

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B06/2017 OS (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 9th May 2017

HLA PHENOTYPE OF BLOOD DONOR: HLA-A3, A24; B51, B64; Cw6, Cw14; DR4, DR9; DQ7, DQ9

		Summary of Results										
		T-cells				B-cells						
Total tested	51	56	57	56	53	46	51	52				
Positive	8	0	2	44	53	26	3	51				
Negative	43	56	55	12	0	20	48	1				
NT/Equivocal	10	5	4	5	4	11	6	5				
% Positive	15.7%	0.0%	3.5%	78.6%	100.0%	56.5%	5.9%	98.1%				
% Negative	84.3%	100.0%	96.5%	21.4%	0.0%	43.5%	94.1%	1.9%				
Consensus	Negative	Negative	Negative	Positive	Positive	Not Assessed	Negative	Positive				
HLA Antibody Specificity (Defined By CDC)	DR4, DR9	B44	B7	A2	DR4, DR9	B44	B7	A2				
		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	
101	Negative	Negative	Negative	Positive	Equivocal	Equivocal	Equivocal	Equivocal	10-May	11-May	Sample contained less than 1% CD19 positive cells (0.4-0.9%). For each serum, we analysed less than 500 B-cells (T cells - 20000 cells). We prefer not to give an interpretation.	
112	Negative	Negative	Negative	Positive	Positive	Negative	Negative	Positive	12-May	12-May		
114	Negative	Negative	Negative	Positive	Positive	Negative	Negative	Positive	10-May	11-May		
115	Negative	Negative	Negative	Positive	Positive	Negative	Negative	Positive	11-May	12-May		
117	Negative	Negative	Negative	Positive	Positive	Equivocal	Negative	Positive	11-May	NT		
118	Positive	Negative	Negative	Positive					10-May	10-May		
119	Equivocal	Negative	Negative	Negative	Positive	Positive	Negative	Positive	09-May	10-May		
120	Negative	Negative	Negative	Positive	Positive	Negative	Negative	Positive	10-May	11-May		
122	Positive	Negative	Positive	Positive	Positive	Positive	Positive	Positive	10-May	11-May		
126	Negative	Negative	Negative	Positive	Positive	Negative	Negative	Positive	10-May	11-May		
130	Negative	Negative	Negative	Positive	Positive	Negative	Negative	Positive	11-May	12-May		
133	Positive	Negative	Negative	Negative	Positive	Negative	Negative	Positive	11-May	12-May		
136	NT	NT	NT	NT					16-May	16-May		Low cell viability
138	Negative	Negative	Negative	Positive					10-May	10-May		
139	Equivocal	Negative	Negative	Positive	Positive	Positive	Negative	Positive	11-May	12-May		
142	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	10-May	12-May		
143	NT	NT	NT	NT					12-May	12-May	T cells crossmatch was not performed for 2B06/17 due to poor cell viability. In a clinical setting, we would have requested new samples for testing.	
144	Negative	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	11-May		
145	Negative	Negative	Negative	Positive	Positive	Positive	Negative	Positive	11-May	11-May		
147	Negative	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	11-May		
149	Negative	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	11-May		
154	Negative	Negative	Negative	Positive	Positive	Positive	Negative	Positive	11-May	11-May		
157	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	10-May	10-May		
159	Negative	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	11-May		
160	Negative	Negative	Negative	Positive	Positive	Positive	Equivocal	Positive	10-May	11-May		
163	Negative	Negative	Negative	Positive	Positive	Negative	Negative	Positive	10-May	11-May		
167	Positive	Negative	Negative	Positive	Positive	Equivocal	Negative	Positive	10-May	11-May		
169	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	10-May	11-May		
176	Negative	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	11-May		
185	Negative	Negative	Negative	Positive	Positive	Equivocal	Negative	Positive	11-May	11-May		
186	Negative	Negative	Negative	Positive	Positive	Negative	Negative	Positive	15-May	15-May		
190	Positive	Negative	Negative	Positive	Positive	Equivocal	Negative	Positive	10-May	11-May		
191	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive	11-May	11-May	T cell ratio 75%, B cell 4.5%	
193	Equivocal	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	10-May		
194	Negative	Negative	Negative	Positive	Positive	Equivocal	Negative	Positive	10-May	10-May		
195	Negative	Negative	Negative	Positive	Positive	Positive	Negative	Positive				
201	Negative	Negative	Negative	Negative	NT	NT	NT	NT	10-May	11-May	Unable to test B lymphocytes due to low cell count	
202	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Equivocal	10-May	10-May	Sample delivery was late	
204	Positive	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	10-May		
206	Negative	Negative	Negative	Positive	Positive	Positive	Equivocal	Positive	10-May	10-May	S3: only one of the duplicates available - MFI = 4.33, ratio = 1.2 - weak positive	
209	Equivocal	Negative	Negative	Positive	Positive	Positive	Negative	Positive	09-May	11-May		
218	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	Samples not received	
220	Negative	Negative	Negative	Positive	Positive	Negative	Negative	Positive	10-May	11-May		
227	NT	NT	NT	NT	NT	NT	NT	NT	09-May		Samples not tested	
230	Negative	Negative	Negative	Positive	Positive	Positive	Negative	Positive	11-May			
235	Negative	Negative	Negative	Negative	Positive	Equivocal	Negative	Positive	10-May	10-May		
238	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	10-May	11-May		
240	Negative	Negative	Negative	Positive	Positive	Positive	Negative	Positive	11-May	11-May		
245	Negative	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	11-May		
246	Negative	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	10-May		
252	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive				
260	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Positive	11-May	11-May	B lymphocyte count too low	
262	Equivocal	Negative	Negative	Positive	Positive	Equivocal	Negative	Positive	10-May	10-May	S1 T equivocal = discrepancy between the duplicate, ratio < 2 but lysis >12%. S2 equivocal = high background noise, difficult to interpret - not enough to test agains	
271											No results returned	
276	Negative	Negative	Negative	Negative	Positive	Negative	Positive	Positive	10-May	16-May	Too few cells	
284	Negative	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	10-May		
293	Negative	Negative	Negative	Positive	Positive	Negative	Negative	Positive	11-May	11-May		
297	Equivocal	Equivocal	Negative	Positive	Positive	Negative	Positive	Positive	11-May	12-May	Grey zone: 1.3 - 1.8 Tneg (LT) and 1.5 - 2 x Tneg (LB)	
302	Negative	Negative	Negative	Negative	Positive	Negative	Negative	Negative	15-May	17-May		
341	Negative	Negative	Negative	Positive	Positive	Positive	Negative	Positive	10-May	12-May		
351	Negative	Negative	Negative	Positive	Positive	Positive	Negative	Positive	13-May	13-May		
358	Positive	Negative	Positive	Positive	Positive	Positive	Positive	Positive	10-May	10-May		

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DISPATCHED ON 9th May 2017

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	0.28	0.20	0.33	0.43	0.25	21.20			2SD		
112	0.388	0.398	0.384	1.07	0.413	0.903			ratio >1.5		99
114	200	182	173	288	177	259			50 linear channel shift		
115	194	195	186	274	203	315			>40		
117	5.07	5.02	5.26	8.63	4.73	93.27			Ratio (RMF) >1.3	Median Log Channel	95
118	213	180	162	241	140	800			206 (140+66)		90
119	805	228	162	902	190	2.3			ratio >1.285B.L		90
120	1.27	0.97	1.03	1.96	64	2012.5			ratio >1.6		100
122	13	9	14	41.5	8		22	11	3SD	Geo Mean Linear Values	98
126	180	185	180	362	148	652			>80 linear shift		>90
130	134	136	127	138	115	255			>40		99
133	0.9	0.3	0.4	0.6	0.3	57			2SD		99
136	NT	NT	NT	NT	NT	NT	NT	NT	NT		
138	0.06	0.03	0.05	0.2	0	0.91			>0.2		
139		0.522	0.44	1.85	0.413	55			>1.5 negative control	MFI	80
142	185	108	89	222	194	5960			227 (194 + 3SD)		90.6
143	NT	NT	NT	NT	NT	NT	NT	NT	NT		77
144	1.01	1.04	0.95	1.96	1500	6.75			1.7	Median/Ratio	
145	0.357	0.345	0.472	0.531	0.413	47.2			2SD of ratio	Median Log Channel	91
147	136	125	121	263	112	641			>40 linear channel shift	Linear Channel	100
149	0.35	0.32	0.35	1.09	0.321	121			2SD	Median Log Channel	85
154	83	73	63	180	61	817			meadian >150% of control ond shape of curve		
157	144	141	135	162	136	584			2SD (cut off 166)		95
159	168	136	132	240	136	420			176		99
160	10.8	10.4	8.8	31.8	8.7	166			>18.7 (negative + 2SD)	Mean Linear Channel	
163	1.7	1.4	1	10.1	1	15.1			2.3 (ratio above)	Geomean Linear Channel (serum/negative control)	95.7
167	204	168	147	416	158	23667.5			2SD	Median Log Channel	90
169	283	277	271	338	367	456			≥50 channel		98
176	0.15	0.1	0.05	0.72	0	0.62			MFI-shift ≥0.4		
185	0.72	0.43	0.37	1.24	0.37	3.23			0.74	Median Log Channel	NT
186	0.3	0.3	0.3	0.9	0.3	33			1.5 fold the local negative control		99
190	110	62	59	191	56	219			T< 1.2 neg >1.5 pos		73.5
191	48	8.7	3.9	58	0	235			30		90
193	2.38	1.44	1.13	7.88	4.52	351.54			Negative control mean x 2.4	Geometric Mean Linear Channel	
194											
195	176	141	136	249	141	1354			Negative control ≥1.3	Median Log Channel	90
201	0.98	576	0.6	1.28	495	21.8			S/NK ≥2		97
202	1.50%	0.20%	0.10%	0.30%	0.10%	98.30%			5%		60
204	0.5	0.31	0.32	1.34	0.33	32.1			0.49 = 1.5 x local neg control		
206	2.76	2.71	2.69	2.99	2.71	4.97			ratio(MFI-serum/FI-NC) >1.07		90
209		98 (1.30)	82 (1.12)	530 (7.3)	73	792 (10.8)			1.5		85
218	NT	NT	NT	NT	NT	NT					
220	2967.5	2017.5	2914	11362	1901.25	261673			6000 above mean of negative controls		98
227	NT	NT	NT	NT	NT	NT					
230	8	7	7	37	10	147			20	MFI	
235	1.35	1.22	1.14	1.2	1.2	58.82			>2 negative median log channel		85
238	855	849	868	1718	988	11719			MESF serum/ MESF negative control	MESF	
240	17	14	17	34	15	370			1.2 x negative control		60
245	1	1	-0.5	6	3	12.5			7		100
246						5.67			1.75	Median Log Fluorescence	86
252	1.4	1.23	1.13	1.39	39.95	336.78			Median Ratio +/- 250	MCR	
260	208.49	99.36	89.04	177.56	110.17	1153.54			2 x negative control MFI	MFI	
262	1106	608	1019	1544	735	14750			2SD		85
271											
276	278	266	280	293	272	8607			>1.25 x negative control		95
284	314	306	301	370	282		1753	420	ratio sample serum/negative control >1.2		
293	7.64	7.91	7.7	17.47	9.775	157.87			10 channel shift		70
297	71	101	70	264	56	250			1.3 x Tneg	Median Fluorescence Intensity	
302											
341	5.2	4.12	4.085	8.25	4.22	28.34			3SD	Geomean Linear Values	98
351	261	215.5	213.5	322.5	179	99			500		
358											

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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											
112	12.7	0.432	0.9	23	0.45	1.66			ratio >2		99
114	691	463	424	685	429	613			60 linear channel shift		
115	652	367	339	629	345	644			>60		
117	39.15		13.89	53.12	9.34	246.13			Ratio (RMF) >1.5	Median Log Channel	95
118	459	122	126	401	120	441			145.5 (120 + 25.5)		90
119	48.9	26.7	4.54	37.1	2.21	4.5			ratio >1.7B.L (1.5-1.7)		90
120	20.42	1.4	1.07	12.24	259	4158			ratio >2		100
122	1185	486	113	963	48		180	75	3SD	Geo Mean Linear Values	98
126	719	250	249	732	204	670			>120 linear channel shift		>90
130	660	353	305	530	283	450			>80		99
133	27.7	5.6	3.8	41.5	1.9	160			2SD		99
136	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
138											
139	131	26.1	6.53	76	3.91	315			>2 local negative control	MFI	80
142	26720	948	690	4961	855	14708			1314 (855 + 3SD)		90.6
143											77
144	18.75	5.6	1.36	12.87	4375	5.87			2.5	Median/Ratio	
145	6.13	2.2	0.895	9.5	0.928	9.5			2SD of ratio	Median Log Channel	91
147	468	483	282	620	311	748			>60 linear channel shift	Linear Channel Shift	100
149	20.7	8.4	2.56	50.8	1.82	165			2SD	Median Log Channel	85
154	6026	891	247	4495	189	3604			median >250% of control ad shape of curve		
157	448	223	182	393	182	658			2SD		95
159	569	364	255	579	212	636			312		99
160	1581	819	224	1284	35.7	360			>215 (negative + 2SD)	Mean Linear Channel	
163	8.5	1.5	1.3	11.2	1	3.8			1.7 (ratio above)	Geomean Linear Channel	95.7
167	16206	1796	763	7914	995	35219			2SD	Median Log Channel	90
169	636	498	355	674	481	597			≥80 channel		98
176	1.54	0.64	0.1	1.41	0	0.69			MFI-shift ≥0.22		
185	8.55	3.24	1.18	14.35	0.77	8.01			4.2	Median Log Channel	NT
186	3.3	1.5	1.9	18.9	1.4	30.1			2 fold negative control		99
190	604	558	155	999	246	966			B< 1.2 neg >2.5 pos		73.5
191	357	154	-17	305	0	405			100		90
193	37.85	3.25	1.25	22.06	40.21	878.35			Negative control mean x 1.9	Geometric Mean Linear Channel	
194											
195	4104	519	241	4686	238	7379			Negative control ≥1.6	Median Log Channel	90
201									S/NK ≥2.5		97
202	31.2%	4.1%	1.9%	7.8%	0.8%	98.4			8		60
204	26.1	9.53	1.87	23.4	2	52.6			3.99 = 2 x local negative control		
206	6.41	5.03	4.33	7.55	3.62	9.93			Ratio(MFI-serum/FI-NC) >1.17		90
209	16281 (29)	2297 (4.1)	558 (0.99)	12513 (22.3)	562	2681 (4.8)			1.7		85
218	NT	NT	NT	NT	NT	NT					
220	261740.5	3030	3359.5	231155.5	2663.5	261769			6000 above the mean of negative controls		98
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
230	144	70	7	176	12	465			40	MFI	
235	237.14	14.2	8.13	40.32	12.63	1218.81			>18 negative median log channel		85
238	17527	9507	3737	32620	4118	32450			MESF serum/ MESF negative control	MESF	
240	1281	1828	865	1161	800	2207			1.4 x negative control		60
245	52	16	1	91	13	72			15		100
246						11.53			2.5	Median Log Fluorescence	86
252	22.72	1.42	1.29	6.32	62.08	1321.53			median ratio +/-250	MCR	
260	4594.78	2500.92	1009.91	3114.06	1411.82	5812.57			2 x negative control MFI	MFI	
262	8610	4179	2110	20290	1198	70051			2SD		85
271											
276	1384	257	339	1137	237	25422			>1.25 x negative control		95
284	960	761	361	1414	332		7137	580	ratio sample serum/negative control >1.2		
293	425.5	52.3	42.74	388.9	55.88	405.64			20 channel shift		70
297	7899	1132	344	6788	275	615			1.5 x Tneg	Median Fluorescence Intensity	
302											
341	159.485	52.94	12.295	119.58	10.64	210.73			3SD	Geomean Linear Values	98
351	14744.5	1258.5	332	2971.5	442	28734			2500		
358											