

UK NEQAS FOR H&I SCHEME 2B - CROSSMATCHING BY FLOW CYTOMETRY

T-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B10/2014 (COMPARED TO LOCAL NEGATIVE CONTROL)

DESPATCHED ON 23RD SEPTEMBER 2014

HLA PHENOTYPE OF BLOOD DONOR: HLA-A1,A24; B57,B61; Cw2,Cw6; DR11,DR17; DQ2,DQ7

Summary of Results

Total tested	43	46	45	41
Positive	25	1	39	24
Negative	18	45	6	17
Not Tested	1	1	1	1
% Positive	58.1%	2.2%	86.7%	58.5%
% Negative	41.9%	97.8%	13.3%	41.5%

Consensus	Not Assessed	Negative	Positive	Not Assessed			
HLA Antibody (Defined By CDC)	A3,A11+	B12	B57	A11			
Lab No.	Serum 1	Serum 2	Serum 3	Serum 4	Date Received	Date Tested	Comments
112	Positive	Negative	Positive	Positive	26-Sep	29-Sep	
114	Negative	Negative	Negative	Negative	25-Sep	26-Sep	
115	Positive	Negative	Positive	Positive	25-Sep	26-Sep	
116	Positive	Negative	Positive	Positive	25-Sep	26-Sep	
117	Negative	Negative	Positive	Equivocal	26-Sep	26-Sep	
118	Positive	Negative	Positive	Positive	24-Sep	24-Sep	
119	Negative	Negative	Positive	Negative	25-Sep	25-Sep	
120	Negative	Negative	Positive	Negative	24-Sep	24-Sep	
122	Positive	Negative	Positive	Positive	25-Sep	26-Sep	
126	Positive	Negative	Positive	Positive	25-Sep	26-Sep	
130	Positive	Negative	Positive	Positive	25-Sep	26-Sep	
136	Negative	Negative	Positive	Negative	25-Sep	26-Sep	
138	Negative	Negative	Positive	Positive	25-Sep	25-Sep	
142	Negative	Negative	Positive	Positive	24-Sep	25-Sep	
143	Positive	Negative	Positive	Negative	25-Sep	25-Sep	
144	Negative	Negative	Positive	Positive	24-Sep	25-Sep	
145	Positive	Negative	Positive	Positive	25-Sep	29-Sep	
147	Positive	Negative	Positive	Positive	24-Sep	24-Sep	
154	Positive	Negative	Positive	Positive	24-Sep	25-Sep	
157	Positive	Negative	Positive	Positive	24-Sep	24-Sep	
159	Positive	Negative	Positive	Positive	25-Sep	25-Sep	
160	Positive	Negative	Positive	Negative	25-Sep	26-Sep	
163	Weak Positive	Negative	Positive	Weak Positive	24-Sep	25-Sep	
164	Negative	Negative	Positive	Negative	25-Sep	25-Sep	
167	Positive	Negative	Positive	Positive	25-Sep	26-Sep	
169	Negative	Negative	Negative	Negative	25-Sep	26-Sep	
176	Positive	Negative	Positive	Positive	25-Sep	26-Sep	
186	Positive	Negative	Positive	Positive	24-Sep	24-Sep	
190	Negative	Negative	Equivocal	Negative	24-Sep	25-Sep	
191	Negative	Negative	Negative	Negative	25-Sep	26-Sep	
193	Positive	Negative	Positive	Equivocal	24-Sep	24-Sep	
194	Equivocal	Negative	Positive	Equivocal	24-Sep	25-Sep	
195	Positive	Negative	Positive	Negative	01-Oct	01-Sep	
201	Positive	Negative	Positive	Positive	25-Sep	26-Sep	
202	Negative	Negative	Negative	Negative	26-Sep	26-Sep	
204	Positive	Negative	Positive	Positive	26-Sep	26-Sep	
209	Positive	Negative	Positive	Equivocal	25-Sep	26-Sep	
218	Positive	Positive	Positive	Positive	26-Sep	29-Sep	
220	Negative	Negative	Positive	Negative	24-Sep	25-Sep	
227	NT	NT	NT	NT	24-Sep	NT	Technical failure
235	Negative	Negative	Positive	Negative	26-Sep	26-Sep	
238	Equivocal	Negative	Positive	Equivocal	24-Sep	25-Sep	
245	Equivocal	Negative	Positive	Weak Positive	24-Sep	25-Sep	
246	Positive	Negative	Positive	Positive	24-Sep	25-Sep	
252	Negative	Negative	Positive	Negative	26-Sep	26-Sep	
262	Negative	Negative	Negative	Negative	24-Sep	24-Sep	
283	Negative	Negative	Negative	Negative	24-Sep	24-Sep	

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T-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B10/2014 (COMPARED TO LOCAL NEGATIVE CONTROL)

DESPATCHED ON 23RD SEPTEMBER 2014

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?
112	0.677	0.312	0.988	0.887	0.305	12.8			>1.5 ratio	Log median channel	No
114	196	184	237	234	188	329			238 (188+50)		No
115	309	235	345	312	235	379			>40 channel shift		Yes
116	0.64	0.27	1.13	0.9	0.2	45			ratio >1.7	Median log channel	No
117	3.37	3.25	5.59		3.07	107.89			ratio (RMF) >1.3	Median log channel	Yes
118	278	242	312	274	230	869			252 (230+22)	Median linear channel	Yes
119	0.575	0.241	0.974	0.52	0.2	9.4			ratio >1.285 B-line ~1.48	MulX	No
120	1.34	1.07	1.67	1.35		4793			ratio >1.6		No
122	11.5	5	20	10.5	4.5		49	17	3SD	Geomean linear values	Yes
126	404	296	469	426.00	281.5	806			255	Median linear channel	No
130	262	175	317	265	163	280			>40		No
136	5.8	2.7	9.2	5.7	3				36 NR=1187	NR>200	No
138	0.05	0.05	0.48	0.2	0	0.96			>0.20		No
142	95	76	146	153	21.33	3596			94.86 3SD	Median log channel	No
143	86	25	105	29	27	588			≥40	Mean channel shift	No
144	MFI 9.3 Ratio 1.72	6.2 1.15	12.7 2.35	10.5 1.94	5.4 1	32.4 5.97			1.77		No
145	0.327	0.158	0.647	0.371	0.152	140			(Med log ch test/Med log ch neg) >Mean +2SD	Median log channel	No
147	201	148	239	192	131	595			>40 linear channel shift	Median linear channel	No
154	2.91	1.7	4.58	4.37	1.66	92.07			GMFI >115% of neg control x shape of the curve	GMFI	No
157	278	161	357	332	151	501			166 (Neg+15)	Median linear channel	No
159	233	164	280	233	155	462			195	Mean linear channel	No
160	28	8.5	56.2	49.4	7.5	222			>14.7 (Neg+2SD)	Mean linear channel	No
163	4.4	1.3	11	3.7	1	8.9			2.3	Geomean log channel	Yes
164	7.6	4.1	13.2	8.4	4.53	114.5			Neg control x2		No
167	15	8	38	16	8	495			2SD		No
169	MLC 9.98 NR 52	14.37 75	11.22 50	17.16 89	19.2	702.06 3657			NR= (MFI serum/MFI neg serum) x100 Pos= NR>180 SI ≥0.05	Mean log channel	No
176	SI 0.74 MESF 5286	0.19 2086	1.05 9148	0.82 6476	0 13620	1.46 20288					No
186	0.70	0.36	1.35	1.12	0.34	42.8			1.5 fold the local negative	MFI	No
190	38.83	44.30	46.80	38.60	38.47	166.00			ratio sample/neg >1.4	Mean linear channel	No
191	0.60% MFI -8.6	0.86% -6.8	1% -5	0.90% -6	<1% -6	99% 407			MFI >10	MFI	No
193	20.50	3.75	32.65	15.32	3.43	559.52			Neg control mean x2.5	Geometric mean linear channel	No
194	2%	1%	10%	1.8%	1%	100%			>2.4		No
195	303	228	364	262	223	1354			Test/Neg control >1.25	Median log channel	Yes
201	0.406	0.173	0.571	0.405	0.162	36.9			x-mean ≥2.0	X-mean	No
202	1	0.6	0.8	1.9	0.9	98.1			5% above the local neg control		No
204	0.7	0.31	1.52	0.99	0.33	15.2			0.49 = 1.5x local neg control	Mean log channel	No
209	3.24	1.37	5.22		172	863			>1.63 ratio		Yes
218	323	109	449	188	79.1	1118			79.1 x1.2	Geometric MFI	No
220	5.76	5.14	7.22	6.35	4.79		211.46	41.91	2SD		No
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
235	3.46	2.81	8.22	3.65	3.4	135.7			Median ±2SD	Median log channel	No
238	886	580	1194	872	534	29648			MESF serum/MESF neg control	MESF	No
245	4.8	0.3	9.8	5.3	4.7	17			7 linear channel shift	Linear channel shift	Yes
246	67.0%	5.3%	83.8%	74.5%	1.0%	87.7%			30%		No
252	1.07	0.8	3.68	1	97	342					No
262					2157	27486			ratio sample/neg >2 and lysis >12%	Median log channel	No
283	-32.31	-17.68	-71.17	-9.86	187.69	379.73			20 channel shift	Channel shift	No

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B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B10/2014 (COMPARED TO LOCAL NEGATIVE CONTROL)

DESPATCHED ON 23RD SEPTEMBER 2014

HLA PHENOTYPE OF BLOOD DONOR: HLA-A1,A24; B57,B61; Cw2,Cw6; DR11,DR17; DQ2,DQ7

Summary of Results

Total tested	40	43	41	39
Positive	19	1	27	8
Negative	21	42	14	31
Not Tested	1	1	2	1
% Positive	47.5%	2.3%	65.9%	20.5%
% Negative	52.5%	97.7%	34.1%	79.5%

Consensus	Not Assessed	Negative	Not Assessed	Negative			
HLA Antibody (Defined By CDC)	A3,A11+	B12	B57	A11			
Lab No.	Serum 1	Serum 2	Serum 3	Serum 4	Date Received	Date Tested	Comments
112	Positive	Negative	Positive	Positive	26-Sep	29-Sep	
114	Negative	Negative	Negative	Negative	25-Sep	26-Sep	
115	Negative	Negative	Negative	Negative	25-Sep	26-Sep	
116	Positive	Negative	Positive	Negative	25-Sep	26-Sep	
117	Negative	Negative	Positive	Negative	26-Sep	26-Sep	
118	Negative	Negative	Negative	Negative	24-Sep	24-Sep	
119	Positive	Negative	Positive	Negative	25-Sep	25-Sep	
120	Negative	Negative	NT	Negative	24-Sep	24-Sep	Serum 3 gave incoherent results found on T cells and there were not enough cells to repeat the test.
122	Positive	Negative	Positive	Negative	25-Sep	26-Sep	
126	Positive	Negative	Positive	Positive	25-Sep	26-Sep	
130	Positive	Negative	Positive	Positive	25-Sep	26-Sep	
142	Negative	Negative	Negative	Negative	24-Sep	25-Sep	
144	Negative	Negative	Positive	Negative	24-Sep	25-Sep	
145	Positive	Negative	Positive	Positive	25-Sep	29-Sep	
147	Positive	Negative	Positive	Equivocal	24-Sep	24-Sep	
154	Positive	Negative	Positive	Positive	24-Sep	25-Sep	
157	Positive	Negative	Positive	Positive	24-Sep	24-Sep	
159	Positive	Negative	Positive	Negative	25-Sep	25-Sep	
160	Negative	Negative	Weak Positive	Negative	25-Sep	26-Sep	
163	Weak Positive	Negative	Weak Positive	Negative	24-Sep	25-Sep	
164	Positive	Negative	Positive	Negative	25-Sep	25-Sep	
167	Negative	Negative	Negative	Negative	25-Sep	26-Sep	
169	Negative	Negative	Negative	Negative	25-Sep	26-Sep	
176	Positive	Negative	Positive	Negative	25-Sep	26-Sep	
186	Negative	Negative	Negative	Negative	24-Sep	24-Sep	
190	Negative	Negative	Negative	Negative	24-Sep	25-Sep	
191	Negative	Negative	Negative	Negative	25-Sep	26-Sep	
193	Positive	Negative	Positive	Negative	24-Sep	24-Sep	
194	Equivocal	Negative	Equivocal	Equivocal	24-Sep	25-Sep	
195	Negative	Negative	Positive	Negative	01-Oct	01-Oct	
201	Negative	Negative	Negative	Negative	25-Sep	26-Sep	
202	Positive	Negative	Negative	Negative	26-Sep	26-Sep	
204	Positive	Negative	Positive	Negative	26-Sep	26-Sep	
209	Positive	Negative	Positive	Equivocal	25-Sep	26-Sep	
218	Negative	Positive	Negative	Negative	26-Sep	29-Sep	
220	Negative	Negative	Positive	Negative	24-Sep	25-Sep	
227	NT	NT	NT	NT	24-Sep	NT	Technical failure
235	Negative	Negative	Positive	Negative	26-Sep	26-Sep	
238	Equivocal	Negative	Positive	Equivocal	24-Sep	25-Sep	
245	Equivocal	Negative	Weak Positive	Weak Positive	24-Sep	25-Sep	
246	Positive	Negative	Positive	Positive	24-Sep	25-Sep	
252	Negative	Negative	Positive	Negative	26-Sep	26-Sep	
262	Negative	Negative	Negative	Negative	24-Sep	24-Sep	
283	Negative	Negative	Negative	Negative	24-Sep	24-Sep	

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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	FCXM NIBSC negative control used?
112	1.21	0.464	1.32	0.855	0.435	34.5			>2.0 ratio	Log median channel	No
114	331	339	348	359	411	631			471 (411+60)		No
115	449	387	444	406	448	539			>60 channel shift		Yes
116	1.71	0.86	2.02	1.29	0.93	59.15			ratio >1.7	Median log channel	No
117					8.52	206.89			ratio (RMF) >1.5	Median log channel	Yes
118	301	297	304	304	295	630			321 (295+26)	Median linear channel	Yes
119	5.23	2.9	4.51	3.44	1.93	22.5			ratio >1.7	MuX	No
120	1.4	1.05	NT	1.12		8977.5			B-line 1.5-1.7 ratio >2		No
122	16	19	57	25	19		183	69	3SD	Geomean linear values	Yes
126	527	407.5	548	465.5	386	910			>80 median linear shift	Median linear channel	No
130	372	261	387	345	261	472			>80		No
142	584	423	267	571	495	10200			975 3SD	Median log channel	No
144	MFI 24.1 Ratio 1.44	26 1.55	39.8 2.38	33 1.97	16.8 1	94.8 5.66			2		No
145	2.08	0.988	5.31	1.45	0.95	140			(Med log ch test/Med log ch neg) >Mean +2SD	Median log channel	No
147	285	222	302	259	209	689			>40 linear channel shift	Median linear channel	No
154	9.24	5.86	9.73	8.63	5.88	184.02			GMFI >130% of neg control x shape of the curve	GMFI	No
157	395	266	414	401	329	576			364 (Neg+35)	Median linear channel	No
159	339	260	361	290	259	635			319	Mean linear channel	No
160	111	80	170	53	51.7	394			>112 (Neg+2SD)	Mean linear channel	No
163	1.8	1.1	2.7	1.4	1.0	3.3			1.7	Geomean log channel	Yes
164	22.3	9.8	30.2	12.9	9	575.4			Neg control x2		No
167	59	32	81	43	45	1877			2SD		No
169	MLC 9.64 NR 85	10.97 96	11.38 100	16.24 125	11.4	128.76 1160			NR= (MFI serum/MFI neg serum) x100 Pos= NR>200 SI ≥0.30	Mean log channel	No
176	SI 0.32 MESF 15319	0.02 7771	0.4 18129	0.24 13605	0 7516	0.67 37130					No
186	1.19	1.09	1.46	0.95	73.20				2 fold the local negative ratio sample/neg >2.5	MFI	No
190	36.77	40.23	67.67	39.40	44.67	972				Mean linear channel	No
191	2.60% MFI -63	5% -23	3% -45	<10% -55	98% 1377				MFI >30	MFI	No
193	136.31	50.76	108.85	66.63	46.11	1134.47			Neg control mean x2.5	Geometric mean linear channel	No
194	14%	10%	15%	14%	8%	99%			>18%		No
195	408	254	428	328	304	4495			Test/Neg control >1.35	Median log channel	Yes
201	1.78	0.716	1.94	1.19	1.13	61.4			X-mean ≥2.5	X-mean	No
202	10.1	3.2	1.9	4.8	4	97.4			8% above the local neg control		No
204	1.44	0.77	1.79	0.89	0.51	20.3			1.02 = 2x local neg control	Mean log channel	No
209	3.03	1.27	3.28		576	2650			>1.69 ratio		Yes
218	3664	5429	3149	2937	2167	3027			2167 x1.7	Geometric MFI	No
220	8.63	7.62	9.3	7.74	8.69		543.84	78.51	2SD		No
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
235	9.46	6.74	28.4	8.32	7.21	847.1			Median ±4SD	Median log channel	No
238	3686	2449	4102	2427	2489	55882			MESF serum/MESF neg control	MESF	No
245	11.5	2	11.5	4.5	12	38.5			20 linear channel shift	Linear channel shift	Yes
246	66.7%	11.1%	65.2%	76.2%	3.2%	100.0%			30%		No
252	1.1	0.7	2.6	0.9	100	421					No
262					3056	78092			ratio sample/neg >2 and luis >12%	Median log channel	No
283	-92.52	26.87	-197.78	35.98	982.17	425.29			140 channel shift	Channel shift	No