

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B09/2017 (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 12th September 2017

HLA PHENOTYPE OF BLOOD DONOR: HLA-A2, A11; B35, B57; Cw4, Cw6; DR4, DR7; DQ8, DQ9

Summary of Results											
T-cells					B-cells						
Total tested	20	20	21	21	16	15	17	18			
Positive	0	0	0	0	5	9	7	17			
Negative	20	20	21	21	11	6	10	1			
NT/Equivocal	2	2	1	1	6	7	5	4			
% Positive	0.0%	0.0%	0.0%	0.0%	31.3%	60.0%	41.2%	94.4%			
% Negative	100.0%	100.0%	100.0%	100.0%	68.8%	40.0%	58.8%	5.6%			
<b>Consensus</b>	<b>Negative</b>	<b>Negative</b>	<b>Negative</b>	<b>Negative</b>	<b>Not Assessed</b>	<b>Not Assessed</b>	<b>Not Assessed</b>	<b>Positive</b>			
HLA Antibody Specificity (Defined By CDC)	A10	B44	Cw9 Cw10	DR15	A10	B44	Cw9 Cw10	DR15			
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	Negative	Negative	Negative	Negative	NT	NT	NT	NT	13-Sep	13-Sep	Serum 3 B cell crossmatch result invalid due to duplicates. Would not be reported in a clinical situation
11	Negative	Negative	Negative	Negative	Negative	Equivocal	Negative	Positive	13-Sep	14-Sep	
14	Negative	Negative	Negative	Negative	Negative	Positive	Negative	Positive	14-Sep	14-Sep	
15	Negative	Negative	Negative	Negative	Negative	Positive	Positive	Positive	13-Sep	13-Sep	
19	Negative	Negative	Negative	Negative	Negative	Negative	Equivocal	Positive	13-Sep	14-Sep	
20	Negative	Negative	Negative	Negative	Positive	Positive	Positive	Positive	13-Sep	14-Sep	
23	Negative	Negative	Negative	Negative	Negative	Negative	Positive	Positive	19-Sep	19-Sep	
24	Negative	Negative	Negative	Negative	Positive	Positive	Negative	Positive	13-Sep	14-Sep	
25	Negative	Negative	Negative	Negative	Equivocal	Positive	Positive	Positive	13-Sep	13-Sep	
28	Equivocal	Equivocal	Negative	Negative	Equivocal	Equivocal	Negative	Positive	13-Sep	13-Sep	
34	Negative	Negative	Negative	Negative	Positive	Positive	Negative	Positive	13-Sep	13-Sep	
35	Negative	Negative	Negative	Negative	NT	NT	NT	NT	13-Sep	14-Sep	
38	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	13-Sep	13-Sep	
39	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	18-Sep	13-Sep	
41	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	13-Sep	13-Sep	
42	Negative	Negative	Negative	Negative	Negative	Positive	Positive	Positive	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	
54	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	13-Sep	14-Sep	
58	Negative	Negative	Negative	Negative	Negative	Equivocal	Negative	Positive	13-Sep	13-Sep	
62	Negative	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	1.26	0.89	1.26	1.05	1.89	19.9			>1.5 x trimmed mean	Median x (log)	95
11	131	147.5	133.5	152	137,133,151,141	421,1326			1.2 RMF	Median Log Fluorescence	
14	602	627.5	591.5	508	536.5	11477.5			1.5 x mean NEG	Median Log Channel	
15	179.5	202.5	189	188	201	126823			RMF >1.5	Median	
19	0.185	0.215	0.209	0.190	0.233	10.906				Log Median X	
20	0.386	0.433	0.411	0.392	0.361	1.598			40 LCS	Median Channel Fluorescence	90
23			2.84	2.92	3.66	2.99	3.06	28.3	3SD	Median Channel Fluorescence	
24	87	87	84	84	82	330, 412			1.5 x negative	MFCN	90
25	54	59	55	54	56	3218			RMF >1.2	Median Log Channel	
28	96	99	70	69	61	968			Ratio pos/neg >1.5	Mean Fluorescence Intensity	
34	17.83	16.47	15.67	13.70	21.34	127			2SD	Median FLI	95
35	2.31	2.30	2.70	2.37	2.63	10.85			4.62 (+3SD)	Mean Fluorescence	90
38	-7.1	13.7	10	-1.1	0	538.5			33	Linear Channel Shift	90
39	0.11	0.12	0.12	0.11	0.11	3.73			>1.5 RMF	Median Log Fluorescence	
41	190	205	195	182	204	15595			RMF >1.6	Median	98
42	0.96	1.04	0.98	0.96	1	64.18			>1.3	RMF	
45	207	219	159	171	243	596			40 channel shift (283)	Median Channel Value	
48	0.72	0.71	0.7	0.68	0.7	8.42			>1.3	Median	
51											
54	307, 303	319, 295	272, 364	318, 375	328, 315, 331, 337, 334, 325	898			Neg MESF ratio $\geq 1.2 = \text{pos}$	Median Channel Shift	
58	172	184	180	181	191	693			1.5 x neg mean	Log Median	
62	0.46	0.48	0.46	0.44	0.472	18.05			RMF >1.5	Median Log Channel	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	1376.5		2411	4325	2396,2246,1994	6753,14893			1.5 RMF	Median x (log)	95
11										Median Log Fluorescence	
14	2338.5	2665.5	2490.5	5700	1756.5	18683			1.5 x mean NEG	Median Log Channel	
15	1559.5	2026	2050	5660	1317.5	31345.5			RMF >1.5	Median	
19	5.032	6.651	3.782	11.772	3.876	31.520				Log Median X	
20	4.869	7.226	5.639	13.8	2.248	6.183			40 LCS	Median Channel Fluorescence	90
23	6.13	8.34	10.62	18.11	6.61	109.4			2SD	Median Channel Fluorescence	
24	431	511	322	1046	205	627, 1423			2 x negative	MFCN	90
25	652	911	733	1875	472	8836			RMF >1.3	Median Log Channel	
28	212	252	169	517	89	1251			Ratio pos/neg >1.9	Mean Fluorescence Intensity	
34	41.33	61.52	30.63	51.57	34.42	119			2SD	Median FLI	95
35										Mean Fluorescence	90
38	5.4	7.3	-1.5	10.3	0	298.9			40 Linear Channel Shift	Linear Channel Shift	90
39	0.86	0.97	0.98	2.23	0.48	9.79			>2.0 RMF	Median Log Fluorescence	
41	1064	1196	1009	2420	810	25783			RMF >1.6	Median	98
42	1.26	2.30	1.84	3.54	1	40.55			>1.5	RMF	
45										Median Channel Value	
48	1.96	2.77	2.08	3.2	1.02	15.2			>1.3	Median	
51											
54	588, 615, 614	633, 624, 627	598, 602, 631	687, 683, 684	593, 591, 577, 606, 615	883			Neg MESF ratio ≥1.2 = positive	Median Channel Shift	
58	1348	1941	1606	5046	1144	8394			1.5 x neg mean	Log Median	
62	5.31	7.18	5.89	15.55	1.38	114			RMF >3	Median Log Channel	90