

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B03/2018 UK (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 1ST MAY 2018

HLA PHENOTYPE OF BLOOD DONOR: HLA-A1, A11; B44, B56; Cw1, Cw4; DR4, DR13; DQ6, DQ8

			Summary of Results										
			T-cells				B-cells						
Total tested			22	22	22	22	18	18	18	16			
Positive			1	19	13	21	4	6	9	13			
Negative			21	3	9	0	14	12	9	3			
Equivocal			0	0	0	1	0	0	0	0			
NT			0	0	0	0	2	2	2	4			
% Positive			4.5%	86.4%	59.1%	95.5%	22.2%	33.3%	50.0%	81.3%			
% Negative			95.5%	13.6%	40.9%	0.0%	77.8%	66.7%	50.0%	18.8%			
% Equivocal			0.0%	0.0%	0.0%	4.5%	0.0%	0.0%	0.0%	0.0%			
Consensus			Negative	Positive	Not Assessed	Positive	Negative	Not Assessed	Not Assessed	Positive			
HLA Antibody Specificity (Defined By CDC)			DQ2	A11	B7	A1	DQ2	A11	B7	A1			
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		Negative	Positive	Positive	Positive					02-May	03-May	
11	YES	YES	Negative	Positive	Positive	Positive	Negative	Negative	Negative	NT	02-May	03-May	Values of duplicates outside of acceptable limits.
14	YES	YES	Negative	Positive	Negative	Positive	Negative	Negative	Negative	Positive	02-May	02-May	
15	YES	YES	Negative	Positive	Negative	Positive	Negative	Negative	Negative	Negative	03-May	03-May	Poor cell viability
19	YES	YES	Negative	Positive	Positive	Positive	Negative	Negative	Negative	Positive	02-May	03-May	
20	YES	YES	Negative	Positive	Positive	Positive	Negative	Negative	Positive	Positive	02-May	03-May	
23	YES	YES	Negative	Positive	Negative	Positive	Negative	Positive	Positive	Positive	02-May	02-May	
24	YES	YES	Negative	Negative	Negative	Positive	Negative	Negative	Negative	Positive	02-May	03-May	
25	YES	YES	Positive	Positive	Positive	Positive	Positive	Negative	Positive	Positive	02-May	02-May	
28	YES	YES	Negative	Negative	Negative	Equivocal	Negative	Negative	Negative	Negative	02-May	02-May	
34	YES	YES	Negative	Positive	Positive	Positive	Positive	Positive	Positive	Positive	02-May	02-May	
35	YES		Negative	Positive	Positive	Positive					02-May	03-May	
38	YES	YES	Negative	Positive	Positive	Positive	Negative	Negative	Negative	Positive	02-May	02-May	
39	YES	YES	Negative	Negative	Negative	Positive	Negative	Negative	Negative	Negative	02-May	02-May	
41	YES	YES	Negative	Positive	Positive	Positive	Negative	Positive	Positive	Positive	02-May	02-May	
42	YES	YES	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	03-May	03-May	
45	YES	YES	Negative	Positive	Negative	Positive	NT	NT	NT	NT	02-May	03-May	Assay failed to pass the acceptance criteria
48	YES	YES	Negative	Positive	Positive	Positive	Positive	Positive	Positive	Positive	02-May	02-May	
51	YES	YES	Negative	Positive	Positive	Positive	Positive	Positive	Positive	Positive	02-May	03-May	There were very few B cells - in a clinical situation would repeat.
54	YES	YES	Negative	Positive	Positive	Positive	NT	NT	NT	NT	02-May	03-May	
58	YES	YES	Negative	Positive	Negative	Positive	Negative	Negative	Positive	Positive	02-May	02-May	B cell assay is invalid
62	YES	YES	Negative	Positive	Positive	Positive	Negative	Negative	Positive	NT	02-May	02-May	

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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	1.06	3.27	2.88	2.38	1.18	19.70			>1.5 Trimmed mean	Median x (log)	90
11	137, 130	314, 304	212, 224	443, 337	118, 118, 137, 121	209, 10501			1.2 x RMF of negatives	Median Log Channel	
14	633	800	721	888	507	6826			1.5 x mean negatives	Median Fluorescence	
15	273	501	390.5	613	300	9297			RMF >1.5	Median	
19	0.226	0.494	0.377	0.789	0.229	2.96			-	Log Median x	
20	0.36	0.848	0.594	1.091	0.326	1.177			40 Linear Channel Shift	Median Channel Fluorescence	90
23	13.7	15.68	11.1	23.56	12.7	81.6			+3SD	Median Channel Fluorescence	
24	329	308	342	439	202	NIBSC 704 local 7989			Ratio >1.5	MFCN	95
25	154	311	203	399	118	6210			RMF>1.2	Median Log Channel	
28	108 (1.5)	112 (1.5)	108 (1.5)	123 (1.7)	74	683			Pos >3.1 Equiv 1.6-3.0	MFI	99
34	5.93	7.41	6.49	8.62	5.45	48.15			2SD (6.39)	Median FL1	0
35	1.63	5.57	3.9	9.18	1.27	85.7			MEAN +3SD	Median Log Channel	90
38	3.5	63	56.1	157.1	0	475.5			33 Linear Channel Shift	Linear Channel Shift	90
39	0.16	0.23	0.19	0.27	0.15	0.85			1.5RMF	Median Log Fluorescence	
41	174	437	282	603	152	12538			RMF >1.6	Median Fluorescence	95
42	1.02	2.4	1.18	1.58	1	65.59			>1.3	RMF	
45	200	247	239	268	207	598			40 Channel Shift (247)	Median Channel Value	
48	0.68	1.38	0.98	1.61	0.62	9.24			1.3 rRMF	Median	N/A
51	5.6	11.1	7.6	13.82	4.2	100			6.7	-	
54	290, 302	397, 394	382, 389	371, 381	297	862			Test/neg MESF ratio ≥1.2 = weak pos ≥1.5 = pos	Median Channel Shift	0
58	204	380	265	515	179	2981			1.5 x Neg mean	Median Fluorescence	
62	0.415	0.887	0.622	0.88	0.368	2.75			RMF>1.5	Log Median Fluorescence Intensity	99

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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	Median x (log)	90
11	3706, 3301	3844, 3174	2717, 3445	NT	2745, 2714, 3407, 2957	10286, 47205			1.5x RMF of Negatives	Median Log Channel	
14	2677.00	2354.00	2611.00	3401.00	2191.00	32075.00			1.5x Mean Negative	Median Fluorescence	
15	1963.00	1828.00	1942.00	2786.50	1940.00	22274.00			RMF >1.5	Median	
19	4.82	5.12	5.51	7.22	3.92	28.81				Log Median x	
20	2.30	3.43	3.75	7.05	2.55	5.87			40 Linear Channel Shift	Median Channel Fluorescence	90
23	30.10	34.62	36.46	39.30	25.24	173.00			+2SD	Median Channel Fluorescence	
24	598.00	375.00	852.00	1165.00	617.00	NIBSC 2052 local 24559			Ratio >2.0	MFCN	95
25	2250.00	1329.00	1902.00	2023.00	1202.00	15706.00			RMF>1.3	Median Log Channel	
28	201 (1.4)	154 (1.1)	176 (1.3)	249 (1.8)	139.00	863.00			Pos > 3.6 Equiv 2.0-3.5	Median Fluorescence Intensity	99
34	16.80	14.60	16.10	20.20	11.36	101.00			2SD (14.24)	Median FL1	0
35	NT	NT	NT	NT	NT	NT			NT	Median Log Channel	90
38	19.60	24.50	24.50	69.60	0.00	241.70			40 Linear Channel Shift	Linear Channel Shift	90
39	0.84	0.76	0.97	1.17	0.67	7.28			>2.0 RMF	Median Log Fluorescence	
41	1342.00	1432.00	1458.00	2661.00	894.00	18031.00			RMF >1.6	Median Fluorescence	95
42	0.99	2.03	1.20	2.15	1.00	89.05			-	RMF	
45	503	493	503	522	508	787			40 Linear Channel Shift	Median Channel Value	
48	5.19	4.46	4.42	7.51	2.08	33.91			>1.3 RMF	Median	
51	20.83	19.55	15.7	38.8	5.88	149			12.4		
54	639, 657	647, 653	675, 683	683, 690	650	935			Test/Neg MESF Ratio	Median Channel Shift	
58	1207	1241	1602	2326	539	8177			2.5 Neg Mean	Median Fluorescence	
62	4.38	3.41	6.3		1.757	51.6			>3.0	Log Median Fluorescence Intensity	99