

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B05/2017 (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 9th May 2017

HLA PHENOTYPE OF BLOOD DONOR: HLA-A1, A3; B7, B8; Cw7, Cw-; DR1, DR17; DQ2, DQ5

Summary of Results												
T-cells					B-cells							
Total tested	20	20	22	22	17	17	16	17				
Positive	20	2	1	22	17	17	1	17				
Negative	0	18	21	0	0	0	15	0				
NT/Equivocal	2	2	0	0	2	2	3	2				
% Positive	100.0%	10.0%	4.5%	100.0%	100.0%	100.0%	6.3%	100.0%				
% Negative	0.0%	90.0%	95.5%	0.0%	0.0%	0.0%	93.8%	0.0%				
<b>Consensus</b>	<b>Positive</b>	<b>Negative</b>	<b>Negative</b>	<b>Positive</b>	<b>Positive</b>	<b>Positive</b>	<b>Negative</b>	<b>Positive</b>				
HLA Antibody Specificity (Defined By CDC)	B44	DR4, DR9	A2	B7	B44	DR4, DR9	A2	B7				
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	
9	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	11-May	Celly layers, insufficient cells to test in duplicate	
11	Positive	Negative	Negative	Positive	Positive	Positive	Equivocal	Positive	10-May	11-May		
14	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	10-May		
15	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive				
19	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive				
20	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive	11-May	11-May		
23	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	10-May	10-May		
24	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	11-May		
25	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	10-May		
28	Equivocal	Equivocal	Negative	Positive	NT	NT	NT	NT	11-May	11-May		
34	Positive	Equivocal	Negative	Positive	Positive	Positive	Negative	Positive	10-May	10-May	Not enough events on B cell crossmatch for valid run. Issue with cytometer sample injection port	
35	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	11-May		
38	Positive	Positive	Negative	Positive	Positive	Positive	Negative	Positive	10-May	10-May		
39	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	10-May		
41	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	10-May		
42	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	10-May		
45	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	11-May		
48	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive	11-May	11-May		
51	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	11-May		
54	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	11-May		
58	Equivocal	Negative	Negative	Positive	NT	NT	NT	NT	10-May	10-May	Insufficient B cells collected to report a valid result	
62	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	10-May		

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T-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B05/2017 (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 (%)
9	3.39	0.78	0.77	3.22	1.39	21.50			>1.5 x Trimmed mean	Media x (log)	95
11	304, 290	127, 129	129, 122	860, 806	118, 133, 135	230, 342			154.4 (1.2 RMF)	Median Log Fluorescence	
14	870.5	496.5	428.5	2573.5	435.5	4957			1.5 x mean NEG	Median Log Channel	
15	343	168	154	880	166	12061			RMF >1.5	Median	90
19	0.785	0.231	0.204	2.694		7.16			1.48 x average AB/5	Log Median X	
20	1.416	0.44	0.423	3.933	0.403	1.101			40 Linear Channel Shift	Linear Channel Shift	
23	9.3	279.9	165.9	174.7	5.75	38.57			3SD	Median Channel Fluorescence	
24	226	111	117	532	119	679, 198			1.5 x negative	MFCN	
25	179	62	64	616	64	5574			RMF >1.3	Median Log Channel	
28	104	63	60	176	40	911			≥1.6 -3 equivocal ≥3.1 positive	MFI	
34	9.17	7.57	6.19	13.57	4.1	38.1			2SD	Median FL1	
35	6.74	2.19	2.47	26.79	2.31	95.07			Mean of negative control +3SD	Median Log Channel	90
38	138.6	47.7	-2.1	234.6	0	441.4			33 Linear Channel Shift	Linear Channel Shift	
39	0.26	0.15	0.15	0.63	0.15	1.45			>1.5 RMF	Median Log Fluorescence	
41	378	203.3	202.7	907	232.7	4869			RMF >1.6	Median Channel	
42	2.04	1.07	1.01	5.75	1	102.14			>1.3	RMF	
45	306	210	206	440	199	697			40 channel shift (239)	Median Channel Shift	
48	0.179	0.6	0.58	1.53	0.58	3.04			>1.3 RMF	Median Fluorescence Channel	
51	6.2	2.1	2.6	16.2	2.47	216			4.97		
54	405, 381	257, 268	225, 212	520, 513	295, 298, 292	786		Test; neg MESF ratio	≥1.2 weak positive ≥1.5 positive	Median Channel Shift	
58	386	197	210	922	230	1297			1.5 x mean	Log Median	
62	1.13	0.41	0.4	3.36	0.377	5.4			RMF >1.5	Median Log Channel	

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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		Media x (log)	
11	11428, 11023	4773, 4283	2065, 1768	4722, 4026	1556, 1677, 1558	12912, 21998			1916.4 (1.2 RMF)	Median Log Fluorescence	
14	14436	7117	1992	6995.5	2079	19023			1.5 x mean NEG	Median Log Channel	90
15	6094	5917	1165	3926	1373	39662		RMF >1.5	Median		
19	20.325	9.906	4.390	11.512		74.076			1.88 x average AB/5	Log Median X	
20	17.869	12.718	1.861	11.6	2.211	4.714			40 Linear Channel Shift	Linear Channel Shift	
23	37.9	238.4	145.37	166.16	13.59	81.68			2SD	Median Channel Fluorescence	
24	1045	407	288	1017	226	1656, 363			1.5 x negative	MFCN	
25	2730	1675	509	2323	575	17468			RMF >1.3	Median Log Channel	
28	NT	NT	NT	NT	NT	NT	NT	NT		MFI	
34	67.93	47.67	34.60	55.93	22.12	225			2SD	Median FL1	
35	NT	NT	NT	NT	NT	NT	NT	NT		Median Log Channel	
38	42.5	150.4	-32.9	91.1	0	303.8			40 linear channel shift	Linear Channel Shift	
39	4.64	1.76	0.57	2.00	0.52	10.70			>2.0 RMF	Median Log Fluorescence	
41	3242.3	3067.7	613.7	2680.7	358.7	11600			RMF >1.6	Median Channel	
42	5.11	3.14	0.95	3.01	1	39.1			>1.5	RMF	
45	NT	NT	NT	NT	NT	NT				Median Channel Shift	
48	4.58	6.36	1.18	3.58	1.36	14.28			>1.3 RMF	Median Fluorescence Channel	
51	12.7	15.6	6.2	30.5	5.81	370			12.31		
54	726, 703, 698	704, 708, 716	600, 602, 599	690, 698, 689	601, 592, 607	939			Test; AB MESF ratio ≥1.2 weak positive ≥1.5 positive	Median Channel Shift	
58	NT	NT	NT	NT	NT	NT				Log Median	
62	19.55	10.5	6.67	21.55	2.53	49			RMF >3	Median Log Channel	