

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

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

DISPATCHED ON 11TH DECEMBER 2018

HLA PHENOTYPE OF BLOOD DONOR: HLA-A2, A3; B7, B57; Cw6, Cw7; DR7, DR15; DQ6, DQ9

**Summary of Results**

	T-cells				B-cells			
	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
Total tested	19	19	19	19	17	17	17	17
Positive	19	16	1	0	17	17	17	0
Negative	0	1	18	19	0	0	0	17
Equivocal	0	2	0	0	0	0	0	0
NT	3	3	3	3	3	3	3	3
% Positive	100.0%	84.2%	5.3%	0.0%	100.0%	100.0%	100.0%	0.0%
% Negative	0.0%	5.3%	94.7%	100.0%	0.0%	0.0%	0.0%	100.0%
% Equivocal	0.0%	10.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Consensus</b>	<b>Positive</b>	<b>Positive</b>	<b>Negative</b>	<b>Negative</b>	<b>Positive</b>	<b>Positive</b>	<b>Positive</b>	<b>Negative</b>
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				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			
9	YES		Positive	Positive	Negative	Negative					12-Dec	13-Dec	
11	YES	YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	13-Dec	
14	YES	YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	11-Dec	12-Dec	
15	YES	YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	13-Dec	13-Dec	
19	YES	YES	NT	NT	NT	NT	NT	NT	NT	NT	12-Dec	NT	Technical error
20	YES	YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	13-Dec	
23	YES	YES	Positive	Positive	Positive	Negative	Positive	Positive	Positive	Negative	12-Dec	12-Dec	
24	YES	YES	NT	NT	NT	NT	NT	NT	NT	NT	13-Dec	14-Dec	Delay of sample receipt amd samples partially frozen on receipt
25	YES	YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	12-Dec	
28	YES	YES	Positive	Equivocal	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	12-Dec	Serum 2 contained small clots
34	YES	YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	12-Dec	
35	YES		NT	NT	NT	NT					13-Dec	13-Dec	Late delivery
38	YES	YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	12-Dec	
39	YES	YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	12-Dec	
41	YES	YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	12-Dec	Serum 2 sample failed. Insufficient cells to repeat
42	YES	YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	12-Dec	
45	YES	YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	12-Dec	
48	YES	YES	Positive	Negative	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	12-Dec	
51	YES	YES	Positive	Equivocal	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	13-Dec	Insufficient cells to test B cells
54	YES	YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	13-Dec	
58	YES	YES	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Negative	12-Dec	12-Dec	
62	YES	YES	Positive	Positive	Negative	Negative	NT	NT	NT	NT	12-Dec	12-Dec	Low lymphocyte yield

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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 (%)
9	3.1	0.7	0.4	0.4	0.4	10.8			>1.5 x Trimmed Mean		90
11	513, 500	362, 366	136, 140	149, 148	122, 118, 135, 134	542, 2295			1.2 RMF of Negatives	Median Log Channel	
14	4215	2612	1250	1166	1081	23776			1.5 x Mean Negative	Median Fluorescence	
15	1587	7705	216.5	224	215	13794			RMF >1.5	Median	
19	NT	NT	NT	NT	NT	NT					
20	2.7	1.36	0.308	0.389	0.327	1.114			40 Linear Channel Shift	Median Channel Fluorescence	90
23	27.3	25.4	9.69	7.39	4.88	46.56			3SD	Median Channel Fluorescence	
24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
25	4.2	3.6	1	1.1	132	5091			RMF 1.2	Median Log Channel	
28	145	73	30	45	34	936			Pos:Neg $\geq$ 3.1 Pos 1.6-3.0 Equivocal	MFI	95
34	25.6	27.2	19.8	17.9	18.1	145			+2SD 24.2	Median FL1	
35	10.06	5.14	1.16	1.75	1.01	90.1			Mean +3SD	Median Log Channel	10
38	262.1	166.2	24.4	-1.4	0	513.5			33 Linear Channel Shift	Linear Channel Shift	95
39	0.59	0.45	0.15	0.15	0.14	5.46			>1.5 RMF	Median Log Fluorescence	
41	998	478	146	131	121	12385			RMF >1.6	Median	95
42	2.27	1.4	0.98	0.93	1	77.12			RMF >1.3	RMF	
45	393	273	181	181	184	603			40 Channel Shift	Median Channel Value	
48	5.02	1.45	0.7	0.74	0.74	53.83			>2.3	Median	
51	11.4	2.1	0.04	-0.18	0.12	53.3			2.6		90
54	523, 534	439, 436	249, 260	253, 269	289, 292, 299	869			Test:MESF ratio $\geq$ 1.2 = weak pos, $\geq$ 1.5 = pos	Median Channel Shifts	
58	369	488	117	127	119	1090			1.5 x Mean	Median Fluorescence	85
62	2.28	3.66	0.56	0.63	0.55	51.08			RMF >1.5	Median Fluorescence	90

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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 (%)
9	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
11	7548, 7825	3186, 3292	3975, 4051	575, 568	370, 378, 507, 472	4187, 19977			1.5 RMF of Negatives	Median Log Channel	
14	23019	8883	11003	5016	4115	66192			1.5 x Mean Neagtive	Median Fluorescence	
15	13090.5	4186	5134.5	903.5	1170.5	25370.5			RMF >1.5	Median	
19	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
20	28.466	10.326	10.465	2.040	2.047	5.37			40 Linear Channel Shift	Median Channel Fluorescence	90
23	250.2	143.4	106.7	36.2	18.99	124			2SD	Median Channel Fluorescence	
24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
25	15.6	5.4	5.9	1.0	270	8042			RMF >1.3	Median Log Channel	
28	696	218	155	51	42	1402			Pos:Neg >/= 3.6 2.0-3.5 Equivocal	MFI	95
34	21.4	12.4	10.7	5.88	4.8	53			+2SD 6.9	Median FL1	
35	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	10
38	167.5	47.7	102.8	-15.2	0	284.2			40 Linear Channel Shift	Linear Channel Shift	95
39	6.65	3.83	2.68	2.11	1.21	14.65			>2.0 RMF	Median Log Fluorescence	
41	5878	1571	2771	674	858	17977			RMF >1.6	Median	95
42	10.99	2.17	3.37	0.87	1	206.55			RMF>1.5	RMF	
45	657	512	560	433	445	764			40 Channel Shift	Median Channel Value	
48	29.77	6.43	11.21	1.67	1.76	83.66			>2.3	Median	
51	33.9	105	11.3	0	0	78.4			6.5		90
54	640	566	605	462	422, 421	845			Test:MESF ratio ≥1.2 = Weak Pos, ≥1.5 = Pos	Median Channel Shifts	
58	7989	3617	4050	582	590	9562			1.5 x Mean	Median Fluorescence	85
62	48.54	29.58	25.76	7.92	4.62	136.51			RMF >3	Median Fluorescence	90