

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B07/2016 (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 12TH JULY

HLA PHENOTYPE OF BLOOD DONOR: HLA-A1, A29; B51, B62; Cw4, Cw15; DR1, DR9; DQ5, DQ9

Summary of Results											
T-cells					B-cells						
Total tested	23	22	18	23	19	18	15	17			
Positive	23	22	17	0	19	17	8	1			
Negative	0	0	1	23	0	1	7	16			
NT/Equivocal	0	1	5	0	1	2	5	3			
% Positive	100.0%	100.0%	94.4%	0.0%	100.0%	94.4%	53.3%	5.9%			
% Negative	0.0%	0.0%	5.6%	100.0%	0.0%	5.6%	46.7%	94.1%			
Consensus	Positive	Positive	Positive	Negative	Positive	Positive	Not Assessed	Negative			
HLA Antibody Specificity (Defined By CDC)	Cw5, DR4	B12	A1	B7,B27,B42,Cw1	Cw5, DR4	B12	A1	B7,B27,B42,Cw1			
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	Positive	Equivocal	Negative	Positive	Positive	Equivocal	Negative	13-Jul	14-Jul	
11	Positive	Positive	Equivocal	Negative	Positive	Positive	Equivocal	Negative	14-Jul	14-Jul	
12	Positive	Positive	Positive	Negative	Positive	Positive	Positive	Negative	13-Jul	13-Jul	
14	Positive	Positive	Positive	Negative	Positive	Positive	Negative	Negative	13-Jul	14-Jul	
15	Positive	Positive	Positive	Negative	Positive	Positive	Negative	Negative	13-Jul	13-Jul	
19	Positive	Positive	Positive	Negative	Positive	Positive	Negative	Negative	13-Jul	14-Jul	
20	Positive	Positive	Positive	Negative	Positive	Positive	Positive	Positive	13-Jul	14-Jul	
23	Positive	Positive	Negative	Negative	Positive	Positive	Negative	Negative	13-Jul	13-Jul	
24	Positive	Positive	Positive	Negative	Positive	Positive	Positive	Negative	13-Jul	14-Jul	Serum 3: weak positive B cell with ratio 1.6 (MFI 1229)
25	Positive	Positive	Positive	Negative	Positive	Positive	Positive	Negative	13-Jul	14-Jul	
28	Positive	Equivocal	Equivocal	Negative	NT	NT	NT	NT	14-Jul	14-Jul	B cell Neg control failed quality control, therefore unreportable
34	Positive	Positive	Equivocal	Negative	Positive	Positive	Equivocal	Negative	14-Jul	14-Jul	
35	Positive	Positive	Positive	Negative	Positive	Negative	Negative	Negative	12-Jul	13-Jul	
38	Positive	Positive	Positive	Negative	Positive	Negative	Negative	Negative	13-Jul	13-Jul	
39	Positive	Positive	Positive	Negative	Positive	Positive	Positive	Negative	13-Jul	13-Jul	
41	Positive	Positive	Positive	Negative	Positive	Positive	Negative	Negative	13-Jul	13-Jul	
42	Positive	Positive	Positive	Negative	Positive	Positive	Positive	Negative	13-Jul	14-Jul	
45	Positive	Positive	Positive	Negative	Positive	Positive	Positive	Negative	13-Jul	14-Jul	
48	Positive	Positive	Positive	Negative	Positive	Positive	Positive	Negative	13-Jul	13-Jul	
51	Positive	Positive	Positive	Negative	Positive	Positive	Equivocal	Equivocal	13-Jul	15-Jul	Number and quality of B cells very poor. In clinical situation would want to repeat with fresh cell preparation
54	Positive	Positive	Positive	Negative	Positive	Equivocal	Negative	Negative	13-Jul	14-Jul	
58	Positive	Positive	Equivocal	Negative	Positive	Positive	Equivocal	Equivocal	13-Jul	13-Jul	
62	Positive	Positive	Positive	Negative	Positive	Positive	Positive	Negative	13-Jul	13-Jul	

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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	13.4	4.5	-	1.2	1.80	7.0			>1.5 x trimmed mean	Median x (log)	95
11	385	136	-	53.5	53, 45, 47, 48	78, 101			54.14 (Mean + 2SD)	Median log fluorescence	
12	839	237	246	119	108	3775			Mean channel shift >50	Mean channel fluorescence (MCF)	NT
14	2399.5	949	934	526.5	457	3392			1.5 x mean Neg	Median log channel	
15	2089.5	661	684.5	235.5	209	17724			RMF >1.5	Median RMF	
19	2.056	0.84	0.466	0.215	0.216	3.238				Log median x	
20	3.415	1.117	1.089	0.441	0.397	1.148			40 LCS	Median channel fluorescence	90
23	22.77	8.13	5.84	3.95	4.8	50.4			+3 SD	Median channel fluorescence	
24	1004	448	223	129	132		6665	595	1.5 x negative	MFCN	95
25	666	206	166	69	62	1608			RMF >1.3	Median log channel	
28	329	154	147	87	72	1383			≥1.6 - 3 equiv.	Median fluorescence intensity	
	4.6	2.1	2	1.2					>3.1 Pos		
34	14.93	6.62	-	3.85	4.42	33.6			6.09	Median FL1	90
35	7.55	4.62	2.45	1.82	1.67	5.91			2.09 3SD + mean negative control	Median log channel	90
38	296	149	133	32	0	211			46	Linear channel shift	
39	1.12	0.36	1.59	0.14	0.15	5.29			>1.5 RMF	Median log fluorescence	NT
41	1135	502	419	189	203	13116			RMF ≥1.5	Median log channel	95
42	661	339	217	146	139		11173	313	Rmf ratio >1.3	Median log channel	95
45	422	311	329	239	228	662			40 channel shift (268)	Median channel value	
48	2.54	1	0.93	0.58	0.54	4.71			>1.3 RMF	Median log channel	
51	29.08	11.99	7.57	4.14	3.24	74.99			5.74		95
54	526, 521	381	376, 380	216, 232	226, 255, 227, 242, 237	785			MESF test: neg ratio ≥1.2	Median channel shifts	NT
58	5.8	2.45	1.66	1.43	1.22	4.9			1.68	Log median	
62	2.5	1.4	0.8	0.4	0.3	2.1			>1.5	Median log channel	95

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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 (%)
11	1586	1494	-	817	539, 596, 743, 589	3125, 5447			986.8 (1.6 RMF)	Median log fluorescence	
12	1957	1158	1210	656	573	9641			Mean channel shift >50	Mean channel fluorescence (MCF)	NT
14	6635	5631	2827.5	2556.5	3550.5	13150.5			1.5 x mean Neg	Median log channel	
15	5304	4231	3249	3034	2310	35670			RMF >1.5	Median RMF	
19	10.808	10.244	6.896	6.084	5.066		54.07	19.923		Log median x	
20	18.363	12.495	9.634	7.628	4.459	9.666			40 LCS	Median channel fluorescence	90
23	23.23	21.77	15.37	12.57	13.5	159.6			+2SD	Median channel fluorescence	
24	2950	2550	1229	900	750		17887	1839	2 x negative	MFCN	95
25	2102	1564	1031	645	867	7784			RMF >1.3	Median log channel	
28	NT	NT	NT	NT	NT	NT	NT	NT	≥ 2.0 - 3.5 equiv.	Median fluorescence intensity	
	NT	NT	NT	NT	NT	NT	NT	NT	≥ 3.6 Pos		
34	50.35	58.75	-	30.85	30.11	205			33.93	Median FL1	90
38	93	22	15	2	0	154			63	Linear channel shift	
39	3.36	2.94	1.62	1.33	0.74	11.7			>2.0 RMF	Median log fluorescence	NT
41	2785	1638	1225	1241	917	22153			RMF ≥1.5	Median log channel	95
42	1693	1583	584	532	856		39914	2119	RMF ratio >1.5	Median log channel	95
48	6.13	5.37	3.37	2.53	2.855	13.48			>1.3 RMF	Median log channel	
51	33.51	19.55	12.86	14.27	8.22	66.08			14.72		95
54	641, 648, 641	604, 604, 608	589, 582, 575	557, 569, 573	550, 565, 553, 545, 555, 552	900			MESF test:neg ratio ≥1.2	Median channel shifts	NT
58	16.2	12.6	6.4	9.8	2.96	49.9			5.4	Log median	
62	13.4	11.90	7.50	4.90	3.00	45.4			>2.5	Median log channel	95