

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B08/2018 PC (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 02ND OCTOBER 2018

HLA PHENOTYPE OF BLOOD DONOR: HLA-A1, A2; B51, B57; Cw6, Cw-; DR7, DR11; DQ7, DQ9

Summary of Results												
T-cells				B-cells								
Total tested	38	38	38	38	36	35	34	35				
Positive	32	5	2	0	34	4	34	1				
Negative	5	33	36	38	2	31	0	34				
Equivocal	1	0	0	0	0	0	0	0				
NT	7	7	7	7	7	8	9	8				
% Positive	84.2%	13.2%	5.3%	0.0%	94.4%	11.4%	100.0%	2.9%				
% Negative	13.2%	86.8%	94.7%	100.0%	5.6%	88.6%	0.0%	97.1%				
% Equivocal	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%				
Consensus	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative				
HLA Antibody Specificity (Defined By CDC)	Cw5 Cw6	A1	A29 DR7 DQ2	B44	Cw5 Cw6	A1	A29 DR7 DQ2	B44				
Lab No.	Assessment	T-cells				B-cells				Date Received	Date Tested	Comments
	T-cells B-cells	Serum 1	Serum 2	Serum 3	Serum 4	Serum 1	Serum 2	Serum 3	Serum 4			
112	YES YES	NT	NT	NT	NT	NT	NT	NT	NT	16-Oct	16-Oct	Low cell viability
115	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	04-Oct	
117	YES YES	Positive	Negative	Negative	Negative	NT	NT	NT	NT	04-Oct	04-Oct	Bad replication of NC of T-cells. Poor B-cells
120	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	04-Oct	
122	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	04-Oct	Low number of B cells
130	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	03-Oct	04-Oct	
133	YES YES	Negative	Negative	Negative	Negative	Positive	Negative	Positive	Negative	04-Oct	05-Oct	
138	YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	03-Oct	
139	YES YES	Positive	Positive	Negative	Negative	Positive	Negative	Positive	Negative	05-Oct	05-Oct	
143	YES	NT	NT	NT	NT	Positive	Negative	Positive	Negative	04-Oct	04-Oct	
144	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	04-Oct	04-Oct	
145	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	04-Oct	
147	YES YES	Positive	Negative	Negative	Negative	Positive	NT	NT	NT	03-Oct	03-Oct	Low number of B cells
149	YES YES	Equivocal	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	04-Oct	
154	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	04-Oct	
157	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	03-Oct	
159	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	05-Oct	05-Oct	Shipment delays. Poor B cell concentration
160	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	04-Oct	Low number of B cells
163	YES YES	NT	NT	NT	NT	NT	NT	NT	NT	03-Oct	03-Oct	Technical issue
167	YES YES	Positive	Positive	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	04-Oct	
169	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Positive	Negative			
176	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	04-Oct	05-Oct	
189	YES YES	Negative	Negative	Negative	Negative	Negative	Positive	Positive	Negative	03-Oct	04-Oct	
190	YES YES	NT	NT	NT	NT	NT	NT	NT	NT	03-Oct	04-Oct	
191	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	04-Oct	
193	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	03-Oct	Not enough cells for duplicates. Very high noise.
194	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	04-Oct	
195	YES YES	Negative	Negative	Negative	Negative	Positive	Negative	NT	Negative	05-Oct	05-Oct	S3 technical failure. Not enough cells to repeat
201	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	04-Oct	05-Oct	Cells were clotted
209	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	04-Oct	Negative control has a high reactivity
218	YES YES	NT	NT	NT	NT	NT	NT	NT	NT	05-Oct	05-Oct	Low viability
220	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	04-Oct	
235	YES YES	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	03-Oct	03-Oct	
238	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	04-Oct	
240	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Positive	04-Oct	04-Oct	
246	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	04-Oct	04-Oct	
252	YES YES	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	04-Oct	04-Oct	
260	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	04-Oct	04-Oct	
262	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	03-Oct	
271	YES YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	08-Oct	08-Oct	Cells were clotted. Delivery delayed
276	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	04-Oct	
293	YES YES	Positive	Negative	Negative	Negative	Positive	Negative	Positive	Negative	04-Oct	04-Oct	
297	YES YES	Negative	Negative	Negative	Negative	Positive	Negative	Positive	Negative	03-Oct	04-Oct	
351	YES YES	NT	NT	NT	NT	NT	NT	NT	NT	06-Oct	06-Oct	Very low cell count
392	YES YES	NT	NT	NT	NT	NT	NT	NT	NT			No results returned

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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											
115	497	374	348	398	371	430			>40	Median Linear Channel Shift	
117	16.09	4.75	5.21	4.94	4.45	82.32			Ratio (RMF) >1.3	Median Log Channel	95
120	2.78	1.45	1.2	1.12	74	9034.5			Ratio >1.6	Median	100
122	84.5	18.5	10	10	11.5		118	33	3SD	Geo Mean Linear Value	98
130	292	205	138	129	165	228			40	Channels	95
133	0.9	0.4	0.2	0.3	0.5	89.7			2SD	MFI	85
138	0.37	0.14	0.04	0.04	0	0.91			0.2		
139	1.9	0.8	0.52	0.48	0.47	22			>1.5 Local Neg Control	MFI	80
143											
144	1.71	1.04	1.01	0.99	1280	8.59			1.6		
145	0.677	0.361	0.299	0.299	0.361	46			2SD of the ratio	Median Log Channel	90
147	240	150	151	137	158	594			>40 Linear Channel Shift	Linear Channel	100
149	0.462	0.306	0.303	0.317	0.321	58.3			2SD	Median Log Channel	88
154	179	82	56	46	60	2789			Median >200% of negative control	Median of Fluorescence	
157	240	144	142	132	151	4237			179 (negative +2SD)	Median Log Channel	96
159	318	210	175	165	162	471			40 Linear	Channel	90
160	34.4	9.8	9	8.8	7.4	203			>16.2 (Negative +2SD)		
163											
167	829	305	244	228	192	12163			2SD		98
169	281	252	253	246	270	548			>=50 Channel	Median Channel	98
176	0.59	0.14	0.01	-0.02	0	0.73			0.4	MFI Shift	
189	1.01	2.97	1.67	1.72	1.85	89.08			>5%	Percentage	90
190											
191	140	14	-0.4	-2.8	0	423			>30	MFI	91
193	62.63	20.05	14.53	10.71	17.64	238.93			Ratio >2.4	Geo Mean	
194	1.9	0.7	0.6	0.5	0.5	22			Ratio >2.2	Median MFI	90
195	146	127	125	125	126	241			Test/Negative Control >/= 1.3	Median Log Channel	50
201	1.59	659	573	519	0.59	31.4			Ratio (S/NC)>/= 2.0	X Mean	95
209	1877	579	440	365	602	3248			>1.6 (Ratio)	Geometric Mean Log	95
218											
220	12979.5	5807.5	3787.5	2199.5	2588.75	261659			6000	Linear Acquisition	97
235	8.17	5.33	8.51	6.58	4.96	66.71			2 Median Log Channel	Median Log Channel	85
238	3880	2810	2417	2410	2395	21599			MESF Serum/ MESF Negative Control	MESF	
240	43	21	12	12	12	1202			NC 1.2	MFI	60
246	5.26	1.16	1.09	1.05	1.05	12.35			1.75	MFI	93.9
252	1.3823	0.6032	1.2186	0.7222	39.6	770.4			Median Ratio 2SD	MCR	70
260	62.49	8.63	3.01	3.03	5.33	94.69			>25% Shift	% Shift	
262	1486	498	733	437	457	21632			SUP 2SD	Median Channel Shift	82
271	338	242	164	142	159	564			64	Median Log Channel	99
276	710	195	183	157	413	5735			>1.5x Neg Ctrl	Median Fluorescence Intensity	
293	12.08	5.38	6.55	4.96	4.87	381.9			10 Channel Shift	Channel Shift	80
297	344	149	96	65	262	528			1.8xTneg (GZ: 1.3-1.8)	Median MFI	
351											
392											

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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											
115	668	469	681	447	476	710			>60	Median Linear Channel Shift	
117											
120	4.3	1.32	5.87	1.14	384	16514.5			Ratio >2	Median	100
122	501	102.5	639.5	71.5	81.5		396	128	3SD	Geo Mean Linear Value	98
130	477	355	524	253	267	398			80-100	Channels	95
133	7.7	1.2	12.2	0.8	1.0	294.6			2SD	MFI	85
139	16.9	3.45	28.3	2.34	3.15	133			>2 Local Neg Control	MFI	80
144	4.51	1.14	6.59	0.76	3159	8.53			2.6		
145	2.24	0.754	5.36	0.597	1.61	6.36			2SD of the ratio	Median Log Channel	90
147	402				187	665			>60 Linear Channel Shift	Linear Channel	100
149	1.51	0.486	1.92	0.523	0.86	51.3			2SD	Median Log Channel	88
154	686	249	1347	109	263	4166			Median >250% of negative control	Median of Fluorescence	
157	667	174	696	161	216	9595			252 (Negative +2SD)	Median Log Channel	96
159	526	362	572	308	298	636			100 Linear	Channel	90
160	374	53	505	77.5	37.2	381			>76.3 (Negative +2SD)	Mean Linear Channel	
163											
167	3750	1426	5677	1081	1159	48383			2SD		98
169	431	323	597	335	400	819			>/=80	Median Channel	98
176	0.69	-0.07	0.9	-0.18	0	0.47			0.22	MFI Shift	
189	4.41	8.89	11.29	3.19	1.45	99.99			>5%	Percentage	90
190											
191	108	16	111	4.6	0	421			>100	MFI	91
193	389.09	105.91	529.09	72.21	109.92	465.17			Ratio >2.3	Geo Mean	
194	12.1	2.4	20.3	1.7	3	149			Ratio >3	Median MFI	90
195	175	107	98	98	104	582			Test/Negative Control >/= 1.6	Median Log Channel	50
201	11.5	3.15	11.3	2.32	2.52	62.4			Ratio (S/NC) >/=2.5	X Mean	95
209	11797	2887	16746	2814	3046	8378			>1.7 (Ratio)	Geometric Mean Log	95
218											
220	26031	9111	56363.5	4507.5	5219.75	261587			6000	Linear Acquisition	97
235	25.68	6.49	70.41	6.58	4.03	85.05			12 Median Log Channel	Median Log Channel	85
238	12904	6058	13106	4638	5028	43579			MESF Serum/ MESF Negative Control	MESF	
240	1700	1402	1350	1363	952	2028			NC 1.4	MFI	60
246	9.45	0.95	8.85	0.92	8.85	34.09			2.5	MFI	94
252	10.3199	0.3619	2.3713	0.1971	243.62	2167.39			Median Ratio 2SD		70
260	34.05	9.64	25.64	8.04	10.54	99.29			>25% Shift	% Shift	
262	6786	1239	7543	1018	1142	81472			SUP 2SD	Median Channel Shift	82
271	509	310	598	174	194	776			90	Median Log Channel	99
276	3036	724	7044	666	1349	8532			>1.5x Neg Ctrl	Median Fluorescence Intensity	
293	164.74	11.14	194.56	11.97	11.86	103.2			20 Channel Shift	Channel Shift	80
297	967	149	785	68	267	693			2.1xTneg (GZ: 1.6-2.1)	Median MFI	
351											
392											