

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

T-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B06/2014 (COMPARED TO LOCAL NEGATIVE CONTROL)

DESPATCHED ON 20TH MAY 2014

HLA PHENOTYPE OF BLOOD DONOR: HLA-A3, A29; B60, B64; Cw3, Cw8; DR4, DR7; DQ2, DQ3

Summary of Results

Total tested	46	45	46	43
Positive	42	4	1	10
Negative	4	41	45	33
Not Tested	2	2	2	2
% Positive	91.3%	8.9%	2.2%	23.3%
% Negative	8.7%	91.1%	97.8%	76.7%

<b>Consensus</b>	<b>Positive</b>	<b>Negative</b>	<b>Negative</b>	<b>Negative</b>
HLA Antibody (Defined By CDC)	A29	B7	B12	A11

Lab No.	Serum 1	Serum 2	Serum 3	Serum 4	Date Received	Date Tested	Comments
112	Positive	Negative	Negative	Negative	22-May	23-May	
114	Positive	Negative	Negative	Negative	21-May	22-May	
115	Positive	Negative	Negative	Negative	22-May	23-May	
116	Positive	Negative	Negative	Positive	22-May	23-May	
117	Positive	Negative	Negative	Equivocal	23-May	23-May	
118	NT	NT	NT	NT	22-May	22-May	NT due to late arrival/delivery of the samples
119	Positive	Negative	Negative	Negative	21-May	22-May	
120	Positive	Negative	Negative	Negative	21-May	22-May	
122	Positive	Negative	Negative	Negative	21-May	22-May	
126	Positive	Negative	Negative	Equivocal	21-May	21-May	
130	Positive	Negative	Negative	Negative	21-May	22-May	
136	Positive	Negative	Negative	Negative	22-May	22-May	
138	Positive	Negative	Negative	Negative	22-May	22-May	
142	Positive	Negative	Negative	Negative	21-May	22-May	
143	Positive	Negative	Negative	Negative	22-May	23-May	
144	Positive	Negative	Negative	Negative	21-May	22-May	
145	Positive	Positive	Negative	Positive	20-May	21-May	
147	Positive	Negative	Negative	Negative	21-May	21-May	
154	Positive	Negative	Negative	Weak Positive	21-May	22-May	
157	Positive	Negative	Negative	Negative	21-May	21-May	
159	Positive	Negative	Negative	Negative	22-May	22-May	
160	Positive	Negative	Negative	Negative	20-May	21-May	
163	Positive	Negative	Negative	Weak Positive	21-May	21-May	
164	Positive	Negative	Negative	Negative	21-May	22-May	
167	Positive	Negative	Negative	Weak Positive	22-May	23-May	
169	Negative	Negative	Negative	Negative	21-May	22-May	
176	Positive	Negative	Negative	Negative	22-May	23-May	
186	Positive	Negative	Negative	Positive	21-May	22-May	
190	Positive	Negative	Negative	Positive	21-May	22-May	
191	Negative	Negative	Negative	Negative	21-May	21-May	
193	Positive	Negative	Negative	Equivocal	21-May	21-May	
194	Positive	Negative	Negative	Negative	21-May	22-May	
195	Positive	Negative	Negative	Negative	23-May	23-May	
201	Positive	Negative	Negative	Negative	21-May	22-May	
202	Negative	Negative	Negative	Negative	21-May	21-May	
204	Positive	Negative	Negative	Positive	21-May	21-May	Serum 4 very close to the threshold
209	Positive	Negative	Negative	Negative	21-May	22-May	
218	Positive	Positive	Positive	Positive	23-May	27-May	
220	Positive	Negative	Negative	Negative	22-May	23-May	
227	Positive	Negative	Negative	Negative	21-May	22-May	
235	Positive	Positive	Negative	Negative	21-May	21-May	
238	Positive	Equivocal	Negative	Positive	21-May	21-May	
245	Positive	Negative	Negative	Negative	21-May	22-May	
246	Positive	Negative	Negative	Negative	22-May	22-May	
252	Positive	Positive	Negative	Negative	21-May	22-May	
262	Positive	Negative	Negative	Negative	21-May	21-May	
271	NT	NT	NT	NT	NT	NT	Low cell viability
283	Negative	Negative	Negative	Negative	22-May	22-May	

PLEASE NOTE: THE NEXT DISTRIBUTIONS IS ON 8TH JULY 2014

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

T-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B06/2014 (COMPARED TO LOCAL NEGATIVE CONTROL)

DESPATCHED ON 20TH MAY 2014

Lab No.	Serum 1 cytometer reading	Serum 2 cytometer reading	Serum 3 cytometer reading	Serum 4 Negative control (local)	Positive control (local)	Strong positive (local)	Weak positive (local)	Positive result value	Cytometer reading units	FCM/NBSC negative control used?
112	2.22	0.288	0.263	0.288	0.304			> 1.5 ratio	Median log channel	No
114	381	178	160	191	153			203 (153+50)	Median linear channel	No
115	406	244	226	240	248			>40 channel shifts	Median linear channel shifts	Yes
116	1.69	0.2	0.23	0.39	0.26			Ratio (RFM) > 1.3	Median log channel	Yes
117	8.95	3.49	3.62	3.25	37.62			NT	Median log channel	NT
118	NT	NT	NT	NT	NT	NT	NT	T-XM: ratio >1.285	NT	NT
119	1.04	0.172	0.156	0.184	0.167			B-line ~1.48	MhIX	No
120	399	114	107	136	95.50	14666		Neg control median x1.6	Median	No
122	48.5	7	7	9	6		21	3SD	Geo mean linear values	Yes
126	555	333	300.5	297.5	553			>55 median linear shift	Median linear channel	No
130	339	165	150	163	318			>40	Mean channel	No
136	24	2.5	2.9	1.2	2.93	852		NR >200	Kolmogorov-Smirnov statistic	No
138	0.36	0.04	0.02	0.06	0			>0.20	Median log channel	No
142	254	141	97	146	3309			200.2 (3SD)	Mean channel shift	No
143	196	2	-5	16	942			≥40	MFI	No
144	MFI 27.6	2.2	7.9	8.8	17.3			Ratio 1.77	Ratio	No
145	1.39	1.15	1	1.23	2.42			(Med log ch test/Med log ch neg) >mean +2SD	Median log channel	No
147	156	77	69	94	451			>60 linear channel shift	Median linear channel	No
154	1629	2.37	2.08	3.37	46.15			gMFI > 115% + shape of the curve	gMFI	No
157	197.5	125	123	131	314			130.5 (Neg + 15)	Median linear channel	No
159	282	142	139	161	378			40 linear channel shift (> 182 MLC)	Mean linear channel	No
160	109	11	9.6	13.7	192			> 13.3 (Negative + 2SD)	Mean linear channel	No
163	17	1.5	1.3	2.8	5.1			2.3 Geomean log channel (serum/neg control)	Geomean log channel (serum/neg control)	Yes
164	30.1	4	3.7	5.5	118			12.3 (3 x MFI Negative control)	MFI	No
167	64	8	7	12	991			2SD	Median log channel	No
169	MLC 191	93.00	105.00	107.00	1237.00			NR = (MFI serum/MFI neg serum) x100	Mean log channel	No
176	NR 158	77.00	87.00	88.00	1022.00			SI ≥ 0.5	SI	No
186	MESF 12.821	0.2	0.09	0.36	1.47			1.5 fold the local negative	MESF	No
190	230.00	0.52	0.39	0.80	20516			Ratio sample/negative > 1.2	Mean fluorescence intensity - log channel	No
191	0.03	0.95%	1.14%	0.67%	167.00			MFI > 10	Mean linear channel	No
193	58.84	-4	-3	-7	266			Negative control mean x 2.5	%	No
194	0.2	0.107	0.111	0.109	273.91			Ratio > 1.5	MFI	No
195	836	294	298	327	2			Test/negative control > 1.25	Geometric mean linear channel	No
201	1.27	0.285	0.29	0.346	1914			x-mean ≥ 2.0	MhIX	Yes
202	4.6	0.8	0.9	1	11.5			5% above the local negative control	Median log channel	No
204	3.07	0.28	0.29	0.49	92			0.48 = 1.5 x local negative control	x-mean	No
209	3.91	1.09	0.398	1.57	405			> 1.63 ratio	Mean log channel	No
218	650	116	106	97.3	908			74.9 x 1.2 = 89.88	Ratio = Geomean log channel serum / Geomean log channel neg control	Yes
220	8.08	5.19	5.07	5.93	2SD			2SD	Geometric MFI	No
227	1.8	0.36	0.46	0.43	0.94	184.60	19.55	Median ±2SD	GeoMean linear values	No
235	2.8	2.75	1.32	1.16	6.76			MESF serum/MESF negative control	Mean log channel	No
238	2624	618	563	790	4202			7 linear channel shift	Median log channel	No
245	16	0	0	2	8			>30%	MESF	Yes
246	90.3%	<1.0%	1.0%	<1.0%	91.5%			XM median channel/neg median channel	linear channel shift	No
252	2.38	1.22	0.94	1.1	90			Ratio sample/negative > 2, lysis > 12%	%	No
262	Ratio 83%			955	23133			20 (channel shift)	Median channel ratio	No
271	NT	NT	NT	NT	NT	NT	NT		Median log channel	NT
283	-71.53	-81.5	-67.83	-69.7	97.65				Channel shift	No

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B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B06/2014 (COMPARED TO LOCAL NEGATIVE CONTROL)

DESPATCHED ON 20TH MAY 2014

HLA PHENOTYPE OF BLOOD DONOR: HLA-A3, A29; B60, B64; Cw3, Cw8; DR4, DR7; DQ2, DQ3

Summary of Results

Total tested	41	36	40	40
Positive	41	9	1	5
Negative	0	27	39	35
Not Tested	4	4	4	4
% Positive	100.0%	25.0%	2.5%	12.5%
% Negative	0.0%	75.0%	97.5%	87.5%

<b>Consensus</b>	<b>Positive</b>	<b>Negative</b>	<b>Negative</b>	<b>Negative</b>
HLA Antibody (Defined By CDC)	A29	B7	B12	A11

Lab No.	Serum 1	Serum 2	Serum 3	Serum 4	Date Received	Date Tested	Comments
112	Positive	Equivocal	Negative	Negative	22-May	23-May	
114	Positive	Negative	Negative	Negative	21-May	22-May	
115	Positive	Negative	Negative	Negative	22-May	23-May	
116	Positive	Negative	Negative	Negative	22-May	23-May	
117	Positive	Equivocal	Negative	Negative	23-May	23-May	
118	NT	NT	NT	NT	22-May	22-May	
119	Positive	Negative	Negative	Negative	21-May	22-May	
120	Positive	Negative	Negative	Negative	21-May	22-May	
122	Positive	Negative	Negative	Negative	21-May	22-May	
126	Positive	Positive	Negative	Negative	21-May	21-May	
130	Positive	Negative	Negative	Negative	21-May	22-May	
142	Positive	Negative	Negative	Negative	21-May	22-May	
144	Positive	Negative	Negative	Negative	21-May	22-May	
145	Positive	Positive	Negative	Positive	20-May	21-May	
147	Positive	Positive	Negative	Equivocal	21-May	21-May	
154	Positive	Positive	Negative	Weak Positive	21-May	22-May	
157	Positive	Negative	Negative	Negative	21-May	21-May	
159	Positive	Negative	Negative	Negative	22-May	22-May	
160	Positive	Negative	Negative	Negative	20-May	21-May	
163	Positive	Negative	Negative	Negative	21-May	21-May	
164	Positive	Negative	Negative	Negative	21-May	22-May	
167	Positive	Weak Positive	Negative	Negative	22-May	23-May	
169	Positive	Negative	Negative	Negative	21-May	22-May	
176	Positive	Negative	Negative	Negative	22-May	23-May	
186	Positive	Negative	Negative	Negative	21-May	22-May	
190	Positive	Positive	Positive	Positive	21-May	22-May	
191	Positive	Positive	Negative	Positive	21-May	21-May	
193	Positive	Negative	Negative	Negative	21-May	21-May	
194	Positive	Equivocal	Negative	Negative	21-May	22-May	
195	Positive	Negative	Negative	Negative	23-May	23-May	
201	Positive	Negative	Negative	Negative	21-May	22-May	
202	Positive	Negative	Negative	Negative	21-May	21-May	
204	Positive	Negative	Negative	Negative	21-May	21-May	
209	Positive	Equivocal	Negative	Negative	21-May	22-May	
218	NT	NT	NT	NT	23-May	27-May	Too few B cells to accurately report on.
220	Positive	Negative	Negative	Negative	22-May	23-May	
227	Positive	Negative	Negative	Negative	21-May	22-May	
235	Positive	Positive	Negative	Negative	21-May	21-May	
238	Positive	Positive	Equivocal	Positive	21-May	21-May	
245	Positive	Negative	Negative	Negative	21-May	22-May	
246	Positive	Negative	Negative	Negative	22-May	22-May	
252	NT	NT	NT	NT	21-May	22-May	NT- insufficient B cell count
262	Positive	Equivocal	Negative	Negative	21-May	21-May	
271	NT	NT	NT	NT	NT	NT	Low cell viability
283	Positive	Negative	Negative	Negative	22-May	22-May	

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B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B06/2014 (COMPARED TO LOCAL NEGATIVE CONTROL)

DESPATCHED ON 20TH MAY 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)	Sirong positive (local)	Weak positive (local)	Positive result value	Cytometer reading units	FCXM/NBSC negative control used?
112	28.8		0.371	0.336	0.398	18.7			> 2.0 ratio	Median log channel	No
114	595	371	350	343	359	456			419 (359+60)	Median linear channel	No
115	710	446	313	294	394	651			>60 channel shifts	Median linear channel shifts	Yes
116	20.1	4.2	1.77	1.86	2.74	41.1			Ratio > 1.7	Median log channel	No
117	54.13		7.77	9.47	8.31	87.45			Ratio (RFM) > 1.5	Median log channel	Yes
118	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT
118	17.1	2.98	2.48	1.78	0.518	24.1			B-XM: ratio >1.7	MnX	No
119									B-line 1.5-1.7		No
120	6097	960	655	667.5	One AB serum 598	One hyperimmunised serum 23981			Neg control median x2	Geo mean linear values	Yes
122	835	48	20	31.5	26.5	268	86		3SD	Median linear channel	No
126	832	587	448	477	483	821			>80 median linear shift	Median linear channel	No
130	393	280	231	280	221	318			>80		No
142	2796	300	440	275	300	826			559.59 (3SD)	Median log channel	No
144	MFI 255.4	44.8	35.5	39.9	31	68.6			Ratio 2.0	MFI	No
145	Ratio 8.24	1.44	1.15	1.29	1	2			(Med log ch test/Med log ch neg) >mean +2SD	Ratio	No
147	23.8	2.96	0.782	1.92	0.983	134			>60 linear channel shift	Median log channel	No
147	459	238	126	153	81	620			gMFI > 130% + shape of the curve	Median linear channel	No
154	265.66	17.81	8.51	13.44	151	417			186 (Neg + 35)		No
157	427	182	142	174	149	675			60 linear channel shift (> 200 MLC)	Median linear channel	No
159	551	199	136	182	199	246			> 62.6 (Neg + 3SD)	Mean linear channel	No
160	1528.00	60.00	32.20	47.30	22.10	246			1.7 Geomean log channel (serum/neg control)	Geo mean log channel (serum/neg control)	Yes
163	5.70	1.40	0.90	1.00	1.00	1.3			93.2 (2 x MFI Negative control)	MFI	No
164	300.00	30.60	20.40	24.20	46.60	667			2SD	Median log channel	No
167	675.00	50.00	33.00	37.00	24.00	1299			NR = (MFI serum/MFI neg serum) x100	Median log channel	No
167	MLC 990	227.00	221.00	242.00	311.50	2021			Pos >200 B-cell	Mean log channel	No
169	NR 318	73.00	71.00	78.00	649	649			SI ≥ 0.30	SI	No
176	SI 0.7	0.21	0.04	0.03	0.00	0.67			twice the local negative	MESF	No
186	MESF 93336	11274.00	6728.00	6640.00	6043.00	132808			Ratio sample/negative > 1.4	Mean fluorescence intensity - log channel	No
186	40.90	3.87	3.92	4.73	4.37	78.9			MFI > 30	Mean linear channel	No
190	983.33	111.30	70.97	91.97	50.10	860			Negative control mean x 2.5	%	No
191	45%	36%	6%	13%	<1%	370			Ratio > 1.5	MFI	No
193	MFI 150	126	17	65	81.95	685.76			Test/negative control > 1.35	Geometric mean linear channel	No
193	1125.18	124.09	91.00	107.61	11	11			x-mean ≥ 2.5	MnX	No
194	8.50	0.80	0.58	0.67	0.45	7862			8% above the local negative control	Median log channel	Yes
195	5155	370	295	365	311	22.5			7.7 = 2 x local negative control	x-mean	No
201	17.8	1.79	0.819	1.06	0.762	97			> 1.69 ratio	Mean log channel	No
202	62	4.1	6.7	7.6	7.1	11.6			Ratio = Geomean log channel serum / Geomean log channel neg control	Ratio = Geomean log channel serum / Geomean log channel neg control	Yes
204	20.3	3.98	1.37	3.48	3.86	1049			NT	NT	NT
204	25.85	-	1.17	1.31	413	1049			2SD	GeoMean linear values	NT
209	NT	NT	NT	NT	NT	NT	NT		2.98 (2 x local negative control)	Mean log channel	No
218	NT	8.87	8.05	9.44	10.42	32.8			Median ±2SD	Median log channel	No
220	32.03	2.63	3.07	2.41	1.99	25.3			MESF serum/MESF negative control	MESF	No
227	21.3	2.63	3.58	1.95	2.78	17801			20 linear channel shift	Linear channel shift	Yes
235	26.6	11.9	3.58	1.95	2.78	32			>30%	%	No
238	16811	2509	1531	1879	1216	32			Ratio sample/negative > 2, lysis > 12%	NT	NT
245	77.5	8.5	2	4.5	18	97.5%			140 (channel shift)	Median log channel	No
246	75.7%	19.2%	14.6%	11.4%	6.0%	76685				Channel shift	No
252	NT	NT	NT	NT	NT	1407					NT
252	Ratio 12.28										NT
262	Lysis 92.5%										No
271	NT	NT	NT	NT	NT	298.71					No
283	354.8	-95.34	-103.87	-103.87	336.78	298.71					No