

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B04/2018 OS PC (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 01 MAY 2018

HLA PHENOTYPE OF BLOOD DONOR: HLA-A2, A24; B49, B51; Cw7, Cw-; DR11, DR-; DQ7, DQ-

Summary of Results												
T-cells				B-cells								
Total tested	43	43	43	42	39	39	40	38				
Positive	0	0	0	0	12	1	1	13				
Negative	43	43	43	42	25	38	39	20				
Equivocal	0	0	0	0	2	0	0	5				
NT	3	3	3	4	4	4	3	5				
% Positive	0.0%	0.0%	0.0%	0.0%	30.8%	2.6%	2.5%	34.2%				
% Negative	100.0%	100.0%	100.0%	100.0%	64.1%	97.4%	97.5%	52.6%				
% Equivocal	0.0%	0.0%	0.0%	0.0%	5.1%	0.0%	0.0%	13.2%				
<b>Consensus</b>	<b>Negative</b>	<b>Negative</b>	<b>Negative</b>	<b>Negative</b>	<b>Not Assessed</b>	<b>Negative</b>	<b>Negative</b>	<b>Not Assessed</b>				
HLA Antibody Specificity (Defined By CDC)	DQ2	A11	B7	A1	DQ2	A11	B7	A1				
T-cells				B-cells				Date Received	Date Tested	Comments		
Lab No.	Assessment	Serum 1	Serum 2	Serum 3	Serum 4	Serum 1	Serum 2	Serum 3	Serum 4			
112	YES YES	NT	NT	NT	NT	NT	NT	NT	NT	07-May	07-May	Sample 2B03-2018 Poor Viability for the test. Delayed delivery
115	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	02-May	-	-
117	YES YES	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	03-May	03-May	-
118	YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	02-May	02-May	The samples contained huge clumps and, therefore, cell numbers were extremely low.
119	YES YES	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	02-May	02-May	-
120	YES YES	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	02-May	02-May	Sincere apologize for the delay in responding to the Evaluation. This is due to only 6 working days between reception of the samples and Result deadline (11th May 2018).
122	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	02-May	03-May	Low B cell. Cells were clumped.
130	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	03-May	04-May	-
133	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	03-May	04-May	-
138	YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	02-May	02-May	-
139	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	-	-	-
143	YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	-	-	-
144	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	03-May	03-May	-
145	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	-	-	-
147	YES YES	Negative	Negative	Negative	Negative	Equivocal	Negative	Negative	Equivocal	02-May	03-May	We have received very weak cells that why any control of cross-matches could be realised.
149	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	02-May	03-May	-
154	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	02-May	02-May	-
157	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	02-May	02-May	-
159	YES YES	Negative	Negative	Negative	Negative	Equivocal	Negative	Negative	Equivocal	02-May	03-May	-
160	YES YES	Negative	Negative	Negative	Negative	NT	Negative	Negative	Positive	02-May	03-May	Sample discre[an]cy serum 1.
163	YES YES	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	02-May	03-May	-
167	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	02-May	03-May	-
169	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	02-May	03-May	-
176	YES YES	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	02-May	03-May	Sample contained large, macroscopic protein/cellular aggregates upon arrival. Filtration (100 microns) excluded aggregates and permitted normal analysis. Filtration is usually not necessary.,
189	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	02-May	11-May	-
190	YES YES	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	02-May	03-May	-
191	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	02-May	03-May	-
193	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	02-May	02-May	-
194	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Equivocal	02-May	02-May	Low number of cells.
195	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	04-May	04-May	We received samples with aggregated cells.
201	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	02-May	03-May	-
209	YES YES	Negative	Negative	Negative	Negative	NT	Negative	Negative	NT	02-May	03-May	Not enough 2B04 cells for serum 4 testing.
218	YES YES	Negative	Negative	Negative	Negative	Negative	Positive	Negative	Negative	04-May	04-May	-
220	YES YES	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	There was a delivery delay (arrival friday, may 4th, 1:30pm) and the viability was too low to perform the tests on monday
235	YES YES	Negative	Negative	Negative	Negative	Negative	NT	Negative	NT	02-May	02-May	Amount of cells were not enough for tests.
238	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Equivocal	02-May	04-May	-
240	YES YES	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Negative	03-May	03-May	-
246	YES YES	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	02-May	02-May	-
252	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	03-May	03-May	-
260	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	03-May	03-May	-
262	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Equivocal	02-May	04-May	2B04 S4 B cells: discrepancy between shift and positive cells.
271	YES YES	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	03-May	03-May	-
276	YES YES	Negative	Negative	Negative	Negative	Positive	Negative	Positive	Positive	02-May	04-May	-
293	YES YES	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	03-May	03-May	-
297	YES YES	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	02-May	03-May	-
351	YES YES	NT	NT	NT	NT	NT	NT	NT	NT	-	-	Delivery delayed.
392	YES YES									NT	NT	No results received

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DISPATCHED ON 01 MAY 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 (%)
112	NT	NT	NT	NT	NT	NT			NT	Median Log Channel	-
115	186	191	178	180	210	408			>40	Median Linear Channel Shift	-
117	5.66	5.58	5.71	5.91	5.03	76.6			Ratio (RMF) >1.3	Median Log Channel	95
118	216	229	210	188	211	746			277 (211+66)	Median Linear Channel MCI	90
119	0.156	0.169	0.167	0.162	0.156	0.283			Ratio Pos >1.285 (B.Line 1.285-1.45)	MnIX	88
120	1.09	1.1	1.07	1.15	51	6054.5			Ratio>1.6	Median	100
122	7.5	7	11	8	7	-	96	25	3SD	Geo Mean Linear Value	-
130	156	154	154	152	150	199			40	Channel	95
133	0.2	0.1	0.1	0.1	0.1	34			2SD	Median Fluorescence Intensity	100
138	0.11	0.08	0.06	0.11	0	0.97			0.2	-	-
139	0.25	0.24	0.64	0.32	0.3	28			>1.5 local neg control	MFI	80
143	0	0	0	0	2	319			40 Channel Shift	Mean Channel Shift	89.3
144	0.93	1	0.94	0.86	1555	6.3			1.6	Median/Ratio	-
145	1.1	0.919	1.12	1.19	1.03	29.3			2SD of the ratio	Median Log Channel	96
147	187	180	190	173	160	661			>40 linear channel shift	Linear channel	100
149	0.349	0.354	0.325	0.287	0.363	85			2SD	Median Log Channel	88
154	60	59	51	56	58	1703			Median >150% of negative control and shape of curve	Median Fluorescence	-
157	124	125	128	127	130	77739			158 (2SD)	Median Logarithmic Channel	97
159	163	164	160.5	164	160	463.5			40	Mean Linear Channel	95
160	7.2	8.1	7.9	8.8	6.9	162			>14.3 (negative +2SD)	Mean Linear Channel	-
163	1.1	1.1	1	1.5	1	27.7			2.3 (ratio above)	Geomean Linear Channel (serum/negative control)	97.2
167	150	138	142	161	155	11349			2SD	Median Log Channel	99
169	255	253	256	261	324	499			>=50 Channel	Median Channel	-
176	0.01	0	-0.01	0.01	0	0.84			0.4	MFI Shift	-
189	0.12	0.15	0.02	0.08	0.31	93.45			>5%	Percentage	90
190	44	44	44	46.33	44	377			Ratio >1.5	Median MFI	97
191	0.1	5.9	-5	23	0	309			>30	MFI	90
193	3.63	3.64	3.36	4.25	3.44	102			Negative control mean x2.4	Geometric mean linear channel	-
194	0.292	0.321	0.29	0.296	0.272	26.8			Ratio >1.5	Median MFI	-
195	254	255	259	265	264	696			Test/Negative Control >= 1.3	Median Log Channel	80
201	535	517	646	0.54	493	19.2			S/NK>= 2.0	X-Mean	98
209	231 (1.1)	231 (1.1)	219 (1.0)	NT	212	2154 (10.2)			Ratio >1.6	Geometric Mean Value	100
218	64.3	70.6	67.5	69	63.7	2585			1.2 x lowest negative (76.4)	MFI	-
220	NT	NT	NT	NT	NT	NT			NT	NT	NT
235	4.74	4.01	3.92	4	3.43	50.53			Above 2 median log channel from negative control sera indicates positive result	Median Log Channel	80
238	-	-	-	-	991	12448			MESF Serum / MESF Negative Control	MESF	-
240	12	12	12	11	12	580			1.2*NC	MFI	50
246	1.07	1.13	1.16	1.23	-	11.03			1.75	Median Log FI	78.8
252	1.4	1.2	1.38	1.1	193	567			Median Ratio +/- 2SD	Median Channel Ratio	75
260	4.51	5.63	7.86	3.67	4.97	99.23			>25% shift	% Channel Shift	-
262	1586	1757	1489	1680	1552	16900			2SD	Median Shift	74
271	113	116	108	122	126	367			64	Median Log Channel	92
276	202	191	277	190	241	7181			>1.25x neg ctrl	Median Fluorescence Intensity	95
293	3	3.11	3.19	3.13	2.69	142.02			10 Channel shift	Channel Shift	80
297	102	125	103	100	108	418			1.3 x Tneg (Grey Zone 1.3-1.8)	Median FI	-
351	NT	NT	NT	NT	NT	NT			NT	NT	NT
392											

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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 (%)
112	NT	NT	NT	NT	NT	NT			NT	Median Log Channel	-
115	482.00	373.00	384.00	475.00	414.00	714.00			>60	Median Linear Channel Shift	-
117	24.67	10.23	10.43	31.63	11.63	229.79			Ratio (RMF) >1.5	Median Log Channel	95
118	130.00	123.00	124.00	134.00	118.00	410.00			143.5 (118+25.5)	Median Linear Channel MCI	90
119	4.29	2.44	3.72	6.73	1.5	39.3			Ratio Pos >1.7 (B.Line 1.7-2.3)	MnIX	88
120	2.01	1.04	1.09	2.04	315.00	11175.50			Ratio >2.0	Median	100
122	98.50	35.00	69.00	134.00	54.00	-	253.00	119.00	3SD	Geo Mean Linear Value	-
130	410.00	292.00	344.00	395.00	311.00	564.00			80-100	Channel	95
133	1.40	0.20	0.30	1.10	0.50	220.40			2SD	Median Fluorescence Intensity	100
138	-	-	-	-	-	-			-	-	-
139	12.20	15.10	16.60	16.30	13.45	109.00			>2 local neg control	MFI	80
143	-	-	-	-	-	-			-	Mean Channel Shift	89.3
144	1.73	1.05	1.10	1.71	3232.00	8.09			2.6	Median/Ratio	-
145	3.60	1.96	2.71	3.30	3.03	12.10			2SD of the ratio	Median Log Channel	96
147	337.00	261.00	256.00	323.00	258.00	-			>60 linear channel shift	Linear channel	100
149	1.75	0.86	0.83	1.54	1.88	94.00			2SD	Median Log Channel	88
154	647.00	246.00	163.00	487.00	358.00	2777.00			Median is >200 % of negative control and shape of the cytogram	Median Fluorescence	-
157	143	98	125	153	126	10461			162 (2SD)	Median Logarithmic Channel	97
159	433.5	353	354.5	443.5	344	620.5			100	Mean Linear Channel	95
160	NT	56.8	76.6	122.5	32.9	473			>71.9 (Negative +2SD)	Mean Linear Channel	-
163	3.2	1.1	1	3.2	1	5.2			1.7 (Ratio above)	Geomean Linear Channel (serum/negative control)	97.2
167	1702	676	791	1717	1215	72597			2SD	Median Log Channel	99
169	431	319	340	418	448	689			>=80 Channel	Median Channel	-
176	0.71	0.01	0.04	0.65	0	0.94			0.22	MFI Shift	-
189	0.47	0.39	0.01	2.12	1.57	97.78			>8%	Percentage	90
190	244.33	85	87.67	287	96	1000			ratio >2.5	Median MFI	97
191	24	9.8	-10	159	0	366			>100	MFI	90
193	64.89	36.28	37.12	62.93	32.34	243.87			Negative Control Mean x2.3	Geometric mean linear channel	-
194	3.2	1.85	1.89	3.96	1.62	1.8			Ratio >4	Median MFI	-
195	323	256	281	344	283	2435			Test/Negative Control >= 1.6	Median Log Channel	80
201	3.26	1.57	3.13	4.23	1.59	62.6			S/NK >2.5	X-Mean	98
209	5042 (3.6)	1413 (1.0)	1436 (1.0)	NT	1420	5842			Ratio >1.7	Geometric Mean Value	100
218	565	747	569	684	712	4811			1.5 x 419	MFI	-
220	NT	NT	NT	NT	NT	NT			NT	NT	NT
235	13.1	-	4.57	-	3.75	121.88			Above 13 Median Log Channel from negative control sera indicates a positive result	Median Log Channel	80
238	-	-	-	-	-	-			-	MESF	-
240	1590	1090	1096	1090	1060	2500			1.4*NC	MFI	50
246	2.54	0.9	0.95	2.61	-	39.5			2.5	Median Log FI	78.8
252	1.40	1.18	1.26	1.28	133.00	4293.00			Median Ratio +/- 2SD	Median Channel Ratio	75
260	16.07	8.38	7.66	8.18	6.38	97.00			>25% Shift	% Channel Shift	-
262	3712.00	2639.00	2546.00	4269.00	2301.00	55907.00			2SD	Median Shift	74
271	381.00	191.00	198.00	411.00	119.00	750.00			90	Median Log Channel	92
276	1769.00	577.00	1737.00	1374.00	878.00	11621.00			>1.25x neg ctrl	Median Fluorescence Intensity	95
293	26.42	26.18	29.16	38.89	27.76	188.50			20 Channel Shift	Channel Shift	80
297	615.00	234.00	229.00	678.00	210.00	768.00			1.5 x Tneg (Grey Zone 1.5-2)	Median FI	-
351	NT	NT	NT	NT	NT	NT			NT	NT	NT
392											