

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B10/2017 (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 12th September 2017

HLA PHENOTYPE OF BLOOD DONOR: HLA-A11, A26; B35, B62; Cw4 Cw-; DR4, DR-; DQ7, DQ-

Summary of Results												
T-cells					B-cells							
Total tested	19	20	20	21	17	17	18	16				
Positive	10	6	1	1	10	17	11	5				
Negative	9	14	19	20	7	0	7	11				
NT/Equivocal	3	2	2	1	5	5	4	6				
% Positive	52.6%	30.0%	5.0%	4.8%	58.8%	100.0%	61.1%	31.3%				
% Negative	47.4%	70.0%	95.0%	95.2%	41.2%	0.0%	38.9%	68.8%				
Consensus	Not Assessed	Not Assessed	Negative	Negative	Not Assessed	Positive	Not Assessed	Not Assessed				
HLA Antibody Specificity (Defined By CDC)	Cw9 Cw10	DR15	B44	A10	Cw9 Cw10	DR15	B44	A10				
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	Equivocal	Negative	Negative	Negative	NT	NT	NT	NT	13-Sep	13-Sep	T cell Serum 1 - poor reproducibility of replicates and was greater than trimmed mean	
11	Positive	Equivocal	Equivocal	Negative	Equivocal	Positive	Positive	Negative	13-Sep	14-Sep		
14	Negative	Positive	Negative	Negative	Positive	Positive	Positive	Negative	14-Sep	14-Sep		
15	Negative	Positive	Negative	Negative	Negative	Positive	Negative	Negative	13-Sep	13-Sep		
19	Positive	Negative	Negative	Negative	Positive	Positive	Positive	Negative	13-Sep	14-Sep		
20	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Positive	13-Sep	14-Sep		
23	Positive	Negative	Negative	Negative	Positive	Positive	Negative	Negative	19-Sep	19-Sep		
24	Negative	Negative	Negative	Negative	Negative	Positive	Positive	Negative	13-Sep	14-Sep	B cell positive cut off reduced from 2 x negative to 1.5 x negative as the weak positive failed	
25	Positive	Positive	Negative	Negative	Positive	Positive	Positive	Equivocal	13-Sep	13-Sep		
28	Equivocal	Negative	Negative	Negative	Negative	Positive	Negative	Negative	13-Sep	13-Sep		
34	Negative	Negative	Negative	Negative	Negative	Positive	Negative	Negative	13-Sep	13-Sep		
35	Negative	Negative	Negative	Negative	NT	NT	NT	NT	13-Sep	14-Sep		
38	Positive	Positive	Negative	Negative	Negative	Equivocal	Negative	Negative	13-Sep	13-Sep	B cell linear channel shift 30-40 = equivocal	
39	Positive	Negative	Negative	Negative	Positive	Positive	Positive	Positive	18-Sep	13-Sep		
41	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	13-Sep	13-Sep		
42	Positive	Negative	Negative	Negative	Positive	Positive	Positive	Equivocal	13-Sep	14-Sep		
45	Negative	Negative	Negative	Negative	NT	NT	NT	NT	13-Sep	14-Sep		
48	Negative	Negative	Negative	Negative	Positive	Positive	Positive	Positive	13-Sep	13-Sep		
51	NT	NT	NT	NT	NT	NT	NT	NT	13-Sep	NT	NT as flow cytometer was broken. Discussed with Deb	
54	Negative	Negative	Negative	Negative	Negative	Positive	Negative	Negative	13-Sep	14-Sep		
58	Negative	Negative	Negative	Negative	Negative	Positive	Negative	Negative	13-Sep	13-Sep		
62	Positive	Negative	Negative	Negative	Positive	Positive	Positive	Positive	13-Sep	14-Sep		

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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	1.52	0.60	0.64	0.68	1.23	21.20			>1.5 x trimmed mean	Median x (log)	95
11	222			152.5	162, 141, 163, 151	201, 379			1.2 RMF	Median Log Fluorescence	
14	686	774	578.5	504.5	511	16122			1.5 x mean NEG	Median Log Channel	
15	2505	270	174.8	154.5	174.5	7602			RMF >1.5	Median	
19	0.295	0.204	0.182	0.18	0.195	6.65				Log Median X	
20	0.673	0.511	0.424	0.368	0.35	1.435			40 LCS	Median Channel Fluorescence	90
23	10.19	6.12	6.65	6.2	3.96	31.34			3SD	Median Channel Fluorescence	
24	105	78	82	71	96	153, 602			1.5 x negative	MFCN	90
25	84	73	55	45	48	3403			RMF >1.2	Median Log Channel	
28	101	63	60	36	49	709			Ratio pos/neg above 1.5	Mean Fluorescence Intensity	
34	16.6	14.7	13.4	12.27	18.23	126			2SD	Median FLI	95
35	2.45	1.42	1.43	1.7	2.23	2.63			3.78 (+3SD)	Mean Fluorescence	
38	54.1	103.2	2.6	4.9	0	545.2			33	Linear Channel Shift	90
39	0.17	0.12	0.12	0.11	0.11	1.16			>1.5 RMF	Median Log Fluorescence	
41	905	1471	517	540	187	17467			RMF >1.6	Median	99
42	1.31	1.04	0.96	0.89	1	78.69			>1.3	RMF	
45	244	253	227	217	252	596			40 channel shift (284)	Median Channel Value	
48	0.66	0.67	0.59	0.57	0.57	7.89			>1.3	Median	
51											
54	278, 269	237, 231	237, 240	218, 185	240, 253, 236, 233, 228	800			Test: Neg MESF ratio ≥pos	Median Channel Shift	
58	267	243	223	200	224	1227			1.5 x negative mean	Log Median	
62	0.61	0.41	0.44	0.39	0.382	1.67			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										Median x (log)	95
11		5999	2778	2154.5	1480, 1657, 2017, 1250	6925, 12263			1.5 RMF	Median Log Fluorescence	
14	2113.5	4119	2080	1785	1292.5	22251			1.5 x mean NEG	Median Log Channel	
15	1591	8183.5	1949.5	1562	1417	23176.5			RMF >1.5	Median	
19	4.186	10.343	5.509	4.142	2.660	34.798				Log Median X	
20	5.726	41.855	5.794	4.361	1.945	4.902			40 LCS	Median Channel Fluorescence	90
23	11.05	46.9	9	5.58	6.02	98.22			2SD	Median Channel Fluorescence	
24	246	1815	491	235	217	193, 1283			1.5 x negative	MFCN	90
25	670	2488	911	553	416	10714			RMF >1.3	Median Log Channel	
28	131	304	103	53	68	939			Ratio pos/neg above 1.9	Mean Fluorescence Intensity	
34	28.95	45.27	29.27	30.33	31.06	128			2SD	Median FLI	95
35										Mean Fluorescence	
38	-4.3	33.9	-18.5	12.9	0	298.3			40 linear channel shift	Linear Channel Shift	90
39	0.88	5.34	0.76	0.67	0.31	5.74			>2.0 RMF	Median Log Fluorescence	
41	1612	5563	1507	1327	696	26386			RMF >1.6	Median	99
42	1.82	4.14	1.64	1.34	1	42.2			>1.5	RMF	
45										Median Channel Value	
48	1.98	6.7	2.41	1.6	0.91	15.92			>1.3	Median	
51											
54	573, 564	698, 697	569, 565	574, 576	565, 568, 571	855			Test: Neg MESF ratio $\geq 1.2 = \text{pos}$	Median Channel Shift	
58	1408	2785	1543	1149	1211	4783			1.5 x negative mean	Log Median	
62	5.52	17.9	6.22	4.71	1.15	43.5			RMF >3	Median Log Channel	