

UK NEQAS FOR H&I SCHEME 3 - HLA SPECIFICITY ANALYSIS

Samples 306-310/2017 DESPATCHED ON 13TH JUNE 2017

COMPLEMENT DEPENDENT CYTOTOXICITY (CDC) TECHNIQUE INFORMATION

Lab No	Technique	Cell source	Frozen trays	In-house/ Commercial	Panel		Complement source	Volume added (µl per well)				Incubation		Dead cell visualisation	Analysis Procedures	Software Manufacturer	Comments
					Composition	Size		Cells	Sera	Complement	DTT	Pre-C'	Post-C'				
20 42	NIH	B-cells	No		Random		Commercial	1	1	5	1	30+30	45	EB/AO	Computerised	In-house	
116	NIH	B-cells	Yes	Biorad	Selected	26	Biorad		2	5		60	140	EB/AO	Manual		
206	NIH	PBL	Yes	In-house	Selected		Cedarlane	1	1	6.6	1	30	90	Fluoroquench	Manual0		
268																	

EB - ethidium bromide
AO - acridine orange
PI - propidium iodide
Hb - haemoglobin
CFDA - carboxyfluorescein diacetate

FLOW CYTOMETRY TECHNIQUE INFORMATION

Lab No	Flow Cytometer Model	Cell		Conjugate	Manufacturer	Software	Manufacturer
		preparations (number)	source				
165 222	FACS Canto II	(32)	One Lambda FlowPRA™				

ELISA TECHNIQUE INFORMATION

Lab No	ELISA kit used	Batch No	Manufacturer	ELISA kit used	Batch No	Manufacturer	ELISA kit used	Batch No	Manufactu	Comments
117	LAT1288	007	One Lambda							
165										

- Denotes 2017 methodology/No methodology received

UK NEQAS FOR H&I SCHEME 3 - HLA SPECIFICITY ANALYSIS

Samples 306-310/2017 DESPATCHED ON 13TH JUNE 2017

LUMINEX TECHNIQUE INFORMATION

Lab No	Kit used	Used for	Batch no.	Bead vol (µl)	Serum vol (µl)	Negative Control	Serum	Details of +/- cut off	Kit used	Batch no.	Bead vol (µl)	Serum vol (µl)	Negative Control	Serum	Details of +/- cut off	Kit used	Batch no.	Bead vol (µl)	Serum vol (µl)	Negative Control	Serum	Details of +/- cut off	
	All/Selected	Criteria				Source							Source							Source			
9	LS1A04	ALL	010	2	20	Manufacturer		500	LS2A01	012	2.0	20	Manufacturer		500								
11	LS1A04	Selected	010	1.5	8	Manufacturer		1000	LS2A01	012	1.5	8	Manufacturer		1000	LSM12	021	2	8	Manufacturer		Ratio 2.5	
12	LS1A04	ALL	010	3	20	Manufacturer			LS2A01	012	3	20	Manufacturer										
14	LS1A04	ALL	010	2	10	Manufacturer			LS2A01	12	2	10	Manufacturer		1500								
15	LS1A04	ALL	010	2	8	Manufacturer	MAN	1000	LS2A01	011	2	8	Manufacturer	MAN	1000								
19	LS1A04	ALL	010	2	8	In House		1000	LS2A01	12	2	8	In House		1000								
20	LS1A04	ALL	010	2.5	10	Manufacturer	LOT 19	1000	LS2A01	12	2.5	20	Manufacturer	LOT 19	1000								
23	LS1A04	ALL	010	3.0	12	Manufacturer		1000	LS2A01	012	3.0	12	Manufacturer		1000	LSM12	021	5	14	Manufacturer		Ratio 4.5, 4.5	
24	LS1A04	Selected	010	2.5	10	Manufacturer	Mixed/ PRA positive	1000	LS2A01	012	2.5	10	Manufacturer		1000	LSM12	021	5	20	Manufacturer		7.0/6.0	
25	LS1A04	ALL	010	3.0	12	Manufacturer		1000	LS2A01	012	3.0	12	Manufacturer		1000	LSM12	021	5	20	Manufacturer		1500	
26	LS1A04	Selected	010	2	8	Manufacturer	Positive LSM12	Rx6 as a guide	LS2A01	012	2	8	Manufacturer		Rx6 as a guide	LSM12	021	2.5	20	Manufacturer			
27	LS1A04	ALL	010	2	8	Manufacturer		500	LS2A01	188655	3	20	Manufacturer		500								
34	LS1A04	ALL	010	2	8	Manufacturer		1000	LS2A01	012	2	8	Manufacturer		1000								
35	LS1A04	ALL	010	2	8	Manufacturer		1000	LS2A01	012	2	8	Manufacturer	019	1000	LSM12	021	2	8	Manufacturer	019	1000	
36	LS1A04	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000	LSAII	3005612	20	10	Manufacturer		1000	
38	LS1A04	ALL	010	2.0	8.0	Manufacturer	For testing of multi positive samples	-1500	LS2A01	012	2.0	8.0	Manufacturer		-1500								
39	LS1A04	Selected	010	2.0	8.0	Manufacturer																	
41	LS1A04	ALL	010	5	20	Manufacturer		2000	LS2A01	012	5	20	Manufacturer		2000								
42	LS1A04	ALL	010	2	8	Manufacturer		1500	LS2A01	LSAI	3005909	20	8	Manufacturer		1500	LSM12	LSAII	3005996	20	8	Manufacturer	None
45	LS1A04	ALL	10	2	8	Manufacturer	Lab alternates between different manufacturers	1500 (taken with clinical history)	LSAII					Manufacturer		None							
48	LS1A04	ALL	010	2	8	Manufacturer		750-1000	LS2A01	012	2	8	Manufacturer		750-1000								
51	LS1A04	ALL	010	2.5	10	Manufacturer		1000	LS2A01	012	2.5	10	Manufacturer		1000	LSM12							
54	LS1A04	ALL	011	2.5	10	Manufacturer		>1500	LS2A01	012	2.5	10	Manufacturer		>1500	LSAII	3005996	20	10	Manufacturer		>750	
58	LS1A04	ALL	010	4	10	Manufacturer		Software Derived	LSAII	3006250	40	10	Manufacturer		Software Derived								
60	LSA1	ALL	3006346	40	10	Manufacturer		500	LSAII	3005949	40	10	Manufacturer	Commercial	500								
62	LSA1	ALL	3005842	40	10	Manufacturer	Commercial	1000	LS2A01	011	2.5	10	Manufacturer		1000								
100	LSA1	ALL	010	2.5	10	Manufacturer		1000	LS2A01	012	2.5	10	Manufacturer		1000	LSM12	021	2.5	20	Manufacturer			
102	LSA1	ALL	010	5	20	Manufacturer		MFI >500	LS2A01	012	5	20	Manufacturer		MFI >500	LSM12	021	5	20	Manufacturer		1.5 Ratio	
104	LSA1	ALL	010	5	20	Manufacturer	Positive LSM 12	1000	LS2A01	11	5	20	Manufacturer		1000								
106	LSA1	ALL	010	5	20	Manufacturer	CI I >5MFI	500MFI	LS2A01	012	5	20	Manufacturer	No negative control used	500MFI								
108	LSA1	ALL	010	4	10	Manufacturer		500	LSAII	40	10	10	Manufacturer		500								
110	LSA1	ALL	010	2.5	10	Manufacturer		1000	LS2A01	012	2.5	10	Manufacturer		1000								
112	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
114	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
116	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
118	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
120	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
122	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
124	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
126	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
128	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
130	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
132	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
134	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
136	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
138	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
140	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
142	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
144	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
146	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
148	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
150	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
152	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
154	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
156	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
158	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
160	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
162	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
164	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
166	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
168	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
170	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
172	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
174	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
176	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
178	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								
180	LSA1	ALL	010	5	20	Manufacturer		1000	LS2A01	012	5	20	Manufacturer		1000								

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LUMINEX TECHNIQUE INFORMATION

Lab No	Kit used	Used for All/Selected	Criteria	Batch no.	Bead vol (µl)	Serum vol (µl)	Negative Control Source	Serum Details	Details of +/- cut off	Kit used	Batch no.	Bead vol (µl)	Serum vol (µl)	Negative Control Source	Serum Details	Details of +/- cut off	Kit used	Batch no.	Bead vol (µl)	Serum vol (µl)	Negative Control Source	Serum Details	Details of +/- cut off	Kit used	Batch no.	Bead vol (µl)	Serum vol (µl)	Negative Control Source	Serum Details	Details of +/- cut off
9																														
11																														
12																														
14																														
15																														
16																														
20																														
23																														
24	LS1PRA	ALL		017	3.5	14	Manufacturer		1000	LS2PRA	016	3.5	14	Manufacturer		1000	LSAI	3005842	20	5	Manufacturer	1500, BCR 3, AD-BCR 4	LSAII	3005930	20	5	Manufacturer	1500, BCR 3, AD-BCR 4		
25	LSAI	ALL		08256N	20	5	Manufacturer		1500	LSAII	09156A	20	5	Manufacturer		1500														
26	LSMUTR	Selected	Donors	008	5	20	Manufacturer		Varies																					
34																														
35																														
38	LSAII	ALL		11236A	20	10	Manufacturer		1000																					
39																														
41																														
42																														
45																														
48	LM1	ALL		3005614	2	8	Manufacturer		None	LM2	3005268	2	8	Manufacturer		None	LS2A01	012	2	8	Manufacturer	1500 (taken with clinical history)	LSM12	021	3	12			None	
51																														
54																														
58																														
62	LSAI	ALL		3006129	20	10	Manufacturer		>750																					
100																														
112																														
114																														
116																														
117																														
119																														
120																														
133																														
136																														
142																														
143																														
145																														
149																														
157																														
160																														
162																														
165																														
169																														
181																														
185	LMX	ALL			5	12.5	Manufacturer	Manufacturer		LSAI		40	10	Manufacturer		ADJ. Val >2	LSAII		40	10	Manufacturer								ADJ. Val >2	
194																														
195																														
197																														
206																														
212																														
214																														
216																														
218																														
222																														
227	LM1	ALL			5	12.5	Manufacturer	Raw 1000		LM2		5	12.5	Manufacturer		Raw 1000														
229																														
230																														
232																														
242																														
252																														
267																														
268	LS1PRA				5	20		2000		LS2PRA		5	20		2000															
273																														
277																														
284																														
292																														
293																														
294																														
302																														
303																														
309																														
351																														
361																														
362																														

Lifecodes	One Lambda
LM1	Class I ID Kit
LM2	Class II ID Kit
LMX	Lifecodes Lifescreen Deluxe Kit
LSAI	Lifecodes Lifescreen SA Class I
LSAII	Lifecodes Lifescreen SA Class II
LSAI&II	Lifecodes Lifescreen SA Class I&II
LSAMIC	Lifecodes Lifescreen SA MICA
LS1PRA	LABScreen PRA Class I
LS2PRA	LABScreen PRA Class II
LS12PRA	LABScreen PRA Class I&II
LS1AD4	LS SA Class I
LS2A01	LS SA Class II
LSM12	LS Mixed Class I&II
LSMUTR	LABScreen Multi

Note: UK NEQAS for H&I have used participant and manufacturer's information to aid consistency with methodological information. Please report any errors to Deborah Pritchard on UKNEQASHandl@wales.nhs.

UK NEQAS FOR H&I SCHEME 3 - HLA SPECIFICITY ANALYSIS

Samples 306-310/2017

DESPATCHED ON 13TH JUNE 2017

LUMINEX TECHNIQUE INFORMATION

Lab No	Positive control serum for Luminex testing?	Source	1.2 Positive control serum				1.3			1.4 Serum treatment		1.5 Incubation times	Wash medium	Anything added	1.6 Wash step details				Software	Min bead count	1.7 Data analysis			
			Every run?	If no:	Same serum?	If no:	Samples stored prior to testing?	Conditions?	Storage time? (hours)	Methods used?	Criteria?				Washes	Volume (µl)	Washes	Volume (µl)			Buffer removed by	Min pos control bead MFI	High background criteria	
9	Yes	Sensitised Patient	No	Included once a week in batches	Yes		Sometimes	>20	>48	Dilution	Selected Samples	High background, high NC, multispecific with high MFI values	Manufacturer's Instructions	Supplied	No	5	200	5	200	Vacuum Manifold	HLA Fusion	50	500	High NC
11	Yes	Pooled sensitised patient sera	Yes		No	Separate controls for LSM12, SABs Class I and II	Always	-40	>48	Adsorption Beads/EDTA	Selected Samples	Adsorb out used on samples with NC >1000	Manufacturer's Instructions	Supplied	No	3	200	2	200	Centrifuge	HLA Fusion	50	1000	>1000
12	Yes	Sensitised Patient	Yes		No	Positive control sera tested with mixed bead assay. Not single antigen assay	Sometimes	-25	24-48	Adsorption Beads, EDTA, Dilution	Selected Samples	Samples with high background not removed by treatment with adsorb out	Manufacturer's Instructions	Supplied	No	5	175	5	175	Vacuum Manifold	HLA Fusion, xPONENT	50	1000	NC >500
14	Yes	Sensitised Patient	Yes		No	Sensitised patient control sera for each kit	Sometimes	-20	>48	Heat inactivation, EDTA			Manufacturer's Instructions	Supplied	EDTA	3	200	2	200	Centrifuge	HLA Fusion	50	5000	Neg MFI >500 or Pos/Neg Ratio <2
15	Yes	Pooled HSP sera	Yes		Yes		Yes	4	>48	Adsorption Beads, EDTA	Selected Samples		Manufacturer's Instructions	Supplied	EDTA	5	200	5	200	Vacuum Manifold	HLA Fusion	50	PC/NC >2	NC >1500
19	Yes	Sensitised Patient	Yes		No	Specific sera selected relevant to kit used	Yes	-80	>48	Adsorption Beads, EDTA		AO used when high background (MFI >500)	Manufacturer's Instructions	Supplied	No	5	175	5	175	Vacuum Manifold	HLA Fusion	50	2000	MFI >500
20	Yes	Sensitised Patient	Yes		No	Specific sera selected relevant to kit used	Yes	-80	>48	Adsorption Beads, EDTA		Adsorb if NC >1500	Manufacturer's Instructions	Supplied	No	2	200	3	200	LabXpress	HLA Fusion	50	500	1500
23	Yes	Pool of sensitised patients diluted 1 in 8	Yes		Yes		Always	4	>48	Adsorption Beads, EDTA	Selected Samples	Adsorb samples with high background, EDTA added only for single antigen testing	Manufacturer's Instructions	Supplied	No	One Lambda:5 Immucor:4	One Lambda:200 Immucor:1x100, 3x250	One Lambda:5	200	Vacuum Manifold	HLA Fusion, MatchIT	50	3000	NC >500
24	Yes	Sensitised Patient	Yes		Yes		Sometimes	-20/2-8	>48	Adsorption Beads, EDTA	Selected Samples		Manufacturer's Instructions	Supplied	No	5	220	5	220	Vacuum Manifold	HLA Fusion	50	>500 and at least twice the NC	NC >500
25	Yes	Immucor positive control	No	Only included in Immucor SAB runs	No	Only included in Immucor SAB runs	Sometimes	-30	24-48	Adsorption Beads, EDTA	Selected Samples	Treatment with seraclean if NC >500	Manufacturer's Instructions	Supplied	No	5	200	5	200	Vacuum Manifold	Fusion 4.1	50	5000	NC >500
26	Yes	Mix of sensitised patient sera	Yes		Yes		Sometimes	Frozen/Fridge (varies)	24-48	Adsorption Beads, EDTA, Dilution			Manufacturer's Instructions	Supplied	No	4	1 x 100 x 275	3	1 x 100 x 275	Vacuum Manifold	Fusion 3	20	5000	NC >500
28	Yes	Sensitised patient sera	Yes		Yes		Yes	Frozen (-20)	>48	N/A			Manufacturer's Instructions	Supplied	EDTA	5	200	5	200	Vacuum Manifold	Fusion 3	20	5000	NC >500
34	Yes	Sensitised Patient sera for One Lambda kits	Yes		No	Different pos con for Labscreen and Sag kits from One Lambda	Always	-40/4	24-48	EDTA			Manufacturer's Instructions	Supplied	EDTA	5	200	5	200	Vacuum Manifold	Fusion 3	20	5000	NC >500
35	Yes	Sensitised Patient sera	Yes		Yes		No		>48	Adsorption Beads/EDTA	Selected Samples		Manufacturer's Instructions	Supplied	EDTA	3	200	2	200	Centrifuge	Fusion 3	50	500	Adsorb Out
38	No						Sometimes	-30	>48	EDTA		Modified Halifax protocol	Manufacturer's Instructions	Supplied	No	2	200	2	200	Centrifuge	HLA Fusion, MatchIT	80	1500	500
39	Yes		Yes		Yes		Always	2-8	>48	Adsorption Beads/EDTA	Selected Samples		Manufacturer's Instructions	Supplied	EDTA	5	200	5	200	Vacuum Manifold	HLA Fusion	50	5000	NC >500
41	Yes	In house pooled sensitised sera	No	On receipt of new delivery	No	Neat used for single antigen beads, 1:400 dilution used for screening beads	Always	-80	>48	Adsorption Beads/EDTA	Selected Samples	NC >1500	Manufacturer's Instructions	Supplied	No	4	200	3	200	Vacuum Manifold	Fusion 3	50	5000	>1500
42	Yes		Yes		Yes					Adsorption Beads/EDTA	All Samples		Manufacturer's Instructions	Supplied	No	4	200	4	200	In House Software	HLA Fusion, MatchIT	50	5000	500
45	Yes		Yes		No	Pooled positive control is only used for Labscreen Mixed Class I and II antibody testing	Sometimes	-20	24-48	Adsorption Beads/EDTA	Selected Samples	High background - Seraclean beads Heat inactivation - for use on Labscreen single antigen beads only	Manufacturer's Instructions	Supplied	No	3	250	3	150, then 2x at 250 (Labscreen only)	Vacuum Manifold	HLA Fusion, MatchIT	50	1000 for Labscreen mixed and single antigen beads, 1000 for Lifecodes C1 and 2, 2000 for Lifecodes single antigen beads	Sample with a negative control over 1000 for Labscreen, and the users discretion taking into account the manufacturer's suggested ranges for Lifecodes
51	Yes	Sensitised patient sera	No	Only used in LSM12 mixed bead assay, not used in single antigen assays	Yes	However, different pos control is used for IgM antibody testing	Always	-20	>48	Adsorption Beads/EDTA	Selected Samples	Samples giving high background are retested with Adsorb Out beads	Manufacturer's Instructions	Supplied	No	3	200	3	200	Centrifuge	HLA Fusion	40	1500	>750
54	Yes	Manufacturer/In house sensitised patient sera	Yes		No	Labscreen mixed - manufacturer and in house patient sera, Labscreen SA manufacturer only	Always	-15 to -20	>48	EDTA, Foetal calf serum added to 5% of total serum volume		EDTA treatment used for all SA testing. Foetal calf serum used to treat high background serum samples on second round testing	Manufacturer's Instructions	Supplied	No	5	150	5	150	Vacuum Manifold	HLA Fusion	40	>5000	Labscreen Mixed >500, Labscreen SA >1500
62	Yes	Pool of highly sensitised patient sera/control provided with kit (Immucor)	Yes		No	In house positive control for One Lambda kits and control provided with the Immucor kit	Always	-70/2-8	24-48	Adsorption Beads			Manufacturer's Instructions	Supplied	No	5	200	5	200	Vacuum Manifold	Fusion 3.0, MatchIT	50	5000	>500
100	Yes	Manufacturer	Yes		No	Positive control is assay specific	Always	-20	>48				Manufacturer's Instructions	Supplied	No	3	250			Vacuum Manifold	MatchIT	50	2000 with control serum	MFI > range for NC bead
112	Yes	Patient sensitised sera with low MFI value	Yes		No	One with each class	Yes	-20	>48	N/A			Manufacturer's Instructions	Supplied	No	1	100	3	250	Vacuum Manifold, Centrifuge	HLA Fusion, MatchIT	60 Immucor, 100 One Lambda	12000 Immucor	Bead NC >3000
114	Yes	Sensitised patient sera	Yes		Yes		Sometimes	-20	24-48	EDTA			Manufacturer's Instructions	Supplied	No	3	160	2	160	Centrifuge	HLA Fusion	50	PC >1500	NC >500
116	No						Always	-20	>48	Adsorption Beads			Manufacturer's Instructions	Supplied	No	3	200	2	200	Centrifuge	HLA Fusion	50		NC >800

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117	No					Always	-65	>48	Adsorption Beads		Manufacturer's Instructions	Supplied	No	3	200	3	200	Centrifuge	HLA Fusion	15	500	NC: 300-400
119	No					Yes	-20	>48	Adsorption Beads/EDTA		Manufacturer's Instructions	Supplied	EDTA	3	200	3	200	Centrifuge	HLA Fusion	50	100MFI	NEG >500
120	No	No	No	No		Always	-20	24-48	Adsorption Beads/Dilution	Adsorption carried out when NC >500 and/or PC <4000. Dilution 1/8 carried out when adsorption is not sufficient to allow test validation according to PC/NC quality values	Manufacturer's Instructions	Supplied	No	3	1x150, 2x200	2	200	Centrifuge	Fusion 4.1	50	4000	NC >500
133	Yes	Manufacturer	Yes	Yes		Yes	-20	>48	Adsorption Beads/Heat Inactivation		Manufacturer's Instructions	Supplied	No	3	250			Vacuum Manifold	MatchIT	60	1000, for single antigen - 2000	For screening - 1000 For single antigen - 300
136		Sensitised patient sera	No	No		No		<24	Adsorption Beads		Manufacturer's Instructions	Supplied	No	3	150	2	150	Centrifuge	HLA Fusion	50	>1000	>500
142	Yes	Manufacturer	Yes	No	Anti-HLA Class I with LS1A04, Anti HLA Class II with LSZA01	Sometimes	-20	24-48	EDTA		Manufacturer's Instructions	Supplied	No	5	175	5	175	Vacuum Manifold	HLA Fusion	50	500	NC >1500
143	No					Always	-20	>48			Manufacturer's Instructions	Supplied	No	3	150/200/200	2	200	Centrifuge	HLA Fusion	100	3000MFI	NC >1500MFI
145	No					Yes	-20	>48			Manufacturer's Instructions	Supplied	No	1	100	3	250	Vacuum Manifold	MatchIT EXE	60	10000	High CON 1
149	Yes	Individuals shown to be alloimmunized to HLA antigens	Yes	No	According to current LOT number	Always	4	24-48	N/A		Manufacturer's Instructions	Supplied	No	1	100	3	250	Vacuum Manifold	MatchIT EXE	60	10000	High CON 1
157						Always	4-6	>48	Adsorption Beads		Manufacturer's Instructions	Supplied	No	3	150/200/200	2	200	Centrifuge	HLA Fusion	100	5000MFI	
162						Always		<24			Manufacturer's Instructions	Supplied	No	2	150	2	150	Centrifuge	HLA Fusion	100	500	
165	Yes	Sensitised patient sera	Yes	No		Always	2-8	24-48			Manufacturer's Instructions	Supplied	No	2	150	2	150	Centrifuge	HLA Fusion	100	500	
169	Yes	In House pool	Yes	Yes		Always	-20	24-48	Adsorption/EDTA		Manufacturer's Instructions	Supplied	No	3	250			Vacuum Manifold	MatchIT	690	Not defined, relative to standard PC provided by manufacturer	Manufacturer ranges
181	Yes		Yes	Yes		Always	-25	24-48			Manufacturer's Instructions	Supplied	No	3	250			Vacuum Manifold	MatchIT	690	Not defined, relative to standard PC provided by manufacturer	Manufacturer ranges
185	Yes		Yes	Yes		Always	-25	24-48			Manufacturer's Instructions	Supplied	No	3	250			Vacuum Manifold	MatchIT	690	Not defined, relative to standard PC provided by manufacturer	Manufacturer ranges
194																						
195	Yes	Sensitised patient sera	Yes	No		Yes	Frozen	>48			Manufacturer's Instructions	Supplied	No	5	175	5	175	Vacuum Manifold	HLA Fusion	100	5000	>500
197						Yes	Frozen	<24	Dilution		Manufacturer's Instructions	Supplied	No	3	250			Vacuum Manifold	MatchIT	60	>10000	>1000
206			Yes	Yes		Yes	Frozen	<24	Dilution		Manufacturer's Instructions	Supplied	No	3	250			Vacuum Manifold	MatchIT	60	>10000	>1000
212			Yes	Yes		Yes	Frozen	<24	Dilution		Manufacturer's Instructions	Supplied	No	3	250			Vacuum Manifold	MatchIT	60	>10000	>1000
214			Yes	Yes		Yes	Frozen	<24	Dilution		Manufacturer's Instructions	Supplied	No	3	250			Vacuum Manifold	MatchIT	60	>10000	>1000
216	Yes	Manufacturer	Yes	No	Kit-specific controls used, supplied by the manufacturer	Sometimes	Frozen/Fridge	24-48/>48	N/A		Manufacturer's Instructions	Supplied	No	3	250	1	150	Vacuum Manifold	MatchIT	100	5000	
218	Yes	Manufacturer	Yes	Yes		Sometimes	-80	>48	Adsorption/Heat Inactivation		Manufacturer's Instructions	Supplied	No	4	100-200			Vacuum Manifold	MatchIT	100	>10000	High reaction on CON beads, high MFIs without the beads being called positive by the software, or when most of the beads in the well have high MFIs or high adjusted values
222						Always	-40	>48	Adsorption/EDTA/ Dilution	Only samples with high background are treated with adsorption beads	Manufacturer's Instructions	Supplied	No	5	175	5	175	Vacuum Manifold	HLA Fusion	50	PC >500 PC/NC >5	NC >500
227	Yes	Manufacturer, sensitised patient sera	Yes	Yes		Always	-40	>48	Adsorption/EDTA/ Dilution	Only samples with high background are treated with adsorption beads	Manufacturer's Instructions	Supplied	No	5	175	5	175	Vacuum Manifold	HLA Fusion	50	PC >500 PC/NC >5	NC >500
229						Always	-60	>48			Manufacturer's Instructions	Supplied	No	5	275	5	275	Vacuum Manifold	Fusion	80	5000	NC >2000
230	Yes	Sensitised patient sera	Yes	Yes		Always	-60	>48			Manufacturer's Instructions	Supplied	No	5	275	5	275	Vacuum Manifold	Fusion	80	5000	NC >2000
232	Yes	Sensitised patient sera	Yes	Yes		Always	-60	>48			Manufacturer's Instructions	Supplied	No	5	275	5	275	Vacuum Manifold	Fusion	80	5000	NC >2000
242	No					Always	-20	>48	Adsorption Beads		Manufacturer's Instructions	Supplied	No	1	150	2	200	Centrifuge	HLA Fusion	100	13415	
252	Yes	Commercial	Yes	No	Each commercial kit has its own positive control	Yes	-20	>48		The sera are used undiluted	Manufacturer's Instructions	Supplied	No	1/3	100, 250			Vacuum Manifold	MatchIT		10000	
267	Yes	Provided with kit	Yes	No	Each commercial kit has positive serum included	Always	-30	>48	EDTA		Manufacturer's Instructions	Supplied	No					Vacuum Manifold	MatchIT			
268						Always	4	24-48	N/A		Manufacturer's Instructions	Supplied	No	5	175	5	175	Vacuum Manifold	HLA Fusion	50	>500	>1500
273	Yes		Yes	Yes		Always	4	24-48	N/A		Manufacturer's Instructions	Supplied	No	5	175	5	175	Vacuum Manifold	HLA Fusion	50	>500	>1500
277	Yes	UK NEQAS sample, tested last year	No	Once for lot control	Yes		-30	24-48	EDTA		Manufacturer's Instructions	Supplied	No	3	150, 200, 200	2	200	Centrifuge	xPonent 3/ Fusion 3	100	500; PC/NC >2	NC >1500
284																						
292																						
293	No					No																
294			Yes	Yes		Yes	-40	>48			Manufacturer's Instructions	Supplied	No	3	250	3	250	Vacuum Manifold	MatchIT	5000	5000	
302	Yes		Yes	Yes		Always	-20	>48	EDTA/Adsorption Beads/Heat Inactivation		Manufacturer's Instructions	Supplied	No	3	200	3	200	Centrifuge	Fusion	50	5000 MFI	NC >500 MFI
303	Yes	Sensitised patient sera	Yes	Yes		Always	-20	>48	EDTA/Adsorption Beads/Heat Inactivation		Manufacturer's Instructions	Supplied	No	3	200	3	200	Centrifuge	Fusion	50	5000 MFI	NC >500 MFI
309	Yes	Manufacturer	Yes	No		Always	4	>48			Manufacturer's Instructions	Supplied	No	3	250			Vacuum Manifold	MatchIT	60	10000	NC >500
351	Yes	Sensitised patient serum	Yes	Yes		Always	4	24-48	EDTA		Manufacturer's Instructions	Supplied	No	3	200	2	200	Centrifuge	HLA Fusion	50	6000	NC >1500
361	Yes	Manufacturer supplied	Yes	No	Each kit has own controls with different batches	Always	Fridge/Frozen	>48	N/A		Manufacturer's Instructions	Supplied	No	1	100	3	250	Vacuum Manifold	MatchIT	60	10000	When notified by software
392																						

- Denotes 2017 methodology/No methodology received