

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

2B01/2019 OS				
T-cells	Serum 1	Serum 2	Serum 3	Serum 4
Total distributed	24	24	24	24
Total submitted	24	24	24	24
Not Tested	2	1	1	2
Negative	16	23	23	1
Positive	6	-	-	21
% Negative	72.7	100	100	4.5
% Positive	27.3	-	-	95.5
Consensus	-	Negative	Negative	Positive
Unacceptable	-	-	-	Negative
Number acceptable	-	23	23	21
Number unacceptable	-	0	0	1
Assessed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Lab	Serum 1	Serum 2	Serum 3	Serum 4
101	Negative	Negative	Negative	Positive
114	Negative	Negative	Negative	Positive
119	Negative	Negative	Negative	Positive
136	Not Tested	Negative	Negative	Not Tested
142	Negative	Negative	Negative	Positive
163	Positive	Negative	Negative	Positive
176	Negative	Negative	Negative	Positive
185	Negative	Negative	Negative	Positive
186	Positive	Negative	Negative	Positive
193	Negative	Negative	Negative	Positive
194	Negative	Negative	Negative	Positive
204	Negative	Negative	Negative	Positive
206	Positive	Negative	Negative	Positive
209	Positive	Negative	Negative	Positive
220	Positive	Negative	Negative	Positive
230	Positive	Negative	Negative	Positive
245	Negative	Negative	Negative	Positive
262	Negative	Negative	Negative	Positive
284	Negative	Negative	Negative	Positive
297	Negative	Negative	Negative	Positive
311				
315	Negative	Negative	Negative	Positive
358	Negative	Negative	Negative	Positive
374	Negative	Negative	Negative	Positive
401	Not Tested	Not Tested	Not Tested	Not Tested

Cytometer Reading				
Serum 1	Serum 2	Serum 3	Serum 4	
274	267	269	375	
0,171 MnlX	0,197 MnlX	0,192 MnlX	2,65 MnlX	
2	2	2		
178	174	174	963	
3,5	1,57	1,55	25,53	
0,05	0,02	0,04	0,8	
0,31	0,29	0,31	0,81	
0,79	0,56	0,57	6,3	
10,2	6,63	6,68	127,69	
0,69	0,52	0,5	6,2	
0,339	0,301	0,321	3,18	
2,14	0,73	0,82	7,41	
2,7	1,2	1,3	13,2	
12220	2685,5	1997,5	67429,5	
7,17	6,55	6,67	16,85	
0,3 linear channel shift	0,8 linear channel shift	0,8 linear channel shift	18,3 linear channel shift	
794	693	725	2565	
401	311	114	744	
219	107	149	994	

Cell viability	Units for cytometer readings	T-cell local neg control	T-cell local pos control	T-cell pos result value
0				
0	median channel	253	369	50 linear channel
90	MnlX	0,165	7,2	RATIO : POS> 1,285 (BORDERLINE UP TO 1,45)
98	Geo mean	2,1	50 NR =2381	NR > 200
94.5	Median Log Channel	181	3814	223 (181 + 3SD)
99	Geomean linear channel (serum /negative control)	1	21,86	2,3
0	MFI	0	0,15	> 0,4
0				
99	Mean fluorescence intensity-Log channel	0,35	2,08	NC + 2SD
100	Geo Mean	0,43	21,6	1.5 fold the local negative control
95	median	5,5	116,9	Ratio: geo mean of serum/geo mean of negative control >2,4
0	Mean log channel	0,44	11	ratio>2.2
90	MFI	0,32	7,08	0.48 = 1.5 x loc neg control
84	Geo mean (log channel) ratio over negative control	0,58	3,57	0.93 (1.6 x Negative Control)
96	linear acquisition, linear values	284	9,2 (2604)	3 SD (1.8)
90	MFI	1601,75	261752	6000 above the mean of the negative controls
100	linear channel shift	4,29	13,46	40 LCS
100	median channel shift	0,7 mean linear channel	70,8 linear channel shift	7 linear channel shift
100	median channel shift	680	8151	2SD and % positive cells
100	median log channel	344	534	sample serum / negative control ratio > 1,2 and > to local positive control
0	Fluorescence Mediane	131	409	1,8 x Tneg
0				
97,8	%			
0				
90				
0				

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

Lab Comments	Received	Tested	Assessment
101	03/04/2019	04/04/2019	100%
114	04/04/2019	05/04/2019	100%
119	03/04/2019	03/04/2019	100%
136 Tubes broken during the centrifugation. We lost the serum samples 1 and 4	03/04/2019	04/04/2019	100%
142	03/04/2019	08/04/2019	100%
163	04/04/2019	05/04/2019	100%
176 We have chosen to import the results, although the positive controls do not meet the established criteria. There were problems with "clots" in the positive control - especially at sample 2B01 / 2019	03/04/2019	05/04/2019	100%
185	03/04/2019	03/04/2019	100%
186	03/04/2019	03/04/2019	100%
193	03/04/2019	03/04/2019	100%
194	03/04/2019	03/04/2019	100%
204	03/04/2019	03/04/2019	100%
206	03/04/2019	04/04/2019	100%
209	02/04/2019	08/04/2019	100%
220	03/04/2019	04/04/2019	100%
230	04/04/2019	05/04/2019	100%
245	03/04/2019	04/04/2019	100%
262	03/04/2019	03/04/2019	100%
284	03/04/2019	03/04/2019	100%
297	03/04/2019	04/04/2019	100%
311 Withdrawn from Scheme 2B	0000-00-00	0000-00-00	Not assessed
315	03/04/2019	11/04/2019	100%
358	03/04/2019	03/04/2019	100%
374	10/04/2019	11/04/2019	66.70%
401 Sample delivery delay	0000-00-00	0000-00-00	Not assessed

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

2B01/2019 OS				
B-cells	Serum 1	Serum 2	Serum 3	Serum 4
Total distributed	23	23	23	23
Total submitted	23	23	23	23
Not Tested	1	1	1	1
Negative	18	21	13	1
Positive	4	1	8	21
Equivocal	-	-	1	-
% Negative	81.8	95.5	59.1	4.5
% Positive	18.2	4.5	36.4	95.5
% Equivocal	-	-	4.5	-
<b>Consensus</b>	<b>Negative</b>	<b>Negative</b>	<b>-</b>	<b>Positive</b>
Unacceptable	Positive	Positive	-	Negative
Number acceptable	18	21	-	21
Number unacceptable	4	1	-	1
Assessed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Lab	Serum 1	Serum 2	Serum 3	Serum 4	Cytometer Reading				Cell viability	Units for cytometer readings	B-cell local neg control	B-cell local pos control	B-cell pos result value
					Serum 1	Serum 2	Serum 3	Serum 4					
101	Negative	Negative	Negative	Positive					0				
114	Negative	Negative	Negative	Positive	418	430	451	511	0	median channel	402	556	60 linear channel
119	Negative	Negative	Negative	Positive	4,38 MnlX	4,54MnlX	4,16 MnlX	9,59 MnlX	90	MnlX	3,79	16,4	RATIO : POS>1,7 (BORDERLINE 1,5-1,7)
136									98	Geo mean			
142	Negative	Negative	Equivocal	Positive	795	624	1753	3965	94.5	Median Log Channel	1100	12349	1809 (1100 + 3SD)
163	Positive	Negative	Positive	Positive	2,05	1,12	2,07	4,10	99	Geomean linear channel (serum /negative control)	1	5,28	1,7
176	Negative	Negative	Positive	Positive	0.16	0.03	0.42	0.79	0	MFI	0	-0.07	>0.22
185	Negative	Negative	Negative	Positive	0.44	0.43	0.46	0.90	0		0.67	4.07	NC + 2SD
186	Negative	Negative	Positive	Positive	2.4	2.02	5.71	8.03	99	Mean fluorescence intensity-Log channel	1.65	45.3	2 fold the local negative control
193	Negative	Negative	Negative	Positive	83.82	64.02	103.98	220.34	100	Geo Mean	63.8	354.14	Ratio: geo mean of serum/geo mean of negative control >2.3
194	Negative	Negative	Negative	Positive	3.3	3	4.8	14	95	median	2.8	65	ratio>3.5
204	Negative	Negative	Positive	Positive	1.47	1.32	1.43	4.44	0	Mean log channel	0.812	18.9	1.623 = 2 x loc neg control
206	Positive	Negative	Positive	Positive	11.45	1.7	5.79	12.24	90	MFI	1.67	6.05	3.0 (1.8 x Negative Control)
209	Negative	Negative	Negative	Positive	1.7	1.1	2.1	3.3	84	Geo mean (log channel) ratio over negative control	2894	3.7 (10616)	3SD (2.1)
220	Positive	Negative	Positive	Positive	41093	6851.5	21898	65557	96	linear acquisition, linear values	3935	261842	6000 above the mean of the negative controls
230	Positive	Negative	Negative	Positive	7.84	4.74	5.91	18.11	90	MFI	4.96	18.94	40 LCS
245	Negative	Negative	Negative	Positive	near channel	near channel	linear channel	linear channel	100	linear channel shift	8 mean linear channel	150 linear channel shift	15 linear channel shift
262	Negative	Negative	Negative	Positive	2284	1921	2646	5887	100	median channel shift	2189	23810	2SD and % positive cells
284	Negative	Negative	Negative	Positive	653	515	295	891	100	median log channel	553	778	sample serum / negative control ratio > 1.2 and > to local positive control
297	Negative	Negative	Positive	Positive	650	337	789	2091	0	Fluorescence Mediane	369	1470	2xTneg
311									0				
315	Negative	Negative	Negative	Positive					97.8	%			
358	Negative	Negative	Negative	Positive					0				
374	Negative	Positive	Positive	Negative					90				
401	Not Tested	Not Tested	Not Tested	Not Tested					0				

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

Lab Comments	Received	Tested	Assessment
101	03/04/2019	04/04/2019	100%
114	04/04/2019	05/04/2019	100%
119	03/04/2019	03/04/2019	100%
136 Tubes broken during the centrifugation. We lost the serum samples 1 and 4	03/04/2019	04/04/2019	Not assessed
142	03/04/2019	08/04/2019	100%
163	04/04/2019	05/04/2019	66.70%
176 We have chosen to import the results, although the positive controls do not meet the established criteria. There were problems with "clots" in the positive control - especially at sample 2B01 / 2019	03/04/2019	05/04/2019	100%
185	03/04/2019	03/04/2019	100%
186	03/04/2019	03/04/2019	100%
193	03/04/2019	03/04/2019	100%
194	03/04/2019	03/04/2019	100%
204	03/04/2019	03/04/2019	100%
206	03/04/2019	04/04/2019	66.70%
209	02/04/2019	08/04/2019	100%
220	03/04/2019	04/04/2019	66.70%
230	04/04/2019	05/04/2019	66.70%
245	03/04/2019	04/04/2019	100%
262	03/04/2019	03/04/2019	100%
284	03/04/2019	03/04/2019	100%
297	03/04/2019	04/04/2019	100%
311 Withdrawn from Scheme 2B	0000-00-00	0000-00-00	Not assessed
315	03/04/2019	11/04/2019	100%
358	03/04/2019	03/04/2019	100%
374	10/04/2019	11/04/2019	33.30%
401 Sample delivery delay	0000-00-00	0000-00-00	Not assessed

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

2B02/2019 OS				
T-cells	Serum 1	Serum 2	Serum 3	Serum 4
Total distributed	24	24	24	24
Total submitted	24	24	24	24
Not Tested	1	2	1	2
Negative	22	-	23	17
Equivocal	1	-	-	-
Positive	-	22	-	5
% Negative	95.7	-	100	77.3
% Equivocal	4.3	-	-	-
% Positive	-	100	-	22.7

Consensus	Negative	Positive	Negative	Negative
Unacceptable	Equivocal	-	-	Positive
Number acceptable	22	22	23	17
Number unacceptable	1	0	0	5
Assessed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Lab	Serum 1	Serum 2	Serum 3	Serum 4
101	Negative	Positive	Negative	Negative
114	Negative	Positive	Negative	Negative
119	Equivocal	Positive	Negative	Positive
136	Negative	Not Tested	Negative	Negative
142	Negative	Positive	Negative	Negative
163	Negative	Positive	Negative	Positive
176	Negative	Positive	Negative	Negative
185	Negative	Positive	Negative	Negative
186	Negative	Positive	Negative	Positive
193	Negative	Positive	Negative	Negative
194	Negative	Positive	Negative	Negative
204	Negative	Positive	Negative	Negative
206	Negative	Positive	Negative	Positive
209	Negative	Positive	Negative	Positive
220	Negative	Positive	Negative	Negative
230	Negative	Positive	Negative	Negative
245	Negative	Positive	Negative	Negative
262	Negative	Positive	Negative	Negative
284	Negative	Positive	Negative	Negative
297	Negative	Positive	Negative	Not Tested
311				
315	Negative	Positive	Negative	Negative
358	Negative	Positive	Negative	Negative
374	Negative	Positive	Negative	Negative
401	Not Tested	Not Tested	Not Tested	Not Tested

Cytometer Reading				
Serum 1	Serum 2	Serum 3	Serum 4	
215	350	206	212	
0,251 MniX	8,65 MniX	0,201 MniX	0,295 MniX	
3		2.3	3.7	
217	1704	194	238	
1.81	68.42	1.29	3.75	
0.02	0.86	0.08	0.11	
0.46	1.08	0.47	0.47	
0.56	4.84	0.46	0.74	
9.66	257.9	6.7	14.37	
0.61	6	0.5	0.64	
0.301	7.89	0.318	0.377	
0.85	19.21	0.8	1.75	
1.4	40.4	1.2	2.8	
2341.5	182829.5	1834	7042	
8.13	21.1	8.98	9.6	
0.5 linear channel shift	24 linear channel shift	0 linear channel shift	3 linear channel shift	
607	4093	682	813	
317	1165	327	247	
194	3006	156		

Cell viability	Units for cytometer readings	T-cell local neg control	T-cell local pos control	T-cell pos result value
0				
0	median channel	212	295	50 median channel
90	MniX	0,176 MniX	14,4 MniX	RATIO - POS> 1.285 (BORDERLINE >1.45)
98	Geo Mean	2.8	69	NR>200 NR(Relative Number) = (Mean Channel sample/Mean Channel Negative Control)x100
90.4	Median Log Channel	228	3090	273 (228 + 3SD)
99	Geomean linear channel (serum /negative control)	1	9.68	2.3
0	MFI	0	0.69	0.4
0		0.45	0.85	NC + 2SD
99	Mean fluorescence intensity-Log channel	0.37	2.5	1.5 fold the local negative control
100	Geo Mean	5.99	139.85	Ratio: geo mean of serum/geo mean of negative control >2.4
95	median	0.5	4.6	ratio>2.2
0	Mean log channel	0.317	11.7	0.475 = 1.5 loc neg control
90	MFI	0.65	1.64	1.04 (1.6 x Negative Control)
87	Geometric mean (log channel) ratio over negative	α318	6 (1918)	3SD (1.8)
96	linear acquisition, linear analysis	1811.75	195123	6000 above the mean of the negative controls
90	MFI	6.67	13.46	40 LCS
100	linear channel shift	0.5 mean linear channel	127.5 linear channel shift	7 linear channel shift
100	median channel shift	633	8130	2SD and % positive cells > 12
100	Median log channel	317	382	sample serum / negative control ratio > 1.2 and > to local positive control
0	Fluorescence Median	152	399	1.8xTneg
0				
97.8				
0				
90				
0				

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

Lab Comments	Received	Tested	Assessment
101	03/04/2019	04/04/2019	100%
114	04/04/2019	05/04/2019	100%
119	03/04/2019	03/04/2019	50%
136 The tube broken during centrifugation. We lost serum sample 2	03/04/2019	04/04/2019	100%
142	03/04/2019	08/04/2019	100%
163	04/04/2019	05/04/2019	75%
176	03/04/2019	05/04/2019	100%
185	03/04/2019	03/04/2019	100%
186	03/04/2019	03/04/2019	75%
193	03/04/2019	03/04/2019	100%
194	03/04/2019	03/04/2019	100%
204	03/04/2019	03/04/2019	100%
206	03/04/2019	04/04/2019	75%
209	02/04/2019	08/04/2019	75%
220	03/04/2019	04/04/2019	100%
230	04/04/2019	05/04/2019	100%
245	03/04/2019	04/04/2019	100%
262	03/04/2019	03/04/2019	100%
284	03/04/2019	03/04/2019	100%
297 For T cells/serum 4, the sample was assigned "not tested" because of technical issue	03/04/2019	04/04/2019	100%
311 Withdrawn from Scheme 2B	0000-00-00	0000-00-00	Not assessed
315	03/04/2019	11/04/2019	100%
358	03/04/2019	03/04/2019	100%
374	10/04/2019	11/04/2019	100%
401 Sample delivery delay	0000-00-00	0000-00-00	Not assessed

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

2B02/2019 OS				
B-cells	Serum 1	Serum 2	Serum 3	Serum 4
Total distributed	23	23	23	23
Total submitted	23	23	23	23
Not Tested	2	1	2	2
Positive	14	22	17	19
Negative	7	-	4	2
% Positive	66.7	100	81	90.5
% Negative	33.3	-	19	9.5

Consensus	-	Positive	Positive	Positive
Unacceptable	-	-	Negative	Negative
Number acceptable	-	22	17	19
Number unacceptable	-	0	4	2
Assessed by	<a href="#">[i]</a>	<a href="#">[i]</a>	<a href="#">[i]</a>	<a href="#">[i]</a>

Lab	Serum 1	Serum 2	Serum 3	Serum 4
101	Positive	Positive	Positive	Positive
114	Negative	Positive	Negative	Negative
119	Positive	Positive	Negative	Positive
136				
142	Negative	Positive	Positive	Positive
163	Positive	Positive	Positive	Positive
176	Negative	Positive	Positive	Negative
185	Negative	Positive	Negative	Positive
186	Negative	Positive	Positive	Positive
193	Positive	Positive	Positive	Positive
194	Negative	Positive	Positive	Positive
204	Positive	Positive	Positive	Positive
206	Positive	Positive	Positive	Positive
209	Positive	Positive	Positive	Positive
220	Positive	Positive	Positive	Positive
230	Positive	Positive	Positive	Positive
245	Positive	Positive	Positive	Positive
262	Positive	Positive	Positive	Positive
284	Negative	Positive	Negative	Positive
297	Positive	Positive	Positive	Positive
311				
315	Not Tested	Positive	Not Tested	Not Tested
358	Positive	Positive	Positive	Positive
374	Positive	Positive	Positive	Positive
401	Not Tested	Not Tested	Not Tested	Not Tested

Cytometer Reading				
Serum 1	Serum 2	Serum 3	Serum 4	
434	519	418	446	
8,47 MniX	31,9 MniX	7,01 MniX	13,7 MniX	
792	12771	3386	3617	
4,49	16,55	3,44	8,26	
-0,11	0,6	0,23	0,07	
0,48	1,64	0,44	0,71	
1,09	9,2	4,74	7,08	
197,11	1094,17	202,79	391,68	
8,5	25	10,2	14	
3,61	16,5	3,54	6,08	
9,35	51,83	20,84	23,34	
4	25	4,4	9,4	
19949	261709,5	134326,5	261668	
14,46	44,31	33,68	36,85	
19,5 linear channel shift	76,5 linear channel shift	28 linear channel shift	35 linear channel shift	
3850	9449	4101	5506	
590	2137	709	1196	
2461	7728	1966	2935	

Cell viability	Units for cytometer readings	B-cell local neg control	B-cell local pos control	B-cell pos result value
0				
0	median channel	397	462	60 median channel
90	MniX	3,59 MniX	53,1 MniX	RATIO : POS>1,7 (BORDERLINE 1,5-1,7)
98	Geo Mean			
90,4	Median Log Channel	762	9523	1117 (762 + 3SD)
99	Geomean linear channel (serum /negative control)	1	4,10	1,7
0	MFI	0	0,56	0,22
0		0,38	1,66	NC + 2SD
99	Mean fluorescence intensity-Log channel	0,98	30	2 fold the local negative control
100	Geo Mean	72,48	463,77	Ratio: geo mean of serum/geo mean of negative control >2.3
95	median	2,84	53	ratio>3.5
0	Mean log channel	0,893	18	1,786 = 2 x loc neg control
90	MFI	1,47	7,94	2,65 (1.8 x Negative Control)
87	Geometric mean (log channel) ratio over negative	c2325	3,3 (7623)	3SD (2,1)
96	linear acquisition, linear analysis	3021	261439	6000 above the mean of the negative controls
90	MFI	5,12	19,99	40 LCS
100	linear channel shift	6,5 mean linear channel	244,5 linear channel shift	15 linear channel shift
100	median channel shift	1887	15293	2SD and % positive cells > 12
100	Median log channel	478	749	sample serum / negative control ratio > 1,2 and > to local positive control
0	Fluorescence Median	671	1752	2xTneg
0				
97,8				
0				
90				
0				

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

Lab Comments	Received	Tested	Assessment
101	03/04/2019	04/04/2019	100%
114	04/04/2019	05/04/2019	33.30%
119	03/04/2019	03/04/2019	66.70%
136 The tube broken during centrifugation . We lost serum sample 2	03/04/2019	04/04/2019	Not assessed
142	03/04/2019	08/04/2019	100%
163	04/04/2019	05/04/2019	100%
176	03/04/2019	05/04/2019	66.70%
185	03/04/2019	03/04/2019	66.70%
186	03/04/2019	03/04/2019	100%
193	03/04/2019	03/04/2019	100%
194	03/04/2019	03/04/2019	100%
204	03/04/2019	03/04/2019	100%
206	03/04/2019	04/04/2019	100%
209	02/04/2019	08/04/2019	100%
220	03/04/2019	04/04/2019	100%
230	04/04/2019	05/04/2019	100%
245	03/04/2019	04/04/2019	100%
262	03/04/2019	03/04/2019	100%
284	03/04/2019	03/04/2019	66.70%
297 For T cells/serum 4, the sample was assigned "not tested" because of technical issue	03/04/2019	04/04/2019	100%
311 Withdrawn from Scheme 2B	0000-00-00	0000-00-00	Not assessed
315	03/04/2019	11/04/2019	100%
358	03/04/2019	03/04/2019	100%
374	10/04/2019	11/04/2019	100%
401 Sample delivery delay	0000-00-00	0000-00-00	Not assessed