

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B09/2018 OS WB (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 11TH DECEMBER 2018

HLA PHENOTYPE OF BLOOD DONOR: HLA-A2, A68; B35, B44; Cw4, Cw5; DR13, DR-; DQ6, DQ-

		Summary of Results										
		T-cells				B-cells						
Total tested		17	17	17	16	16	16	16	15			
Positive		12	4	1	13	15	3	1	11			
Negative		3	13	16	3	1	13	15	3			
Equivocal		2	0	0	0	0	0	0	1			
NT		4	4	4	5	4	4	4	5			
% Positive		70.6%	23.5%	5.9%	81.3%	93.8%	18.8%	6.3%	73.3%			
% Negative		17.6%	76.5%	94.1%	18.8%	6.3%	81.3%	93.8%	20.0%			
% Equivocal		11.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.7%			
Consensus		Not Assessed	Negative	Negative	Positive	Positive	Negative	Negative	Not Assessed			
HLA Antibody Specificity (Defined By CDC)		Cw5 Cw6	A1 B8 DR4+	A10 A28 B8 DR4+	A3 A19 A24 B12+ DR4+	Cw5 Cw6	A1 B8 DR4+	A10 A28 B8 DR4+	A3 A19 A24 B12+ DR4+			
		T-cells				B-cells						
Lab No.	Assessment	Serum 1	Serum 2	Serum 3	Serum 4	Serum 1	Serum 2	Serum 3	Serum 4	Date Received	Date Tested	Comments
	T-cells B-cells											
101	YES YES	Negative	Negative	Negative	<b>Negative</b>	Positive	Negative	Negative	Negative	12-Dec	13-Dec	
114	YES YES	Positive	<b>Positive</b>	Negative	Positive	Positive	<b>Positive</b>	Negative	Positive	12-Dec	13-Dec	
119	YES YES	Positive	Negative	Negative	NT	Positive	Negative	Negative	NT	12-Dec	12-Dec	Many number of red cells and resistant to lysis red cells
126	YES YES	NT	NT	NT	NT	NT	NT	NT	NT	12-Dec	14-Dec	Samples not tested due to sample mix-up (human error)
136	YES	Positive	Negative	Negative	Positive					12-Dec	12-Dec	
142	YES YES	Equivocal	Negative	Negative	Positive	Positive	Negative	Negative	Positive	12-Dec	13-Dec	
176	YES YES	Equivocal	Negative	Negative	Positive	Positive	Negative	Negative	Positive	12-Dec	13-Dec	
185	YES YES	Positive	Negative	Negative	Positive	Positive	<b>Positive</b>	Negative	Positive	12-Dec	14-Dec	
186	YES YES	Positive	<b>Positive</b>	Negative	Positive	Positive	<b>Positive</b>	Negative	Positive	12-Dec	12-Dec	High background on B cells.
204	YES YES	Positive	Negative	Negative	Positive	Positive	<b>Positive</b>	Negative	Positive	12-Dec	12-Dec	
206	YES YES	Positive	Negative	Negative	Positive	Positive	Negative	Negative	Positive	12-Dec	13-Dec	
227	YES YES	NT	NT	NT	NT	NT	NT	NT	NT	12-Dec	NT	Method not routinely used
230	YES YES	Negative	Negative	Negative	<b>Negative</b>	<b>Negative</b>	Negative	Negative	Negative	13-Dec	14-Dec	
245	YES YES	Positive	Negative	Negative	Positive	Positive	Negative	Negative	Positive	12-Dec	13-Dec	
284	YES YES	Positive	Negative	Negative	Positive	Positive	Negative	Negative	Positive	12-Dec	13-Dec	
311	YES YES	NT	NT	NT	NT	NT	NT	NT	NT	12-Dec	NT	
315	YES YES	Positive	<b>Positive</b>	<b>Positive</b>	Positive	Positive	Negative	Negative	Equivocal	12-Dec	18-Dec	
358	YES YES	Positive	Negative	Negative	Positive	Positive	Negative	Negative	Positive	12-Dec		
374	YES YES	Negative	Negative	Negative	<b>Negative</b>	Positive	Negative	Negative	Negative	20-Dec	20-Dec	
380	YES YES	Positive	<b>Positive</b>	Negative	Positive	Positive	Negative	<b>Positive</b>	Positive	14-Dec	17-Dec	
401		NT	NT	NT	NT	NT	NT	NT	NT			Reagent shortage

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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 (%)
101	0.400	0.35	0.320	0.390	0.39	1.20			2SD	-	-
114	346	246	220	430	186	493			50 linear channel	Median channels	93
119	0.986	0.267	0.225	NT	0.179	5.6			Ratio, Pos >1.289	MnIX	75
126	NT	NT	NT	NT	NT	NT	NT	NT	B-line (1.289-1.45)	Median Channel Shift	-
136	10.8	4.3	2.6	23.5	3.1	118			NR>200	Geomean channel	98
142	234	136	139	312	120	4440			133	Median log channel	95
176	0.35	0.13	0.06	0.6	0	0.84			0.4	MFI shift	-
185	0.56	0.42	0.46	0.69	0.41	1.75			2SD	Median log channel	-
186	1.8	1	0.9	3.8	0.6	34			1.5x the local NC	MFI log channel	99
204	1.03	0.301	0.296	2.16	0.32	6.3			0.479 = 1.5 x loc neg control	Mean log channel	-
206	1.41	0.76	0.65	3.86	0.51	2.42			Ratio MFI serum / MFI NC >1.6	MFI	90
227	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT
230	8.20 MFI	8.35 MFI	9.06 MFI	11.86 MFI	8.13 MFI	55.23			30 MFI	MFI	90
245	6	3	2	17	1	40			7 linear channel shift	Linear channel shift	100
284	497	357	357	605	320		2397	438	sample serum/NC ratio > 1.2	Median log channel	-
311	NT	NT	NT	NT	NT	NT	NT	NT		NT	NT
315	6	2.6	1.7	12	1	48.4			2SD	Geometric mean / ratio	-
358	-	-	-	-	-	-	-	-	-	-	-
374	0	0	0	0	0	1			20%	FC500 BC	-
380	410	384	354	555	339	430			>40 Linear MCS	MCV linear	80
401											

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B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B09/2018 (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 11TH DECEMBER 2018

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 (%)
101	2.8	1.1	1.2	1.4	1.2	48.9			1.5SD	-	-
114	551	415	370	462	355	669			60 linear channel	Median channels	93
119	4.9	2.49	0.103	NT	1.85	5.72			Ratio, Pos >1.7	MnIX	75
									B-line (1.5-1.7)		
126	-	-	-	-	-	-	-	-	-	Median Channel Shift	-
142	1542	331	298	752	479	8400			630	Median log channel	95
176	0.46	0.01	-0.04	0.25	0	0.4			0.22	MFI shift	-
185	0.65	0.31	0.29	0.43	0.2	2.46			2SD	Median log channel	-
186	8.6	4.2	1.9	4.8	1.5	40			2x the local NC	MFI log channel	99
204	9.19	2.07	1.08	4.81	0.53	4.4			1.06 = 2x loc neg control	Mean log channel	-
206	7.86	0.87	1.48	4.66	0.9	6.32			Ratio MFI serum / MFI NC >1.8	MFI	90
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
230	4.41 MFI	2.89 MFI	2.46 MFI	4.00 MFI	3.19 MFI	152.61 MFI			30 MFI	MFI	90
245	38	9	5.5	25	4	110			15 linear channel shift	Linear channel shift	100
284	689	437	384	592	358		7082	568	sample serum/NC ratio > 1.2	Median log channel	-
311	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
315	3.4	1.5	0.7	2.4	1	20.8			2SD	Geometric mean / ratio	-
358	-	-	-	-	-	-	-	-	-	-	-
374	0.23	0	0	0	0	100			20	FC500 BC	-
380	684	399	428	580	384	651			>40 Linear MCS	MCV linear	80
401											