	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	13-Jul	
238	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	15-Jul	
245	Positive	Negative	Positive	Positive	Equivocal	Negative	Positive	Positive	13-Jul	13-Jul	
246	Positive	Negative	Positive	Positive	Positive	Negative	Positive	Positive	14-Jul	15-Jul	
252	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	15-Jul	
262	Negative	Negative	Positive	Positive	Equivocal	Negative	Positive	Positive	13-Jul	13-Jul	
271	Positive	Negative	Positive	Positive	Positive	Negative	Positive	Positive	17-Jul	17-Jul	
284	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	13-Jul	
297	Positive	Negative	Positive	Positive	Positive	Negative	Positive	Positive	13-Jul	13-Jul	
341	Negative	Negative	Positive	Positive	Negative	Negative	Positive	Positive	13-Jul	14-Jul	
351	NT	Negative	NT	Negative	NT	Negative	NT	Positive	17-Jul	18-Jul	

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T-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B08/2016 (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	Viability (%)
101	0.207	0.203	1.3	1.2	0.248	3.1				MFI	25
112	0.456	0.456	1.9	2.22	0.425	3.95			Ratio >1.5	Median log channel	95
114	188	189	547	460	206	374			256 (50 linear channel)	Median linear channel	
115	389	229	464	461	255	327			>40	Median linear channel shifts	
116	0.19	0.21	4.34	3.44	0.18	24.6			Ratio >1.7	Median log channel	
117	4.19	4.46	24.59	32.41	4.06	49.69			Ratio >1.3	Median log channel	
118	NT	NT	NT	NT	NT	NT	NT	NT	NT	Median linear channel	NT
119	0.98	0.21	3.41	2.49	0.212	3.45			Ratio: Pos >1.289 (B-line 1.289-1.45)	MnIX	98
120	1.03	1.02	5.76	3.95	75	6403			Ratio >1.6	Median	100
122	13	11	175.5	166.5	12		83	27	3SD	Geomean linear values	98
126	384	232	514	482	188	734			>80 channel shift	Median linear channel	90
130	176	140	353	386	149	250			>40	Mean channel shift	100
133	51	52	74	70	51	1408			>x1.5 of NC	Median	96
136	1.7	1.6	24	18	1.63	29 NR=1776			NR >200	Mean channel	98
138	0.03	0.04	0.56	0.31	0	0.92			>0.2	D value kolmogorov-smirnov statistic	
139	0.99	1.23	5.17	4.72	2.33	2.66			>1.5 of neg mean log channel	Mean log channel	80
142	180	562	183	516	165	7103			198 (165+3SD)	Median log channel	94
143	11	10	124	113	15	41			>40 linear channel shift	Geomean channel shift	82
144	1.4	1.3	6.1	5.8	1252	8.88			1.7	Ratio	
145	0.254	0.327	0.97	0.97	0.254	2.24			2SD of the ratio	Median log channel	92
147	274	131	362	376	118	616			>40 linear channel shift	Linear channel	100
154	54	59	706	584	57	1375			Median >150% control x shape of the curve	MFI	
157	117	110	149	188	112	467			134 (2SD)	Median linear channel	96
159	175	169	415	396	169	440			209 MLC (40 linear channel shift)	Mean linear channel	
160	11.9	10.8	122.4	95.2	10.2	160			>20.1 (Neg+2SD)	Mean linear	
163	1.1	1.1	42.1	24.2	1	15.6			2.3 (ratio above)	Geomean linear channel	97
167	323	223	1519	1523	228	5897			2SD		94
169	259	253	430	413	267	582			≥50 channel	Median channel	98
176	0.62	-0.02	1.22	1.13	0	1.38			0.5	MFI Shift	100
186	0.39	0.47	6.41	5.78	0.41	56.3			1.5x the local NC	Mean fluorescence intensity - log channel	99
190	141	84.3	562	422	67.9	442			Ratio sample/Neg >1.5	Median log channel	95
191	19	-6	128	199	0	375			>30	MFI	95
193	29.74	6.93	95.88	77.34	7.26	188			NC mean x2.4	Geometric mean linear channel	
194			8.1	7.5	0.531	17.6			Ratio sample/Neg >1.2	Median log channel	100
195	153	130	396	338	125	1479			Test/NC ≥1.3	Median log channel	95
201	0.473	0.45	2.44	1.95	0.432	11.2			S/NK ≥2	x-mean	95
202	0.5	0.8	23.8	14.7	0.1	99.8			5% above the local neg control	Linear scale	
204	0.34	0.35	6.41	5.61	0.34	9.44			0.51=1.5x loc neg control	Mean log channel	
209	3.6	0.9	9.9	6.5	246	833 (3.4)			1.6	Geometric mean log channel (ratio)	
218	125	185	312	180	124	713			124x1.2=148.8	Geometric mean fluorescence intensity	20
220	5424	3550.5	45935	33088.5	3149.25	200584			6000 above the mean of the NC	Linear acquisition, Linear values	97
227											
235	3.08	2.62	10.65	9.73	2.23	42.94			>2 of Neg median log channel	Median log channel	85
238	1307	853	2488	2046	1038	16326			MESF serum/MESF neg control	MESF	
245	7.5	1	31	19.5	2	10.5			7 linear channel shift	Linear channel shift	100
246	2.5	0.9	9.5	4.9	2.5	2.5			1.75 med log fl ratio	Median log fl	97
252	1.095	1.085	2.289	1.965	45.68	289.03			Median ratio +2SD		75
262	Ratio		3.3	2.1	1159	11066			Ratio sample/neg >2		
	Lysis		56%	52%					Lysis >12%	Median channel log	96
271	340	144	451	429	129	369			64	Median log channel	96
284	178	192	356	385	180		1268	229	Sample serum/NC >1.2	Median log channel	
297	211	48	966	641	46.5	2457			1.5x Tneg	Median MFI	
341	3.81	3.79	12.55	13.19	3.92	30.59			3SD	Geomean linear values	97
351		543		714	581	4295			500+neg results	Fluorescence intensity	85

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B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B08/2016 (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	Viability (%)
101	2.55	2.29	7.18	7.6	6	11.8				MFI	25
112	0.357	0.477	1.92	9.79	0.347	4.36			Ratio >2	Median log channel	95
114	493	496	576	693	502	600			562 (60 linear channel)	Median linear channel	
115	513	424	559	678	424	583			>60	Median linear channel shifts	
116	2.43	2.27	7.58	14.4	2.57	35.75			Ratio >1.7	Median log channel	
117	9.06		75.75	119.58	9.6	184.14			Ratio >1.5	Median log channel	
118	NT	NT	NT	NT	NT	NT	NT	NT	NT	Median linear channel	NT
119	11.8	7.71	20.3	28.1	2.67	16.4			Ratio: Pos >1.7 (B-line 1.5-1.7)	MnIX	98
120	1.27	1.22	3.66	6.49	339.5	9951			Ratio >2	Median	100
122	166.5	254	694	1142.5	12		83	27	3SD	Geomean linear values	98
126	574	601	658	687	370	850			>160 channel shift	Median linear channel	90
130	310	290	726	724	255	716			>80	Mean channel shift	100
133	74	107	164	359	70	1685			>x2 of NC	Median	96
139	11.6	13.3	22.6	40.9	13	46.5			>2 of neg mean log channel	Mean log channel	86
142	1259	1272	2609	3699	1068	19243			1487 (1068+3SD)	Median log channel	94
144	1.7	1.9	5.8	10.6	3319	7.22			2.5	Ratio	
145	0.503	0.636	2.8	5.66	1.23	7.41			2SD of the ratio	Median log channel	92
147	383	307	444	552	281	728			>60 linear channel shift	Linear channel	100
154	223	400	1808	3720	182	4018			Median >200% control x shape of the curve	MFI	
157	138	128	387	376	293	567			352 (2SD)	Median linear channel	96
159	307	344	525	603	304	601			404 MLC (100 linear channel shift)	Mean linear channel	
160	109	175	685	1067	52.1	434			>133 (Neg+2SD)	Mean linear	
163	1	0.9	2.7	4.8	1	1.9			1.7 (ratio above)	Geomean linear channel	97
167	1290	919	3426	5815	948	33368			2SD		94
169	382	410	571	650	332	679			≥80 channel	Median channel	98
176	0.23	0.04	0.71	1.05	0	0.78			0.23	MFI Shift	100
186	2.04	1.98	5.9	10.7	2.02	43.3			2x the local NC	Mean fluorescence intensity - log channel	99
190	481.7	308	704.7	761.7	139	702			Ratio sample/Neg >2.5	Median log channel	95
191	138	35	168	269	0	343			>100	MFI	95
193	124.24	67.78	282.68	640.17	52.38	425.98			NC mean x1.9	Geometric mean linear channel	
194			8.1	7.5	3.45	114			Ratio sample/Neg >4	Median log channel	100
195	207	199	747	1405	202	6504			Test/NC ≥1.6	Median log channel	95
201	4.91	3.2	10.7	14.9	2.18	41.7			S/NK ≥2.5	x-mean	95
202	2.1	5.8	29.4	19.3	1.2	99.5			8% above the local neg control	Linear scale	
204	3.45	3.71	15.2	24.3	3.45	40.2			6.9=2x loc neg control	Mean log channel	
209	2.1	1	3.9	6.5	1503	4000 (2.7)			1.9	Geometric mean log channel (ratio)	
218	739	1539	1570	752	1015	1798			1015x1.7=1725.5	Geometric mean fluorescence intensity	20
220	3886.5	5033.5	55681	125963.5	3006.75	262143			6000 above the mean of the NC	Linear acquisition, Linear values	97
227											
235	8.35	12.98	72.99	250.29	8.13	1669.77			>18 of Neg median log channel	Median log channel	85
238	2437	2190	4803	9813	1780	36770			MESF serum/MESF neg control	MESF	
245	13.5	6.5	42	64	19	67			15 linear channel shift	Linear channel shift	100
246	3.2	0.8	6	8.9	13				2.5 med log fl ratio	Median log fl	97
252	1.035	1.007	3.815	6.908	63.28	2360.73			Median ratio +2SD		75
262	Ratio 1.6		5.4	6.1	1810	43956			Ratio sample/neg >2		
	Lysis 12%		77%	77%					Lysis >12%	Median channel log	96
271	473	275	545	608	208	499			90	Median log channel	96
284	194	233	476	783	255		7864	294	Sample serum/NC >1.2	Median log channel	
297	900	510	2497	4699	359.5	20311			2x Tneg	Median MFI	
341	8.22	14.53	30.91	53.81	14.63	100.76			3SD	Geomean linear values	97
351	NT	611	NT	1192	561	1446			2500+neg results	Fluorescence intensity	85