

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B06/2015 (COMPARED TO LOCAL NEGATIVE CONTROL)

DISPATCHED ON 12TH MAY 2015

HLA PHENOTYPE OF BLOOD DONOR: HLA-A1, A29; B8, B44; Cw7, Cw16; DR17, DR7; DQ2

Summary of Results												
T-cells					B-cells							
Total tested	42	41	45	39	39	41	41	42				
Positive	9	17	0	16	0	7	1	39				
Negative	33	24	45	23	39	34	40	3				
NT/Equivocal	8	9	5	11	8	6	6	5				
% Positive	21.4%	41.5%	0.0%	41.0%	0.0%	17.1%	2.4%	92.9%				
% Negative	78.6%	58.5%	100.0%	59.0%	100.0%	82.9%	97.6%	7.1%				
Consensus	<b>Negative</b>	<b>Not Assessed</b>	<b>Negative</b>	<b>Not Assessed</b>	<b>Negative</b>	<b>Negative</b>	<b>Negative</b>	<b>Positive</b>				
HLA Antibody Specificity (Defined By CDC)	Cw3	A11	Cw5, DR4	DR3	Cw3	A11	Cw5, DR4	DR3				
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	
112	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	15-May	18-May		
114	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	13-May	14-May		
115	<b>Positive</b>	Positive	Negative	Positive	Negative	<b>Positive</b>	Negative	Positive	13-May	18-May		
116	<b>Positive</b>	Positive	Negative	Positive	Negative	<b>Positive</b>	Negative	Positive	13-May	15-May		
117	Negative	Negative	Negative	Negative	Negative	Negative	<b>Positive</b>	<b>Negative</b>	14-May	14-May		
118	<b>Positive</b>	Positive	Negative	Positive	Negative	Negative	Negative	Positive	13-May	13-May		
119	Negative	Negative	Negative	Negative	<b>Equivocal</b>	Negative	Negative	Positive	12-May	13-May		
120	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	13-May	13-May		
122	Negative	Negative	Negative	Positive	Negative	Negative	Negative	Positive	13-May	14-May		
126	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	13-May	13-May		
130	<b>Positive</b>	Positive	Negative	Positive	Negative	Negative	Negative	Positive	13-May	15-May	T-cell pos on samples 1 and 2, but B-cells neg - Still XM considered positive	
136	Negative	Negative	Negative	Negative					13-May	14-May		
138	Negative	Negative	Negative	Negative					13-May	13-May		
139	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>			Cytometry out of use & test not yet in clinical use	
142	<b>Positive</b>	Positive	Negative	Positive	Negative	Negative	Negative	Positive	13-May	15-May		
143	<b>Positive</b>	Negative	Negative	Negative					14-May	15-May		
144	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	13-May	13-May		
145	Negative	Negative	Negative	Positive	Negative	Negative	Negative	Positive	13-May	14-May		
147	Negative	<b>Equivocal</b>	Negative	Negative	Negative	<b>Equivocal</b>	Negative	Positive	13-May	13-May		
154	Negative	Positive	Negative	Weak Positive	Negative	Negative	Negative	Positive	15-May	15-May		
157	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	13-May	13-May		
159	Negative	Positive	Negative	<b>Equivocal</b>	Negative	<b>Positive</b>	Negative	Positive	13-May	13-May		
160	Negative	Negative	Negative	Negative	Negative	<b>Positive</b>	Negative	Positive	13-May	14-May		
163	<b>Weak Positive</b>	Positive	Negative	Positive	Negative	Negative	Negative	Positive	13-May	19-May		
167	<b>Equivocal</b>	Positive	Negative	Positive	Negative	Negative	Negative	Positive	18-May	19-May		
169	Negative	Negative	Negative	Negative	Negative	Negative	Negative	<b>Negative</b>	13-May	14-May		
174	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	26-May		Samples held in customs	
176	Negative	Positive	Negative	Positive	Negative	Negative	Negative	Positive	18-May	20-May		
186	<b>Positive</b>	Positive	Negative	Positive	Negative	Negative	Negative	Positive	13-May	13-May		
190	<b>Equivocal</b>	Positive	Negative	Positive	Negative	Negative	Negative	Positive	13-May	13-May		
191	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	12-May	13-May		
193	Negative	<b>Equivocal</b>	Negative	<b>Equivocal</b>	Negative	Negative	Negative	Positive	13-May	13-May		
194	<b>Equivocal</b>	Positive	Negative	<b>Equivocal</b>	<b>Equivocal</b>	<b>Positive</b>	Negative	Positive	13-May	13-May		
195	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>			Samples not received	
201	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	13-May	14-May		
202	Negative	Negative	Negative	Negative	Negative	Negative	Negative	<b>Negative</b>	13-May	13-May		
204	Negative	Positive	Negative	Positive	Negative	Negative	Negative	Positive	13-May	13-May		
209	Negative	<b>Equivocal</b>	Negative	<b>Equivocal</b>	Negative	Negative	Negative	Positive	13-May	15-May		
218	<b>Positive</b>	Negative	Negative	Positive	Negative	Negative	Negative	Positive	13-May	14-May		
220	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	13-May	13-May		
227	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	13-May	13-May	Technical failure	
235	Negative	Negative	Negative	Positive	Negative	Negative	Negative	Positive	13-May	13-May		
238	Negative	Positive	Negative	<b>Equivocal</b>	<b>Equivocal</b>	<b>Positive</b>	<b>Equivocal</b>	Positive	13-May	15-May	Low cell counts	
245	Negative	<b>Equivocal</b>	Negative	<b>Equivocal</b>	Negative	Negative	Negative	Positive	12-May	13-May		
246	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	13-May	13-May		
252	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	15-May	15-May		
262	Negative	Positive	Negative	Negative	Negative	<b>Positive</b>	Negative	Positive	13-May	13-May		
271	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	<b>NT</b>	19-May	19-May	Samples received late. Very low cell viability	
283	Negative	Positive	Negative	Negative	Negative	<b>Positive</b>	Negative	Positive	13-May	13-May		
284	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	13-May	13-May		

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DISPATCHED ON 12TH MAY 2015

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	FCXM NIBSC negative control used?	Viability (%)
112	0.49	0.571	0.266	0.324	0.398	0.665			Ratio >1.5	Median log channel	No	95
114	227	228	216	224	192	329			232 (192+40 linear channel)	Linear channel	No	87
115	242	269	156	216	169	311			>40 Median linear channel shifts	Median linear channel	Yes	
116	0.42	0.57	0.16	0.57	0.17	51.25			Ratio >1.7	Median log channel	No	
117	4.5	4.38	3.64	4.12	3.43	63.8			Ratio >1.3	Median log channel	Yes	
118	176	183	142	169	133	879			155 (133+22)	Median linear channel	Yes	
119	0.276	0.324	0.15	0.339	0.167	0.733			Ratio >1.285 (B-line -1.48)	MnIX		96
120	1.26	1.35	0.97	1.26	101.5	11194			Ratio >1.6	Median	No	90
122	11.5	11.5	7.5	14	8		44	16	3SD	Geomean linear values	Yes	
126	256	262	199	292	208	564			>55 shifts	Median linear channel	No	
130	186	187	134	198	127	312			>40		No	
136	2.5	3.7	2.1	3.6	2.1	64 (NR=3048)			NR >200	Mean channel	No	97
138	0.11	0.12	0.04	0.11	0	0.99			>0.20		No	
139	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
142	228	277	190	267	192.33	6528			224.13 Median log channel 3SD	Median log channel	No	93
143	37	-2	-7	-42	156				>40	Geomean linear channel	No	90
144	MFI				1049	8609						
	Ratio 1.33	1.47	1.29	1.4	1	4.66			1.7	MFI	No	
145	0.271	0.252	0.234	0.351	0.213	42			Med log ch test/Med log ch neg >mean +2SD	Median log channel	No	96
147	121	139	103	119	98	408			>40 linear channel shift	Median linear channel	No	100
154	94	120	58	101	57	922			Median > 150% control and shape of the curve	MFI	No	
157	91	94	82	92	80	235			95 (Neg+2SD)	Median linear channel	No	90
159	178	210	152	187	150	371			190 (40 mean linear channel shift)	Mean linear channel	No	99
160	10.5	12.3	6.7	13.3	6.9	159			>14.4 (Neg+2SD)	Mean linear channel	No	
163	3.6	5.1	1	5.8	1	10.3			2.3	Geomean log channel	Yes	97
167	273	302	187	299	101	15720			2SD	Median log channel	No	85
169	MLC 56.45	52.13	29.6	31.14	136.4	1043.08						
	NR 41	38	22	23		765			Positive = NR>180	Mean log channel	No	75
174	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
176	SI 0.48	0.5	0.06	0.57	0	1.36			SI≥0.50			
	MESF 2.932	3.062	1.367	3.382	1.207	23.586					No	
186	0.867	1.1	0.465	1.07	0.42	26			1.5 x local negative	MFI	No	95
190	61.83	74.2	38.07	71.13	36.17	128			Ratio samples/Neg >1.5	Median log channel	No	90
191	1.34	8.65	5.37	10	0	73			MFI >15	MFI	Yes	100
193	3.69	6.8	1.85	5.56	1.73	173.4			Neg control mean x2.5	Geometric mean linear channel	No	
194	90.0%	1.5%	10.0%	1.0%	20.0%	24%			R>1	Median	No	100
195	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
201	0.31	0.36	0.22	0.34	0.19	1.16			x-mean sample/x-mean NC ≥ 2	x-mean	No	90
202	0.8	0.6	1.9	0.2	0.4	85.4			5% above the local negative control	Linear scale		
204	0.48	0.87	0.33	0.64	0.33	11.7			0.50 (1.5x local neg)	Mean log channel	No	95
209					223	585			Ratio = 2.62	Geomean log channel	Yes	95
218	146	86.7	67.1	193	84	1098			84x1.2=100.8	Geometric MFI	No	
220	150.5	135	115.5	122	111.5		582	396	40 linear channel shift	Median linear channels	No	96
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
235	4.03	3.92	2.04	5.86	2.29	20.72			±2SD	Median log channel	No	85
238	881	1147	904	885	647	4066			MESF sample/MESF neg control		No	
245	3	5	1	5	4	14.5			7 linear channel shift	Mean linear channel	Yes	100
246	9.4%	9.9%	3.5%	25.5%	2.5%	68.6%			30%		Yes	93
252	0.99	1.07	0.96	1.09	91.4	176.24			XM median channel/Neg median channel	Median channel ratio	No	70
262	Ratio	1.9			849	23092			Ratio >2			
	Lysis	16%							Lysis >12%	Median log channel	No	100
271	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		30
283	0.2005	2.15	0.0855	0.1155	1222	31.858			>2 channel shift	Channel shift	No	
284	66	61	57	63	61	489			Ratio >1.2	Median log channel	No	

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DISPATCHED ON 12TH MAY 2015

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	FCXM NIBSC negative control used?	Viability (%)
112	0.602	0.624	0.494	3.27	0.658	6.41			Ratio >2.0	Median log channel	No	
114	368	357	367	418	326	553			386 (326+60 linear channel)	Linear channel	No	
115	294	332	251	492	245	417			>60 Median linear channel shifts	Median linear channel	Yes	
116	3.04	3.3	2.94	9.12	3.81	37.4			Ratio >1.7	Median log channel	No	
117	8.43	11.19	7.77	43.62	8.22	98			Ratio >1.5	Median log channel	Yes	
118	131	128	137	177	112	558			138 (112+26)	Median linear channel	Yes	
119	3.46	3.52	2.56	10.21	1.17	11			Ratio >1.7 (B-line 1.5-1.7)	MnlX		96
120	1.16	1.07	1.24	3.7	405.5	12263			Ratio >2	Median	No	90
122	27.5	37	25.5	175	20.5		220	67	3SD	Geomean linear values	Yes	
126	276	264	229	463	222	702			>80 shifts	Median linear channel	No	
130	259	281	232	460	227	493			>80		No	
139	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
142	1483	1456	1681	2904	1315.33	17103			2178.30 Median log channel 3SD	Median log channel	No	
144	MFI				5277	22239						
	Ratio 1.29	1.68	1.6	1.6	3.22	1	4.21		2.5	MFI	No	
145	0.754	0.782	0.715	311	0.944	64.7			Med log ch test/Med log ch neg >mean +2SD	Median log channel	No	95
147	158	195	132	257	166	538			>40 linear channel shift	Median linear channel	No	100
154	226	269	293	1712	157	8222			Median > 200% control and shape of the curve	MFI	No	
157	131	127	113	209	120	353			155 (Neg+2SD)	Median linear channel	No	90
159	263	319	257	458	212	657			272 (40 mean linear channel shift)	Mean linear channel	No	99
160	52	98	52	260	42.5	458			>95 (Neg+2SD)	Mean linear channel	No	
163	1.1	1.2	1.1	3.7	1	1.9			1.7	Geomean log channel	Yes	97
167	953	963	940	3472	825	20364			2SD	Median log channel	No	85
169	MLC 18.93	12.5	10.3	12.92	17.45	100.29						
	NR 108	72	59	74	575	575			Positive = NR>200	Mean log channel	No	75
174	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
176	SI 0.02	0.05	0.02	0.45	0	0.41			SI≥0.30			
	MESF 15.002	16.076	14.964	36.809	14.384	36.521					No	
186	2.77	3.14	2.83	8.2	2.46	68.4			2 x local negative	MFI	No	95
190	184.67	178.33	159	672	114	659			Ratio samples/Neg >2.5	Median log channel	No	90
191	-8.25	14	4.8	15.8	0	335			MFI >15	MFI	Yes	100
193	32.19	37.09	31.57	233.21	23.03	456.8			Neg control mean x2.5	Geometric mean linear channel	No	
194	0.9	1.2	0.12	4.4	0.8	140			R>1	Median	No	100
195	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
201	1.07	1.46	0.82	5.13	1.16	32.6			x-mean sample/x-mean NC ≥ 2.5	x-mean	No	89
202	6	5.5	5.6	6.5	3.1	99.6			8% above the local negative control	Linear scale		
204	4.48	4.64	3.01	14	3.49	42.8			6.98 (2x local neg)	Mean log channel	No	95
209				7.7	566	1412			Ratio = 2.49	Geomean log channel	Yes	95
218	4391	3090	5152	11297	3982	4675			3982x1.7=6769.4	Geometric MFI	No	
220	201.5	194.75	180.5	238.5	191		667	425	40 linear channel shift	Median linear channels	No	96
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
235	8.27	6.92	7.34	20.17	5.94	1582.04			±4SD	Median log channel	No	85
238	2111	3038	2900	6179	1197	19149			MESF sample/MESF neg control		No	
245	3	4	3	33.5	17	33.5			15 linear channel shift	Mean linear channel	Yes	100
246	17.6%	22.6%	18.1%	97.8%	16.1%	99.7%			30%		Yes	93
252	1.03	1.14	1.05	4.45	64.94	145.9			XM median channel/Neg median channel	Median channel ratio	No	70
262	Ratio	2.1		5.8	1304	70326			Ratio >2			
	Lysis	21%		86%					Lysis >12%	Median log channel	No	100
271	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
283	-9.6695	31.747	-16.0395	17.765	101.592	44.308			>10 channel shift	Channel shift	No	
284	84	73	74	145	86	1997			Ratio >1.2	Median log channel	No	