

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B10/2018 PC (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 11TH DECEMBER 2018

HLA PHENOTYPE OF BLOOD DONOR: HLA-A11, A31; B35, B60; Cw4, Cw10; DR4, DR-; DQ8, DQ-

		Summary of Results										
		T-cells				B-cells						
Total tested		38	38	37	36	35	35	33	32			
Positive		37	26	3	1	34	32	29	19			
Negative		1	12	34	35	1	3	3	13			
Equivocal		0	0	0	0	0	0	1	0			
NT		6	6	7	8	6	6	8	9			
% Positive		97.4%	68.4%	8.1%	2.8%	97.1%	91.4%	87.9%	59.4%			
% Negative		2.6%	31.6%	91.9%	97.2%	2.9%	8.6%	9.1%	40.6%			
% Equivocal		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	0.0%			
Consensus		Positive	Not Assessed	Negative	Negative	Positive	Positive	Positive	Not Assessed			
HLA Antibody Specificity (Defined By CDC)		A3 A19 A24 B12+ DR4+	Cw5 Cw6	A1 B8 DR4+	A10 A28 B8 DR4	A3 A19 A24 B12+ DR4+	Cw5 Cw6	A1 B8 DR4+	A10 A28 B8 DR4			
Lab No.	Assessment T-cells B-cells	Serum 1	Serum 2	Serum 3	Serum 4	Serum 1	Serum 2	Serum 3	Serum 4	Date Received	Date Tested	Comments
112	YES YES	NT	NT	NT	NT	NT	NT	NT	NT	18-Dec	18-Dec	Low viability
115	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	13-Dec	
117	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	NT	Negative	13-Dec	13-Dec	Serum 4 gave results with bad replication in T & B cells. 2 & 3 very low number of B cells.
118	YES	Positive	Positive	Negative	Negative					12-Dec	12-Dec	Very low cell count, sample had clots.
120	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Positive	12-Dec	13-Dec	
122	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Positive	12-Dec	13-Dec	Very low number of B cells
130	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Positive	12-Dec	13-Dec	Agglutinated cells resulted in very few cells for testing
133	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Negative	Positive	13-Dec	14-Dec	
138	YES	Positive	Positive	Negative	Negative					12-Dec	12-Dec	
139	YES YES	NT	NT	NT	NT	NT	NT	NT	NT	14-Dec	NT	Technical failure
143	YES	NT	NT	NT	NT					22-Dec	NT	Customs delay/error.
144	YES YES	Positive	Positive	Negative	Negative	Negative	Positive	NT	Negative	12-Dec	13-Dec	Cells were in bad condition. A lot of clots.
145	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Positive	12-Dec		
147	YES YES	NT	NT	NT	NT	NT	NT	NT	NT	12-Dec	12-Dec	Low number of cells (presence of aggregates)
149	YES YES	Positive	Negative	Negative	Negative	Positive	Positive	Positive	Positive	12-Dec	13-Dec	
154	YES YES	Positive	Positive	Positive	Negative	Positive	Positive	Positive	Positive	13-Dec	13-Dec	Serum 2 was equivocal because having exactly a median MFI of 250% of the NC
157	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Positive	12-Dec	12-Dec	
159	YES YES	Positive	Positive	Positive	Negative	Positive	Positive	Positive	Positive	13-Dec	13-Dec	Highly cells floccule in the primary sample
160	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Positive	12-Dec	13-Dec	Shipped cell suspension included a clot. Very low number of B cells.
163	YES YES	NT	NT	NT	NT	NT	NT	NT	NT	12-Dec	13-Dec	Controls failure. The NC were pos as a value 10x higher than normal - impossible to interpret.
167	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	13-Dec	
169	YES YES	Positive	Negative	Negative	Negative	Positive	Positive	Positive	Negative	11-Dec	12-Dec	
189	YES YES	Negative	Negative	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	13-Dec	
190	YES YES	Positive	Positive	Negative	NT	Positive	Positive	Positive	Positive	12-Dec	13-Dec	
191	YES YES	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	12-Dec	13-Dec	
193	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Positive	12-Dec	12-Dec	Not tested in duplicate since the number of cells was very low (presence of aggregates)
194	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	NT	12-Dec	12-Dec	Low number of B cells
195	YES YES	Positive	Negative	Negative	Negative	Positive	Positive	Positive	Negative	14-Dec	14-Dec	Aggregated cells.
201	YES YES	Positive	Negative	Negative	Negative	NT	NT	NT	NT	12-Dec	13-Dec	The cells were clotted. We received samples with aggregated cells.
209	YES YES	Positive	Positive	NT	NT	Positive	Positive	Positive	Positive	12-Dec	13-Dec	
218	YES YES	Positive	Positive	Negative	Negative	Positive	Negative	Equivocal	Negative	18-Dec	18-Dec	Very poor lymphocyte viability
220	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Positive	12-Dec	13-Dec	
235	YES YES	Positive	Negative	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	12-Dec	
238	YES YES	Positive	Negative	Negative	Negative	Positive	Positive	Positive	Positive	12-Dec	13-Dec	
240	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Negative	Negative	13-Dec	13-Dec	
246	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	12-Dec	
252	YES YES	Positive	Negative	Negative	Negative	Positive	Positive	Positive	Negative	14-Dec	14-Dec	
260	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Positive	13-Dec	13-Dec	
262	YES YES	Positive	Negative	Negative	Negative	Positive	Positive	Positive	NT	12-Dec	12-Dec	Poor quality cells
271	YES YES	NT	NT	NT	NT	NT	NT	NT	NT	16-Dec	17-Dec	The cells are clumped
276	YES YES	Positive	Negative	Negative	Negative	Positive	Positive	Positive	Positive	12-Dec	14-Dec	
293	YES YES	Positive	Negative	Negative	Negative	Positive	Positive	Positive	Negative	13-Dec	13-Dec	
297	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Positive	12-Dec	13-Dec	
351	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Negative	Negative	15-Dec	15-Dec	
392	YES YES											No results returned

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T-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B09/2018 (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 (%)
112	NT	NT	NT	NT	NT	NT	NT	NT	NT	Median Log Channel	0
115	678	540	426	409	454	524			>40	Median linear channel shift	-
117	33.42	9.87	5.99	5.83	5.83	37.44			Ratio (RMF) >1.3	Median Log Channel	95
118	440	385	167	220	188	830			254 (188+66)	median linear channel	80
120	14.03	2.91	1.42	1.35	82	2448.5			ratio > 1.6	Median	100
122	242	72	12	11	9	141			3SD	Geomean liner value	85
130	480	309	190	192	176	292			40	Mean channel shift	95
133	18.2	0.7	0.3	0.6	0.1	49.5			2SD	MFI	99
138	0.31	0.32	0.02	0.06	0	0.73			0.2	-	-
139	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
143	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
144	9.16	2.36	1.13	1.31	1419	4.47			1.6	Mean→Ratio	-
145	4.24	0.602	0.339	0.448	0.324	49.9			2SD of the ratio	Median Log Channel	92
147	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
149	9.1	0.61	0.62	0.55	0.47	152			2SD	Median Log Channel	80
154	2182	362	145	112	64	2331			median>200 % of negative control	MFI	-
157	388	247	129	154	156	17429			184 (neg+2SD)	Median log channel	97
159	501	318	227	212	176	514			216 (40 mean linear channel shift)	Channel	-
160	112	44.5	10.2	11.2	8.8	462			>18.6 (Neg+2SD)	Mean Linear Channel	-
163	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
167	3062	945	271	325	236	22145			2SD	Median Log Channel	98
169	432	288	214	207	272	447			≥50 channel	Median channel	98
189	1.62	0.49	0.58	0.74	1.48	96.6			>5%	%	95
190	566	178	56	NT	43	107			ratio>1.5	MFI X median	89
191	212	248	33	89	0	299			>30	MFI	95
193	209.16	58.41	15.01	17.93	16.03	272.99			2.4 x local negative control	Geometric mean linear channel	NT
194	13.7	3.6	0.9	1	0.67	22			ratio>2	Median of MFI	-
195	1158	612	489	502	496	1825			Test/NC ≥1.3	Median Log Channel	95
201	1.31	0.69	0.50	0.50	0.52	12.6			S/NK ≥ 2.0	X-MEAN	85
209	7703 (22.9)	1649 (4.9)	NT	NT	337	1930			Ratio >1.6	Geometric Mean Log Channel (Ratio)	90
218	242	110	93.7	99.8	83	3834			99	MFI	-
220	82921.5	10508	2648	3573	3023	219370			6000 above the mean of the negative controls	Linear acquisition, linear scale	90
235	24.14	4.22	3.37	3.55	3.43	39.6			2 median log channel value above the NC indicates a pos	Median log channel	85
238	5628.61	3076.21	3530.29	2546.64	2494.46	4075.59			ratio positive/negative above 2	MESF	-
240	351	76	22	23	19	917			1,2*NC	MFI	60
246	16	4.6	0.9	1.1		4.8			1.75	MFI	85
252	27.38	4.49	4.21	3.49	60	205			Median ratio ±2SD	-	70
260	99.84	63.66	14.92	11.29	9.3	99.27			>25% shift	% Shift	-
262	5328	1546	883	774	1328	26429			> 2SD	Median channel shift	88
271	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
276	2364	639	177	256	457	6029			>1.5x neg ctrl	Median Fluorescence Intensity	98
293	55.7	14.7	7.17	8.4	7.9	119.7			10 channel Shift	Channel Shift	80
297	1896	487	183	161	155	407			1.8x Tneg	MFI	-
351	382.5	218.5	211	204	191	681			2SD. Above 87 channel shift	MCS	100
392											

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112	NT	NT	NT	NT	NT	NT	NT	NT	NT	Median Log Channel	0
115	899	749	753	646	588	697			>60	Median linear channel shift	-
117	161.72	48.89	NT	NT	10.95	66.18			Ratio (RMF) >1.5	Median log channel	95
120	23.46	4.97	6.73	2.7	452	4487.5			ratio > 2	Median	100
122	2207.5	655	650.5	305.5	80.5	458			3SD	Geomean liner value	85
130	675	562	570	493	275	507			80-100	Mean channel shift	95
133	156.3	10.9	16.4	17.5	2.5	188.7			2SD	MFI	99
139	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
144	1.55	7.98	NT	1.61	783	3.96			2.6	Mean→Ratio	-
145	22.8	4.32	7.21	2.93	1.05	10.8			2SD of the ratio	Median log channel	92
147	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
149	12.6	17.6	24.9	8.45	1.25	108			2SD	Median log channel	80
154	16672	3694	4325	2369	356	2617			median>250% of negative control	MFI	-
157	2292	1119	389	389	245	23677			281 (neg+2SD)	Median log channel	97
159	731	579	609	511	346	641			446 (100 mean linear channel shift)	Channel	-
160	1959	621	656	285	51.8	1231			>120 (Neg+2SD)	Median linear channel	-
163	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
167	27689	7418	7182	2601	1643	23965			2SD	Median log channel	98
169	566	461	511	208	323	807			≥80 channel	Median channel	98
189	80.92	7.33	5	3.17	3.79	99.9			>5%	%	95
190	1000	1000	940	491	81	1000			ratio >2.5	MFI X median	89
191	286	252	174	156	0	410			>100	MFI	95
193	1784.71	519.86	553.83	282.32	115.65	594			2.3 x local negative control	Geometric mean linear channel	-
194	100	25.6	18.5	NT	2.8	91			ratio>3	Median of MFI	-
195	6370	1494	1251	767	670	4396			Test/NC ≥1.6	Median log channel	95
201	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
209	75.21 (23.7)	19596 (6.2)	20201 (6.3)	12201 (3.8)	3184	7320			ratio >1.7	Geometric Mean Log Channel (Ratio)	90
218	2255	777	992	639	546	9060			928.2	MFI	-
220	256313.5	49961.5	42082	13705.5	6841	162947			6000 above the mean of the negative controls	Linear acquisition, linear scale	90
235	134.56	11.14	9.04	4.96	2.81	107.46			6 median log channel value above the NC indicates a pos	Median log channel	85
238	36661.56	10919.95	19274.62	9049.55	3892.55	13925.06			ratio positive/negative above 2	MESF	-
240	1700	1562	1208	1324	984	2032			1,4*NC	MFI	60
246	22.7	10.5	5.5	2.1	5.5	25.4			2.5	MFI	85
252	27.38	4.49	4.21	3.49	97	259			Median ratio ±2SD	-	70
260	99.75	76.14	87.66	48.92	16.78	98.85			>25% shift	% shift	-
262	31270	7908	8468	NT	2429	56664			> 2SD	Median channel shift	88
271	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
276	23387	5395	5365	3147	1648	6927			>1.5x NC	MFI	98
293	474	241.4	252.5	29.4	14.07	582.9			20 Channel Shift	Channel Shift	80
297	9780	3325	3598	2257	467	1500			2.1x Tneg	MFI	-
351	672	445.5	455.5	410	359	831			2SD. Above 119 channel shift	MCS	100
392											