UKNEQAS for HISTOCOMPATIBILITY and IMMUNOGENETICS
UNITED KINGDOM EXTERNAL QUALITY ASSESSMENT SERVICE

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

T-CELL AND B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B01/2015 (COMPARED TO LOCAL NEGATIVE CONTROL)

DESPATCHED ON 06TH JANUARY 2015

HLA PHENOTYPE OF BLOOD DONOR: HLA-A3,A24; B7,B57; Cw6,Cw7; DR1,DR15; DQ5,DQ6

Summary of Results

	T-cells				B-cells			
Total tested	42	46	46	45	42	42	41	41
Positive	15	1	45	3	36	0	29	33
Negative	27	45	1	42	6	42	12	8
NT/Equivocal	7	3	3	4	4	4	5	5
% Positive	35.7%	2.2%	97.8%	6.7%	85.7%	0.0%	70.7%	80.5%
% Negative	64.3%	97.8%	2.2%	93.3%	14.3%	100.0%	29.3%	19.5%
Consensus	**Not Assessed**	**Negative**	**Positive**	**Negative**	**Positive**	**Negative**	**Not Assessed**	**Positive**
HLA Antibody Specificity (Defined By CDC)	B7	B12	A3,A11,DR7	DR3	B7	B12	A3,A11,DR7	DR3

Lab No.	T-cells Serum 1	T-cells Serum 2	T-cells Serum 3	T-cells Serum 4	B-cells Serum 1	B-cells Serum 2	B-cells Serum 3	B-cells Serum 4	Date Received	Date Tested	Comments
112	Equivocal	Negative	Positive	Negative	Positive	Negative	Positive	Positive	09-Jan	09-Jan	
114	Negative	Negative	Positive	Negative	NT	NT	NT	NT	07-Jan	08-Jan	B-Cells NT due to low reagents
115	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	07-Jan	08-Jan	
116	Positive	Negative	Positive	Negative	Positive	Negative	Negative	Positive	07-Jan	08-Jan	
117	Negative	Negative	Positive	Negative	Positive	Negative	Positive	Positive	08-Jan	08-Jan	
118	Positive	Negative	Positive	Negative	Positive	Negative	Negative	Negative	07-Jan	07-Jan	
119	Negative	Negative	Positive	Negative	Positive	Negative	Positive	Positive	06-Jan	07-Jan	
120	Negative	Negative	Positive	Negative	Positive	Negative	Equivocal	Positive	07-Jan	08-Jan	
122	Negative	Negative	Positive	Negative	Positive	Negative	Positive	Negative	07-Jan	08-Jan	
126	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	07-Jan	08-Jan	
130	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	07-Jan	08-Jan	
136	Negative	Negative	Positive	Negative					07-Jan	08-Jan	
138	Negative	Negative	Positive	Negative					07-Jan	08-Jan	
142	Positive	Positive	Positive	Positive	Positive	Negative	Negative	Positive	09-Jan	12-Jan	
143	Positive	Negative	Positive	Negative					09-Jan	09-Jan	
144	Negative	Negative	Positive	Negative	Positive	Negative	Positive	Positive	07-Jan	08-Jan	
145	Negative	Negative	Positive	Negative	Positive	Negative	Positive	Positive	09-Jan	09-Jan	
147	Negative	Negative	Positive	Negative	Positive	Negative	Positive	Positive	07-Jan	07-Jan	
154	Weak Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	07-Jan	08-Jan	
157	Negative	Negative	Positive	Negative	Positive	Negative	Positive	Positive	07-Jan	07-Jan	
159	Negative	Negative	Positive	Negative	Positive	Negative	Positive	Positive	07-Jan	08-Jan	
160	Negative	Negative	Positive	Negative	Positive	Negative	Negative	Positive	11-Jan	12-Jan	
163	Positive	Negative	Positive	Negative	Positive	Negative	Negative	Positive	07-Jan	08-Jan	
167	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	07-Jan	08-Jan	
169	Negative	Negative	Positive	Negative	Negative	Negative	Positive	Negative	08-Jan	09-Jan	
176	Negative	Negative	Positive	Negative	Negative	Negative	Negative	Negative	07-Jan	08-Jan	
186	Weak Positive	Negative	Positive	Negative	Positive	Negative	Weak Positive	Positive	07-Jan	07-Jan	
190	Equivocal	Negative	Positive	Negative	Positive	Negative	Positive	Positive	07-Jan	08-Jan	
191	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Positive	07-Jan	08-Jan	
193	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	07-Jan	07-Jan	
194	Negative	Negative	Positive	Negative	Positive	Negative	Positive	Positive	07-Jan	09-Jan	
195	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	13-Jan	13-Jan	
201	Negative	Negative	Positive	Negative	Positive	Negative	Positive	Positive	07-Jan	08-Jan	
202	Negative	Negative	Positive	Negative	Positive	Negative	Negative	Negative	07-Jan	07-Jan	
204	Negative	Negative	Positive	Negative	Positive	Negative	Positive	Negative	07-Jan	07-Jan	
209	NT	NT	NT	NT	NT	NT	NT	NT			No resutls returned
218	Positive	Negative	Positive	Positive	Negative	Negative	Negative	Positive	08-Jan	09-Jan	
220	Negative	Negative	Positive	Negative	Positive	Negative	Positive	Positive	07-Jan	07-Jan	
227	NT	NT	NT	NT	NT	NT	NT	NT	07-Jan	08-Jan	Technical failure
235	Negative	Negative	Positive	Negative	Positive	Negative	Positive	Positive	08-Jan	08-Jan	
238	Equivocal	Negative	Positive	Negative	Positive	Negative	Positive	Positive	07-Jan	08-Jan	
245	Negative	Negative	Positive	Negative	Positive	Negative	Negative	Negative	07-Jan	08-Jan	
246	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Positive	07-Jan	08-Jan	
252	Negative	Negative	Positive	Negative	Positive	Negative	Positive	Positive	08-Jan	08-Jan	
262	Negative	Negative	Positive	Equivocal	Positive	Negative	Positive	Equivocal	07-Jan	07-Jan	
268	Negative	Negative	Positive	Positive	Negative	Negative	Negative	Positive	07-Jan	08-Jan	
271	Equivocal	Negative	Positive	Negative	Positive	Negative	Positive	Positive	12-Jan	13-Jan	
283	Negative	Negative	Positive	Negative	Negative	Negative	Negative	Negative	07-Jan	07-Jan	
284	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	

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

T-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B01/2015 (COMPARED TO LOCAL NEGATIVE CONTROL)

DESPATCHED ON 06TH JANUARY 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?
112		0.238	1.65	0.268	0.37	10.8			Ratio >1.5	Median log channel	No
114	270	220	380	191	267	355			317 (267+50)	Median linear channel	No
115	279	186.0	353	201	197	382			>40 linear channel shifts	Median linear channel shifts	Yes
116	0.47	0.17	1.67	0.21	0.18	39.3			Ratio >1.7	Median log channel	No
117	4.33	3.32	7.58	3.3	3.62	132.74			Ratio (RMF) >1.3	Median log channel	Yes
118	255	209	296	212	212	808			234 (212+22)	Median linear channel	Yes
119	0.434	0.198	1.35	0.2	0.178	13.2			T-XM ratio >1.285 B-line(-1.48)	MnlX	No
120	1.53	0.99	2.34	1	94	15314.5			Ratio >1.6	Median	No
122	10.5	8	28	8	8		83	25	3SD	Geomean linear values	Yes
126	370	280	495.5	290.5	281.5	648			>55 linear channel shifts	Median linear channel shifts	No
130	188	141	311	150	135	301			>40		No
136	5.4	3.4	17.1	3.7	3.6	225 (NR=6308)			NR>200	Mean channel	No
138	0.05	0.06	0.21	0.05	0.00	0.97			>0.20		No
142	217	196	318	196	57	9357			98.57 3SD	Median log channel	No
143	53	-5	79	17	40	137			≥40 linear channel shifts	Geomean	No
144	1.52	1.14	2.99	1.09	1.036	11.9			1.7	Ratio	No
145	0.162	0.147	0.315	0.151	0.102	1.97			Med log ch test/Med log ch neg >mean +2SD	Median log channel	No
147	165	132	262	133	130	594			>40 linear channel shifts	Median linear channel	No
154	2.76	1.43	15.13	1.74	1.88	81.17			GMFI >115% control x shampe of the curve	GMFI	No
157	107	96	154	98	98	508			113 (Neg+15)	Median linear channel	No
159	173	149	271	154	152	407			40 linear channel shift	Mean linear channel	No
160	24.5	14.7	83	16.5	17.4	492			>32.3 (Neg+2SD)	Mean linear channel	No
163	3.5	1	12.5	1.3	1	10.5			2.3	Geomean log channel	Yes
167	280	177	981	187	180	16127			2SD	Median log channel	No
169	MLC 38.5	17.52	1990.1	13.15	57.45	2138					
	NR 67	30	331	23		3721			Positive = NR≥80	Mean log channel	No
176	SI 0.33	-0.02	0.91	0.05	0	1.27					
	MESF 2439	1125	7377	1323	1191	15156			SI≥0.50	MESF	No
186	0.578	0.416	1.61	0.425	0.425	11.5			1.5 fold the negative control	MFI log channel	No
190	46.83	32.5	70.8	33.9	31.9	176			Ratio sample/Neg >1.5		No
191	0.3	2	5	-5	0	287			MFI >15	MFI	Yes
193	9.48	3.25	50.37	3.82	3.58	551.44			Neg control mean x2.5	Geometric mean linear channel	No
194	1.05%	0.1%	7.6%	0.2%	0.4%	100%			>2.4%		No
195	354	190	657	202	200	3175			Test/Neg control >1.25	Median log channel	Yes
201	0.432	0.28	0.934	0.297	0.265	42.6			x-mean ratio ≥2	x-mean	No
202	1.1	0.9	6.4	1.2	0.2	99			5% above the local neg control	Linear scale	
204	0.5	0.34	2.59	0.31	0.34	16.1			0.51 = 1.5x local neg control	Mean log channel	No
209											
218	258	132	1169	167	146.4 (122x1.2)	2195			122x1.2 =146.4	MFI	No
220	162	145	200	154	135		589	386	40 linear channel shift	Median linear channel	No
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
235	8.32	5.62	15.82	5.47	5.06	226			±2SD	Median log channel	No
238	1135	748	2473	738	735	19275			MESF serum/MESF neg control		No
245	2.7	0	8.2	0.2	4.3	17.5			7 linear channel shift	Linear channel shift	Yes
246	51.5%	1.6%	59%	1%	0.2%	89%			30%		No
252	1.05	0.98	1.36	1.03	67	156			XM median/Neg median	Median channel ratio	No
262	Ratio		1.6								
	Lysis		27%		1593	14543			Ratio sample/Neg >2 or lysis >12%	Median log channel	No
268											No
271	NT	144	360	168	151	368			67 log channel shift	Median log channel	No
283	0.7535	-0.054	5.616	0.286	2.284	52.456			3 channel shift	Channel shift	No
284	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

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

B-CELL FLOW CYTOMETRY RESULTS OF SAMPLE 2B01/2015 (COMPARED TO LOCAL NEGATIVE CONTROL)

DESPATCHED ON 06TH JANUARY 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?
112	0.696	0.541	1.71	4.36	0.559	5.50			Ratio >2.0	Median log channel	No
114	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
115	595	305	434	486	310	682			>60 linear channel shifts	Median linear channel shifts	Yes
116	6.51	1.59	3.71	4.65	2.32	54.1			Ratio >1.7	Median log channel	No
117	47.61	9.71	20.86	28.46	11.43	438.57			Ratio (RMF) >1.5	Median log channel	Yes
118	232	173	195	208	182	540			208 (182+26)	Median linear channel	Yes
119	13.3	3.45	5.72	6.03	1.798	19.8			B-XM ratio >1.7 B-line(1.5-1.7)	MnlX	No
120	3.37	1.19		2.08	613	17300.5			Ratio >2.0	Median	No
122	86.5	23.5	55	48	22		314	95	3SD	Geomean linear values	Yes
126	645.5	402.5	563	583.5	417	752			>80 linear channel shifts	Median linear channel shifts	No
130	448	248	383	398	236	485			>80		No
142	2936	1616	1790	2337	1460	20231			2276.33 3SD	Median log channel	No
144	4.67	1.52	2.94	3.03	3.594	8.20			2.5	Ratio	No
145	3.1	0.472	0.855	1.33	0.517	8.33			Med log ch test/Med log ch neg >mean +2SD	Median log channel	No
147	418	213	305	379	220	729			>40 linear channel shifts	Median linear channel	No
154	44.86	6.68	38.08	46.21	11.13	495.14			GMFI >130% control x shampe of the curve	GMFI	No
157	245	137	207	203	155	604			190 (Neg+35)	Median linear channel	No
159	443	268	343	391	254	638			60 linear channel shift	Mean linear channel	No
160	560.5	138	219.3	296	202.4	1626			>394 (Neg+2SD)	Mean linear channel	No
163	2.7	1	1.6	1.9	1	1.8			1.7	Geomean log channel	Yes
167	4026	817	2140	2263	894	55548			2SD	Median log channel	No
169	MLC 324.45 NR 166	104.89 54	400.1 205	144.96 74	194.96	3298			Positive = NR>200	Mean log channel	No
176	SI 0.14 MESF 23996	-0.13 10687	0.05 18864	0.05 18535	0 16095	0.44 51249			SI≥0.30	MESF	No
186	2.7	0.9	1.7	2.3	1	30.5			2 fold the local negative	MFI log channel	No
190	452.7	71	151	190.8	76.9	884			Ratio sample/Neg >2.5		No
191	1.2	-29	-15	41	0	349			MFI >15	MFI	Yes
193	262.48	38.91	120.62	163.77	28.30	711.87			Neg control mean x2.5	Geometric mean linear channel	No
194	49%	12%	29%	22%	6%	100%			>18%		No
195	2711	219	750	1043	323	9213			Test/Neg control >1.35	Median log channel	Yes
201	5.17	1.21	1.94	3.73	0.62	94.6			x-mean ratio >2.5	x-mean	No
202	8.1	5.6	7.1	5.8	0.7	99.1			8% above the local neg control	Linear scale	
204	12	2.41	7.34	4.56	2.45	33.9			4.90 = 2x local neg control	Mena log channel	No
209											
218	12061	11232	7289	16373	7558	6293			7558x1.7 =12848.6	MFI	No
220	290.5	215.5	263	268.5	222.75		655	457	40 linear channel shift	Median linear channel	No
227	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
235	28.35	11.34	39.63	36.42	16.40	2890.26			±4SD	Median log channel	No
238	8152	2080	5060	5016	1864	82437			MESF serum/MESF neg control		No
245	29.3	-1.7	8.3	14.8	17.7	36			20 linear channel shift	Linear channel shift	Yes
246	97%	19.3%	85.5%	76.8%	7%	93.8%			30%		No
252	3.45	0.96	1.51	2.39	66	230			XM median/Neg median	Median channel ratio	No
262	Ratio 1.95 Lysis 275		1.4 12%		3026	29052			Ratio sample/Neg >2 or lysis >12%	Median log channel	No
268											No
271	551	228	396	501	234	509			106 log channel shift	Median log channel	No
283	-6.06	0.94	-15.79	-12.18	94.23	134.53			20 channel shift	Channel shift	No
284	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

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