

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B09/2016 (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 06TH SEPTEMBER 2016

HLA PHENOTYPE OF BLOOD DONOR: HLA-A1, A24; B8, B39; Cw7, -: DR4, -: DQ8,-

		Summary of Results									
		T-cells				B-cells					
Total tested	49	46	46	49	44	43	39	46			
Positive	2	28	21	3	34	23	14	2			
Negative	47	18	25	46	10	20	25	44			
NT/Equivocal	4	7	7	4	6	7	11	4			
% Positive	4.1%	60.9%	45.7%	6.1%	77.3%	53.5%	35.9%	4.3%			
% Negative	95.9%	39.1%	54.3%	93.9%	22.7%	46.5%	64.1%	95.7%			
Consensus	Negative	Not Assessed	Not Assessed	Negative	Positive	Not Assessed	Not Assessed	Negative			
HLA Antibody Specificity (Defined By CDC)	DR7, DQ2	B12	A1	A23	DR7, DQ2	B12	A1	A23			
		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	Positive	Positive	Negative	Negative	Negative	Negative	Negative	07-Sep	08-Sep	Low cell viability
112	NT	NT	NT	NT	NT	NT	NT	NT	13-Sep	13-Sep	
114	Negative	Positive	Positive	Negative	Positive	Negative	Negative	Negative	07-Sep	08-Sep	
115	Negative	Positive	Positive	Negative	Negative	Positive	Negative	Negative	07-Sep	08-Sep	
116	Negative	Positive	Positive	Negative	Positive	Positive	Positive	Negative	07-Sep	08-Sep	
117	NT	NT	NT	NT	NT	NT	NT	NT	08-Sep	13-Sep	
118	Negative	Positive	Negative	Negative	Negative	Positive	Negative	Negative	07-Sep	07-Sep	
119	Negative	Positive	Negative	Negative	Positive	Positive	Negative	Negative	07-Sep	08-Sep	
120	NT	NT	NT	NT	NT	NT	NT	NT	07-Sep	08-Sep	
122	Negative	Positive	Positive	Negative	Positive	Positive	Positive	Negative	07-Sep	08-Sep	
126	Negative	Positive	Negative	Negative	Positive	Positive	Positive	Negative	07-Sep	08-Sep	
130	Negative	Positive	Positive	Negative	Negative	Positive	Positive	Negative	07-Sep	08-Sep	
133	Negative	Negative	Negative	Negative	Negative	Negative	Equivocal	Negative	08-Sep	08-Sep	
136	Negative	Positive	Negative	Negative					07-Sep	08-Sep	
138	Negative	Positive	Positive	Negative					07-Sep	07-Sep	
139	Negative	Positive	Positive	Negative	Positive	Negative	Equivocal	Negative	09-Sep	07-Sep	
142	Negative	Positive	Positive	Negative	Positive	Negative	Positive	Negative	08-Sep	08-Sep	
143	Negative	Negative	Negative	Negative					08-Sep	08-Sep	
144	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Negative	07-Sep	08-Sep	
145	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Negative	13-Sep	14-Sep	
147	Negative	Equivocal	Negative	Negative	Positive	Equivocal	Negative	Negative	08-Sep	08-Sep	
154	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Negative	08-Sep	09-Sep	
157	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	07-Sep	08-Sep	
159	Negative	Equivocal	Negative	Negative	Positive	Negative	Negative	Negative	07-Sep	08-Sep	
160	Negative	Positive	Negative	Negative	Positive	Positive	Negative	Negative	07-Sep	08-Sep	
163	Negative	Positive	Negative	Negative	Positive	Positive	Positive	Negative	08-Sep	08-Sep	
167	Negative	Positive	Positive	Negative	Positive	Positive	Negative	Negative	07-Sep	08-Sep	
169	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	07-Sep	08-Sep	
176	Negative	Positive	Positive	Negative	Positive	Positive	Positive	Negative	08-Sep	09-Sep	
186	Negative	Positive	Positive	Negative	Negative	Positive	Negative	Negative	07-Sep	07-Sep	
190	Negative	Positive	Equivocal	Negative	Positive	Negative	Negative	Negative	07-Sep	08-Sep	
191	Negative	Positive	Negative	Negative	Positive	Positive	Negative	Negative	07-Sep	08-Sep	
193	Negative	Positive	Positive	Negative	Positive	Positive	Positive	Negative	07-Sep	07-Sep	
194	Negative	Equivocal	Equivocal	Negative	Positive	Equivocal	Equivocal	Negative	07-Sep	08-Sep	
195	Negative	Negative	Negative	Positive	Negative	Negative	Equivocal	Negative	09-Sep	09-Sep	
201	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Negative	07-Sep	08-Sep	
202	Negative	Negative	Negative	Negative	Equivocal	Equivocal	Negative	Negative	07-Sep	07-Sep	
204	Negative	Positive	Positive	Negative	Positive	Positive	Positive	Negative	07-Sep	07-Sep	
209	Negative	Negative	Negative	Negative	Positive	Positive	Negative	Negative	07-Sep	08-Sep	
218	Negative	Positive	Negative	Negative	Negative	Positive	Positive	Negative	13-Sep	13-Sep	
220	Negative	Positive	Positive	Negative	Positive	Positive	Positive	Negative	07-Sep	08-Sep	
227	NT	NT	NT	NT	NT	NT	NT	NT	07-Sep	07-Sep	
235	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Negative	07-Sep	07-Sep	
238	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Negative	07-Sep	08-Sep	
245	Negative	Positive	Equivocal	Negative	Positive	Positive	Equivocal	Negative	07-Sep	08-Sep	
246	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Negative	07-Sep	07-Sep	
252	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Negative	08-Sep	08-Sep	
262	Negative	Negative	Negative	Negative	Equivocal	Positive	Equivocal	Negative	07-Sep	07-Sep	
271	Negative	Positive	Positive	Negative	Positive	Positive	NT	Negative	08-Sep	08-Sep	
284	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	07-Sep	08-Sep	
297	Negative	Positive	Positive	Negative	Positive	Positive	Positive	Negative	08-Sep	09-Sep	
341	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Negative	07-Sep	08-Sep	
351	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	10-Sep	10-Sep	

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T-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B09/2016 (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										MFI sample/MFI neg control	
112	NT	NT	NT	NT	NT	NT	NT	NT	NT	Median log channel	5
114	193	289	271	168	202	325			252 (50 linear channel)	Median linear channel	89
115	181	344	303	201	245	297			>40 linear channel shift	Median linear channel shifts	
116	0.16	0.91	0.82	0.17	0.18	28.4			ratio > 1.7	Median log channel	
117	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
118	155	209	192	158	126	762			192 (126+66)	Median linear channel	80
119	0.188	0.682	0.5	0.182	0.177	3.5			Ratio >1.285 B-line (1.285-1.48)	MnIX	95
120	NT	NT	NT	NT	66	NT	NT	NT	>1.6	Median	100
122	8	31.5	21.5	8	8		28	11	3SD	Geomean linear values	95
126	127	336	270	141	125	523			>80 linear channel shift	Median linear channel	>90
130	142	210	205	142	146	276			>40	Mean channel shift	99
133	33	38	36	32	32	763			>x1.5 MFI of neg control	MFI	95
136	1.7	7.5	3.9	2.3	2.03	38 NR=1869			NR >200	Mean channel	98
138	0.03	0.04	0.21	0.03	0	0.81			>0.20	D value kolmogorov-smirnov statistic	
139											90
142	84	195	182	63	119	6343			148.6 (119+3SD)	Median log channel	92
143	-2	1	0	-2	8	52			40 linear channel shift	Channel Shift	83
144	0.95	1.23	1.32	0.95	1560	2.07			1.7	Ratio (median)	
145	0.361	0.374	0.334	0.413	0.383	30.7			2SD of the ratio	Median log channel	95
147	92.5	158	140	93.5	100.5	366			>40 linear channel shift	Linear channel	99
	-8	57.5	39.5	-7							
154	59	72	64	53	67	381			Median >150% control x shape of the curve	MFI	
157	134	147	152	130	132	495			154 (2SD)	Median linear channel	93
159	161	204	193	165	169	326			209	Median linear channel	
160	12.5	29.2	16.8	9.8	10.7	195			>22.5 (NEG+2SD)	Mean linear	
163	1	13	7.3	1	1	10.9			2.3	Geomean linear channel	97
167	194	548	310	195	203	10094			2SD		100
169	239	312	279	248	294	517			≥50 channel	Median channel	98
176	0	0.63	0.44	0	0	0.83			0.4	MFI shift	
186	0.42	1.25	1.29	0.42	0.4	8			1.5x the local neg control	MFI log channel	99
190	75.6	122.7	101.6	71.47	73.9	127			Ratio sample/neg >1.5	Median log channel	87
191	12	30	5	3	0	208			>30	MFI	100
193	4.33	19.01	17.08	4.9	4.5	204.93			Neg control mean x2.4	Geometric mean linear channel	
194					ratio 0.5	ratio 11			ratio >1.2	Median channel log	100
195	109	114	127	142	103	437			Test/Neg control ≥1.3	Median log channel	99
201	0.361	0.701	0.561	0.386	0.412	7.82			S/NK ≥2.0	X-mean	97
202	0.6	0.4	0.5	0.6	0.6	99.7			5% above the local neg control	Linear scale	
204	0.44	0.88	0.9	0.34	0.33	7.68			0.50 = 1.5x loc neg control	Mean log channel	
209	1	1.4	1.2	0.8	331	619 (1.9)			1.6	Geometric mean log channel (ratio)	
218	192	498	259	186	321	782			321 x1.2	Geometric mean fluorescence intensity	100
220	6543.5	16647.5	12795.5	3032.5	3292	163708			6000 above the mean of the neg control	Linear acquisition, linear values	92
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
235	2.77	2.42	2.37	2.19	2.51	93.85			>2 of neg MLC	MLC	85
238	866	1204	1070	817	966	7402			MESF serum/MESF neg control	MESF	
245	0	7	5	0	2	6			7	Linear Channel Shift	100
246	1	1.3	1.3	0.9		4.1			1.75x med lof fl ratio	Median log fluorescence	95
252	0.5	0.58	0.6	0.36	433.23	542.47			Median ratio ±2SD		60-70
262	1305	1285	911	876	1186	17474			2x neg value	Median channel shift	91
271	129	245	203	124	131	342			64	Median log channel	85
284	1064	775	565	399	145		1526	174	Sample serum/neg control: ratio >1.2	Median log channel	
297	40	162	142	29	41.5	111			1.5x Tneg	Median MFI	
341	3.84	5.01	4.61	3.67	3.99	13.37			3SD	Geomean linear values	98
351	1699	1669	1473	1206	481	2896			500+ NEG	MESAF	80

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B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B09/2016 (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										MFI sample/MFI neg control	
112	NT	NT	NT	NT	NT	NT	NT	NT	NT	Median log channel	5
114	545	458	459	387	430	659			490 (60 linear channel)	Median linear channel	89
115	459	464	424	332	387	626			>60 linear channel shift	Median linear channel shifts	
116	3.96	2.26	2.06	0.84	1.01	28.95			ratio > 1.7	Median log channel	
117	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
118	151	159	145	128	137	454			155 (137+18)	Median linear channel	80
119	14.9	10.3	6.89	2.94	2.39	14			Ratio >1.7	MnlX	95
									B-line (1.5-1.7)		
120	NT	NT	NT	NT	NT	NT	NT	NT	>2	Median	100
122	559	253	168.5	93	64.5		327	114	3SD	Geomean linear values	95
126	468	442	362	209	208	740			>120 linear channel shift	Median linear channel	>90
130	270	670	644	255	215	441			>80	Mean channel shift	99
133	71	79	107	46	46	2147			>x2 MFI of neg control	MFI	95
139											90
142	849	719	874	451	593.7	14302			755.4 (593.7+3SD)	Median log channel	92
144	2.64	1.33	1.45	1.08	3959	2.77			2.5	Ratio (median)	
145	4.13	0.624	0.436	0.423	0.535	49.9			2SD of the ratio	Median log channel	95
147	295	274	264	179.5	207	588			>60 linear channel shift	Linear channel	99
	88	67	57	-27.5							
154	310	184	143	93	119	1,729			Median >200% control x shape of the curve	MFI	
157	211	191	189	175	272	599			331 (2SD)	Median linear channel	93
159	459	334	298	247	273	590			373	Median linear channel	
160	508	192	91	51	38	473			>107 (NEG+2SD)	Mean linear	
163	4	3	2.3	1	1	3.7			1.7	Geomean linear channel	97
167	2316	2332	1096	775	914	57654			2SD		100
169	446	464	386	359	500	748			≥80 channel	Median channel	98
176	0.74	0.29	0.25	-0.27	0	0.56			0.22	MFI shift	
186	1.87	1.73	1.41	0.79	1	52.9			2x the local neg control	MFI log channel	99
190	513	311,3	257,3	156,3	163	762			Ratio sample/neg >2.5	Median log channel	87
191	139	122	15	1	0	403			>100	MFI	100
193	195.86	117.86	97.76	41.52	42.4	541.64			Neg control mean x1.9	Geometric mean linear channel	
194									ratio >4	Median channel log	100
195	139	142	185	170	119	4286			Test/Neg control ≥1.6	Median log channel	99
201	4.36	3.72	2.54	2.58	3.58	14.7			S/NK ≥2.5	X-mean	97
202	14.4	6.9	4	2.3	2.1	100			8% above the local neg control	Linear scale	
204	8.03	6.36	4.85	1.9	1.83	49.9			3.66 = 2x loc neg control	Mean log channel	
209	4	2.3	1.8	0.9	615	1330 (2.2)			1.9	Geometric mean log channel (ratio)	
218	2778	4295	3425	1901	1812	1800			1812 x1.7	Geometric mean fluorescence intensity	100
220	22963.5	19745.5	16671	3307.5	3044	209936			6000 above the mean of the neg control	Linear acquisition, linear values	92
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
235	35.87	14.4	13.08	6.26	6.32	686.43			>18 of neg MLC	MLC	85
238	5890	3231	2322	1659	2206	22115			MESF serum/MESF neg control	MESF	
245	18.7	13.7	14.2	0.7	5.3	75			15	Linear Channel Shift	100
246	3.1	1.4	1.5	0.8		10.5			2.5x med lof fl ratio	Median log fluorescence	95
252	2.53	1.14	1.1	0.95	102.74	1298.02			Median ratio ±2SD		60-70
262	6988	3396	2238	1603	1993	73338			2x neg value	Median channel shift	91
271	385	284	NT	171	186	457			90	Median log channel	85
284	1077	738	509	362	160		8521	206	Sample serum/neg control: ratio >1.2	Median log channel	
297	1687	832	758	285	330	30511			2x Tneg	Median MFI	
341	25.53	14.97	9.44	6.86	10.12	84.16			3SD	Geomean linear values	98
351	1356	1171	1010	1165	300	13616			2500+ NEG	MESAF	80