

UK NEQAS for H&I Scheme 4A2 - HLA Typing at 2nd Field Resolution

SAMPLES 4A2 06-10/2017

DISPATCHED ON 26TH SEPTEMBER 2017

METHODOLOGY SSP = PCR-SSP, SSOP = PCR-SSOP, SBT = Sequence Based Typing, LUM = Luminex, NGS = Next Generation Sequencing, TGS = Third Generation Sequencing

Lab No.	Date received	Date tested	Method used	HLA-A	HLA-B	HLA-C	HLA-DRB1	HLA-DRB3,4,5	HLA-DQA1	HLA-DQB1	HLA-DPA1	HLA-DPB1	IMGT/HLA allele database release	Source of Primers and Probes			Kit manufacturer	Detection method	Comments
														Commercial Kits	Own Design	Other			
9	27-Sep	02-Oct	SBT/LUM	SBT/LUM	SBT/LUM	SBT/LUM	SSP/LUM							Yes		One Lambda	Gel, Fluorescence		
11	27-Sep	05-Oct												Yes	Yes	One Lambda	Gel		
12	28-Sep	02-Oct	NGS	NGS	NGS	NGS		NGS					3.26.00	Yes		illumina	Fluorescence		
15	28-Sep	02-Oct	SBT	SBT	SBT	SBT								Yes	Yes		Fluorescence		
19	29-Sep	09-Oct	SBT/LUM/RT-PCR	SBT/LUM/RT-PCR	SBT/LUM/RT-PCR	SBT/LUM/RT-PCR							3.23	Yes	Yes	Immucor, Linkage Bioscience	Gel, Fluorescence		
20	27-Sep	05-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP	SSP/SSOP	SSP/SSOP	SSP/SSOP			3.22	Yes	Yes		Gel, Fluorescence		
23	27-Sep	13-Oct	NGS	NGS	NGS	NGS		SSP/SSOP	SSP/SSOP	SSP/SSOP	LUM/NGS						Gel, Fluorescence		
24	27-Sep	28-Sep	SBT	SBT	SBT	SBT								Yes		One Lambda, Immulina	Fluorescence		
26	27-Sep	28-Sep	LUM/SBT	LUM/SBT	LUM/SBT	LUM/SBT								Yes	Yes	Immucor	Gel, Fluorescence		
28	27-Sep	02-Oct												Yes		Immucor	Fluorescence		
29	27-Sep	29-Sep	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes		One Lambda	Gel, Fluorescence		
34	27-Sep	10-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes		Olerup, One Lambda	Gel, Fluorescence		
35	27-Sep	28-Sep	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes		Olerup, Linkage, GenDx, One Lambda	Fluorescence		
38	27-Sep	28-Sep	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP							3.24.0.1	Yes			Gel, Fluorescence		
39	27-Sep	29-Sep	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP							3.25; 3.26	Yes		Conexio, One Lambda, Illumina	Fluorescence		
41	27-Sep	12-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes		One Lambda, GenDx, One Lambda	Gel, Fluorescence		
42	27-Sep	09-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP							3.24	Yes		Omixon	Fluorescence		
45	26-Sep	05-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes	Yes	One Lambda, GenDx	Fluorescence		
48	29-Sep	16-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP							3.23	Yes		One Lambda, Life Technologies, Immucor	Gel, Fluorescence		
51	27-Sep	03-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP							3.25	Yes			Gel, Fluorescence		
62	27-Sep	27-Sep	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes	Yes	Lifetech, Pacific Biosciences	Gel, Fluorescence		
101	27-Sep	28-Sep	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes		Bionobis, One Lambda, Protrans	Fluorescence		
112	27-Sep	28-Sep	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes		One Lambda	Gel, Fluorescence		
113	27-Sep	05-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP							3.26	Yes		Olerup, One Lambda, GenDx	Gel, Fluorescence		
115	27-Sep	02-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes		Olerup, Invitrogen, One Lambda	Gel, Fluorescence		
123	27-Sep	12-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes		One Lambda, GenDx	Gel, Fluorescence		
126	03-Oct	11-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes		Olerup, Conexio	Fluorescence		
130	27-Sep	03-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes		GenDx, PacBio	Fluorescence		
132	27-Sep	13-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes		Olerup, Immulina	Fluorescence		
133	29-Sep	05-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes		Olerup, GenDx	Fluorescence		
141	02-Oct	12-Oct																	
142	29-Sep	29-Sep																	
145	28-Sep	10-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes		Olerup, One Lambda	Gel		
147	28-Sep	29-Sep																	
149	26-Sep	10-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes		Protrans, Unitrax, Olerup, Invitrogen, One Lambda, Immucor	Gel		
150	03-Oct	09-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes			Fluorescence		
156	27-Sep	03-Oct																	
157	27-Sep	02-Oct	NGS	NGS	NGS	NGS								3.25.0	Yes	GenDx	Fluorescence		
164	27-Sep	28-Sep	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes		Olerup, Holotype Omixon	Gel, Fluorescence		
165			SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes			Fluorescence		
178		17-Oct	SSP/SSOP	SSP/SSOP	SSP/SSOP	SSP/SSOP								Yes		Genovision, Olerup, Invitrogen, Gold, Lifecodes, One Lambda	Gel		
185	27-Sep	17-Oct	SBT/LUM	SBT/LUM	SBT/LUM	SBT/LUM							3.24.0.1	Yes			Fluorescence		
190	28-Sep	09-Oct																	
196	27-Sep	10-Oct																	
223	27-Sep	02-Oct																	
225	02-Oct	12-Oct																	
232	02-Oct	10-Oct												Yes		Olerup, Immucor	Gel		
242	29-Sep	10-Oct																	
245	27-Sep	09-Oct																	
248	02-Oct	16-Oct																	
259	28-Sep	25-Oct																	
260	28-Sep	09-Oct	SBT	SBT	SBT	SBT								3.7.0.2465	Yes	GenDx, Allele SEQR	Gel		
267	27-Sep	10-Oct																	
268	02-Oct	05-Oct																	
273	28-Sep	10-Oct	SBT/LUM	SSP/SSOP	SSP/SSOP	SBT/LUM		SSP	SSP/LUM	SBT/LUM		LUM	03:25	Yes		Olerup, Protrans, One Lambda	Gel		
276	27-Sep	09-Oct																	
304	28-Sep	12-Oct																	
312	28-Sep	02-Oct	SBT	SBT	SBT	SBT								3.26.0	Yes	Secore Express	Fluorescence		
321	27-Sep													3.26.0	Yes	Olerup, One Lambda	Gel, Fluorescence		
328	26-Sep	09-Oct	SBT	SBT	SBT	SBT		SSP	SSP/LUM	SBT		SSP/LUM	3.24.0	Yes		Fluorescence			
332	09-Oct	12-Oct	SBT	SBT	SBT	SBT				SBT			3.25.0	Yes		Fluorescence			
351																			
367	27-Sep	05-Oct																	
374	04-Oct	11-Oct																	
375	10-Oct	01-Nov	SBT	SBT	SBT	SBT							3.27		Yes	Immucor	NGS SBT		

UK NEQAS for H&I Scheme 4A2 - HLA Typing at 2nd Field Resolution

SAMPLE 4A2 06/2017

ASSESSMENT

DISPATCHED ON 26TH SEPTEMBER 2017

A*	A*	B*	B*	C*	C*	DRB1*	DRB1*	DRB5*	DOA1*	DOA1*	DOB1*	DOB1*	DPA1*	DPA1*	DPB1*	DPB1*	DPB1*
01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01	01:01	01:02	01:05	05:01	06:02	01:03	01:03/blank	04:01	04:01/blank	Acceptable
01:32/37/234/237	68:163	15:102/104/165	37:23/43/45/46/47/51/68	03:62/20N/171/227/341/357	06:55/83/176	10:19	15:141/145/146		01:11	01:01/04	05:18/27/51	06:20/47/84/237			126:01/350:01/415:01/459:01/464:01/534:01/615:01/618:01		Acceptable

Result Summary
Number Acceptable
Number Unacceptable
Number NT

57	57	57	57	56	56	60	60	22	22	22	55	55	9	9	41	41	Acceptable
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Unacceptable
1	1	1	1	1	1	3	3	1	2	2	3	3	0	0	1	1	Unacceptable

Lab	A*	B*	C*	DRB1*	DRB3/4/5*	DOA1*	DOB1*	DPA1*	DPB1*	A*	A*	B*	B*	C*	C*	DRB1*	DRB1*	DRB5*	DOA1*	DOA1*	DOB1*	DOB1*	DPA1*	DPA1*	DPB1*	DPB1*	Cis/trans allele combination	Comments
	58	58	57	63	23	24	58	9	42																			
9	Yes	Yes	Yes	Yes	Yes		Yes		Yes	01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01	01:01				05:01	06:02			04:01		
11	Yes	Yes	Yes	Yes		Yes	Yes		Yes	01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01		01:01	01:02	01:05	05:01	06:02	01:03		04:01		
12	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	01:01/32/37	68:02	15:01/102/104	37:01/23/43	03:03/62/171	06:02/55	10:01	15:01		01:01	01:02	01:05	05:01	06:02	01:03		04:01		
15	Yes	Yes	Yes	Yes			Yes		Yes	01:01/234	68:02/163	15:01	37:01/23/43/45-47	03:03/341	06:02	10:01/19	15:01/141				05:01/18/27	06:02/47/84			04:01			
19	Yes	Yes	Yes	Yes			Yes		Yes	01:01/234	68:02/163	15:01	37:01/23/43/45-47	03:03/341	06:02	10:01/19	15:01/141				05:01	06:02			04:01			
20	Yes	Yes	Yes	Yes		Yes	Yes		Yes	01:01/234	68:02/163	15:01	37:01	03:03/20N/227	06:02/83	10:01/19	15:01/141	1	01:02/11	01:05	05:01	06:02			04:01/126:01/350:01/415:01/459:01/464:01/534:01/615:01/618:01			
23	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01		01:01	01:02	01:05	05:01	06:02	01:03		04:01		
24	Yes	Yes	Yes	Yes			Yes		Yes	01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01				05:01	06:02			04:01			
25	Yes	Yes	Yes	Yes			Yes		Yes	01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01				05:01	06:02			04:01			
26	Yes	Yes	Yes	Yes			Yes		Yes	01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01				05:01	06:02			04:01			
28	Yes	Yes	Yes	Yes		Yes	Yes		Yes	01:01/234	68:02/163	15:01	37:01	03:03	06:02/83	10:01	15:01		01:02	01:05	05:01	06:02	01:03		04:01		Cannot exclude DQA1*01:11	
29	Yes	Yes	Yes	Yes		Yes	Yes		Yes	01:01/234	68:02/163	15:01	37:01	03:03	06:02/83	10:01	15:01				05:01	06:02			04:01			
34	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01		01:01	01:02	01:05	05:01	06:02	01:03		04:01		
35	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01:01:01	68:02:01:01	15:01:01:01	37:01:01	03:03:01:01	06:02:01:01	10:01:01	15:01:01		01:01:01	01:02	01:05	05:01:01	06:02:01		04:01			
38	Yes	Yes	Yes	Yes		Yes	Yes		Yes	01:01:01	68:02:01	15:01:01	37:01:01	03:03:01	06:02:01	10:01:01	15:01:01		01:01:01	01:02:01	01:05:01	05:01:01	06:02:01	01:03:01		04:01:01		Cannot resolve HLA-DPB1*02:01/416:01/04:02/105:01 ambiguities with the techniques used (Luminex SSO and Illumina NGS).
39	Yes	Yes	Yes	Yes		Yes	Yes		Yes	01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01		01:02/11	01:05	05:01	06:02			04:01/464			
41	Yes	Yes	Yes	Yes			Yes		Yes	01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01				05:01	06:02			04:01		04:01	
42	Yes	Yes	Yes	Yes			Yes		Yes	01:01	68:02/163	15:01	37:01	03:03	06:02	10:01	15:01				05:01	06:02			04:01			
45	Yes	Yes	Yes	Yes			Yes		Yes	01:01:01	68:02:01	15:01:01	37:01:01	03:03:01	06:02:01	10:01:01	15:01:01				05:01:01	06:02:01			04:01/126:01/350:01/415:01/459:01/464:01/534:01			
48	Yes	Yes	Yes	Yes			Yes		Yes	01:01/234	68:02	15:01/165	37:01/51	03:03/341	06:02/83	10:01	15:01				05:01/51	06:02/20			04:01			
51	Yes	Yes	Yes	Yes			Yes		Yes	01:01:01:01	68:02:01:01	15:01:01:01	37:01:01	03:03:01	06:02:01:01	10:01:01	15:01:01		01:01:01	01:02	01:05	05:01	06:02	01:03		04:01		
62	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	01:01:01:01	68:02:01:01	15:01:01:01	37:01:01	03:03:01	06:02:01:01	10:01:01	15:01:01		01:01:01	01:02	01:05	05:01	06:02	01:03		04:01		
101	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01/234/237	68:02/163	15:01	37:01/68	03:03	06:02	10:01/19	15:01/141/145/146	01:01	01:02	01:01/04/05	05:01	06:02/237	01:03		04:01			
112	Yes	Yes		Yes						01:01	68:02	15:01	37:01															HLA-DRB1* not informative for ambigudad
113	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	01:01:01	68:02:01	15:01:01	37:01:01	03:03:01	06:02:01	10:01:01	15:01:01		01:01:01	01:02	01:05	05:01:01	06:02:01	01:03		04:01		
115	Yes	Yes	Yes	Yes		Yes	Yes		Yes	01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01		01:01	01:02	01:05	05:01	06:02	01:03		04:01		
119	Yes	Yes	Yes	Yes		Yes	Yes		Yes	01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01		01:01	01:02	01:05	05:01	06:02	01:03		04:01		
123	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01		01:01	01:02	01:05	05:01	06:02			04:01		
126	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01		01:01	01:02	01:05	05:01	06:02	01:03		04:01		
130	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01:01:01	68:02:01:01	15:01:01:01	37:01:01	03:03:01:01	06:02:01:01	10:01:01:01	15:01:01		01:01:01	01:02:01:01	01:05:01	05:01:01:02	06:02:01:01/03	01:03:01:02		04:01:01		
132	Yes	Yes	Yes	Yes		Yes	Yes		Yes	01:01:01:01	68:02:01:01	15:01:01:01	37:01:01	03:03:01:01	06:02:01:01	10:01:01:01	15:01:01			01:02:01:01	01:05:01	05:01:01:02	06:02:01:01			04:01:01:01		04:01:01:06
133	Yes	Yes	Yes	Yes			Yes		Yes	01:01:01:01	68:02:01:01	15:01:01:01	37:01:01	03:03:01:01	06:02:01:01	10:01	15:01				05:01:01:02	06:02:01:01			04:01:01:01			
141	Yes	Yes	Yes	Yes		Yes	Yes		Yes	01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01			01:02	01:05	05:01	06:02			04:01		
142	Yes	Yes	Yes	Yes		Yes	Yes		Yes	01:01/234	68:02/163	15:01	37:01	03:03	06:02/83	10:01/19	15:01/141/145/146				05:01	06:02			04:01			
145	Yes	Yes	Yes	Yes		Yes	Yes		Yes	01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01			01:02	01:05	05:01	06:02			04:01		
147	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	01:01:01	68:02:01	15:01:01	37:01:01/37:68	03:03:01/03:03:36/03:227/341/357	06:02:01:06:83	10:01:01/10:19	15:01:01/15:01:17/15:01:32/15:141/145/146	01:01	01:02	01:05	05:01	06:02			04:01			
149	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	68:02	15:01	37:01	03:03	06:02	10:01	15:01		01:01	01:02	01:05	05:01	06:02			04:01		
150	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01:01:01	68:02:01:01	15:01:01:01	37:01:01	03:03:01:01	06:02:01:01	10:01:01:01/10:19	15:01:01:01/02/03/04	01:01:01			05:01:01:02/0	06:02:01:01			04:01:01:01/06			
156																												

UK NEQAS for H&I Scheme 4A2 - HLA Typing at 2nd Field Resolution

SAMPLE 4A2 07/2017

ASSESSMENT

DISPATCHED ON 26TH SEPTEMBER 2017

A*	A*	B*	B*	C*	C*	DRB1*	DRB1*	DRB3*	DRB4*	DOA1*	DOA1*	DOB1*	DOB1*	DPA1*	DPA1*	DPB1*	DPB1*	DPB1*	DPB1*	Acceptable
03:01	24:02	38:01	51:07	12:03	14:02	07:01	13:02	03:01	01:03	01:02	02:01	02:02	06:09	01:03	01:03/blank	04:01	04:01	04:01	04:01	Acceptable
03:20/26/267	03:76/79/351/352/353			12:23/109/110/111/143/167	14:23	07:34/72/79	13:208/236/239			01:11		02:01/04/97	06:05/88/189			126:01/350:01/415:01/459:01/464:01/534:01/615:01/618:01				Unacceptable
Result Summary Number Acceptable: 57 Number Unacceptable: 0 Number NT: 1																				

Lab	A*	B*	C*	DRB1*	DRB3/4/5*	DOA1*	DOA1*	DPA1*	DPA1*	A*	B*	B*	C*	C*	DRB1*	DRB1*	DRB3*	DRB4*	DOA1*	DOA1*	DOB1*	DOB1*	DPA1*	DPA1*	DPB1*	DPB1*	Cis/trans allele combination
58	58	57	63	23	24	58	9	42		A*	B*	B*	C*	C*	DRB1*	DRB1*	DRB3*	DRB4*	DOA1*	DOA1*	DOB1*	DOB1*	DPA1*	DPA1*	DPB1*	DPB1*	
9	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03	14:02	07:01	13:02	03:01	01:03			02:02	06:09			04:01	
11	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03	14:02	07:01	13:02	03:01	01:03	01:02	02:01	02:02	06:09	01:03		04:01	
12	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03	14:02	07:01	13:02	03:01	01:03	01:02	02:01	02:02	06:09	01:03		04:01	
15	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01/20/26	24:02/76/79	38:01	51:07	12:03/23/109	14:02/23	07:01/34	13:02					02:01/02/04	06:09/88			04:01	
19	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02/352/353	38:01	51:07	12:03/143	14:02	07:01/34/72	13:02					02:02	06:09/88/189			04:01	
20	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02/352/353	38:01	51:07	12:03/167	14:02	07:01/24/72	13:02/208	3	1	01:02/11	02:01	02:02	06:09		04:01	A*01:01:01:02N & B*15:01:01:02N excluded	
23	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03	14:02	07:01	13:02	03:01	01:03	01:02	02:01	02:02	06:09	01:03		04:01	
24	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02/353	38:01	51:07	12:03	14:02	07:01	13:02					02:02	06:09			04:01	
26	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03/143/167	14:02	07:01/34	13:02/208					02:02	06:09			04:01	
28	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03/143/167	14:02	07:01/34	13:02/208			01:02	02:01	02:02	06:09	01:03		04:01	Cannot exclude DOA1*01:11
29	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02/352/353	38:01	51:07	12:03/143/167	14:02	07:01	13:02					02:02	06:09			04:01	
34	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03	14:02	07:01	13:02	03:01	01:03	01:02	02:01	02:02	06:09	01:03		04:01	
35	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01/01:01	24:02:01:01	38:01:01	51:07:01	12:03:01	14:02:01	07:01:01	13:02:01	03:01:01	01:03:01			02:02:01:01	06:09:01:01			04:01	
38	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01:01	24:02:01	38:01:01	51:07:01	12:03:01	14:02:01	07:01:01	13:02:01	03:01:01	01:03:01	01:02:01	02:01:01	02:02:01	06:09:01	01:03:01		04:01:01	Cannot resolve HLA-DPB1*02:01/416:01/04:02/10 5:01 ambiguities with the techniques used (Luminex SSO and Illumina NGS).
39	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03	14:02	07:01	13:02			01:02/11	02:01	02:02	06:09			04:01/464	
41	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03	14:02	07:01	13:02			01:02	02:01	02:02	06:09			04:01	04:01
42	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02/353	38:01	51:07	12:03/143	14:02	07:01	13:02					02:02	06:09			04:01	
45	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01:01	24:02	38:01:01	51:07:01	12:03/143	14:02:01	07:01:01	13:02:01					02:02	06:09			04:01	
48	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01/267	24:02/351-353	38:01	51:07	12:03	14:02	07:01	13:02					02:02	06:09			04:01	
51	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01:01:01	24:02:01:01	38:01:01	51:07:01	12:03:01:01	14:02:01	07:01/79	13:02:01	03:01	01:03			02:02:01	06:09:01			04:01:01	
62	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02/352/353	38:01	51:07	12:03/143/167	14:02	07:01/34/72/79	13:02/208/236/239	03:01	01:03	01:02	02:01	02:02/97	06:09	01:03		04:01	
101	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03	14:02	07:01	13:02	03:01:01	01:03	01:02	02:01	02:02	06:09	01:03		04:01	
112	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01:01	24:02:01	38:01:01	51:07:01	12:03:01	14:02:01	07:01:01	13:02:01	03:01:01	01:03	01:02	02:01	02:02	06:09	01:03		04:01	
113	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01:01	24:02:01	38:01:01	51:07:01	12:03:01	14:02:01	07:01:01	13:02:01	03:01:01	01:03	01:02	02:01	02:02	06:09	01:03		04:01	
115	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03	14:02	07:01	13:02	03:01	01:03	01:02	02:01	02:02	06:09	01:03		04:01	
119	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03	14:02	07:01	13:02	03:01	01:03	01:02	02:01	02:02	06:09	01:03		04:01	
123	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03	14:02	07:01	13:02	03:01	01:03	01:02	02:01	02:02	06:09	01:03		04:01	
126	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03	14:02	07:01	13:02	03:01	01:03	01:02	02:01	02:02	06:09	01:03		04:01	
142	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01:01:01	24:02:01:01	38:01:01	51:07:01	12:03:01:01	14:02:01:01	07:01:01	13:02:01	03:01:01	01:03:01	01:02:01:04	02:01:01:01	02:02:01:01	06:09:01:01	01:03:01:02	01:03:01:04	04:01:01	
132	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01:01:01	24:02:01:01	38:01:01	51:07:01	12:03:01	14:02:01:04	07:01:01	13:02:01	03:01:01	01:03:01	01:02:01:04	02:01:01:01	02:02:01:01	06:09:01:01	01:03:01:02	01:03:01:04	04:01:01:01	
133	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01:01:01	24:02:01:01	38:01:01	51:07:01	12:03:01:01	14:02:01:01	07:01:01	13:02:01	03:01:01	01:03:01	01:02:01:04	02:01:01:01	02:02:01:01	06:09:01:01	01:03:01:02	01:03:01:04	04:01:01:01	
141	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03	14:02	07:01	13:02			01:02	02:01	02:02	06:09			04:01	
142	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02/353	38:01	51:07	14:02/11/30/59/84	14:02/11/30/59/84	07:01/34/72	13:02/208/236			01:02	02:01	02:02	06:09			04:01	
145	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03	14:02	07:01	13:02			01:02	02:01	02:02	06:09			04:01	
147	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01:01	24:02:01/24:02:98/24:353	38:01:01	51:07:01	12:03:01/12:143/167	14:02:01	07:01:01/07:01:18/07:01:21/07:34/72/79	13:02:01/13:208/236/239	03:01	01:03			02:02	06:09			04:01	
149	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03	14:02	07:01	13:02	03:01	01:03	01:02	02:01	02:02	06:09			04:01	
150	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01:01:01	24:02:01:01	38:01:01	51:07:01	12:03:01:01	14:02:01:01/04	07:01:01:01/2/03	13:02:01	03:01:01	01:03:01/01/03/06/09			02:02:01:01	06:09:01:01			04:01:01:01/06	
156	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01	24:02	38:01	51:07	12:03/23/109-111/125/160/167/171	14:02	07:01	13:02					02:02	06:09			04:01	
157	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	03:01:01:01	24:02:01:01	38:01:01	51:07:01	12:03:01:01	14:02:01:01												

UK NEQAS for H&I Scheme 4A2 - HLA Typing at 2nd Field Resolution

SAMPLE 4A2 08/2017

ASSESSMENT

DISPATCHED ON 26TH SEPTEMBER 2017

		A*	A*	B*	B*	C*	C*	DRB1*	DRB1*	DRB3*	DRB5*	DQA1*	DQA1*	DQB1*	DQB1*	DPA1*	DPA1*	DPB1*	DPB1*	Acceptable	
		03:01	30:02	07:02	18:01	05:01	07:02	03:01	15:01	02:02	01:01	01:02	05:01	02:01	06:02	01:03	01:03/blank	02:02	04:01	Acceptable	
		03:20/26	30:33	07:58/59/61/161N/271/294	18:17N/53/81/119/124/131	05:03/3/145/153N	07:50/66/349/566/592/594/595/596	03:124/132/137	15:141/145/146	02:46/54	01:26	01:11	02:02/04/47	06:47/84/173/237	03:01	01:03	01:03/blank	02:02	04:01	Acceptable	
		03:20/26	30:33	07:58/59/61/161N/271/294	18:17N/53/81/119/124/131	05:03/3/145/153N	07:50/66/349/566/592/594/595/596	03:124/132/137	15:141/145/146	02:46/54	01:26	01:11	02:02/04/47	06:47/84/173/237	03:01	01:03	01:03/blank	02:02	04:01	Acceptable	
Result Summary		57	57	57	57	56	56	61	61	22	22	22	22	55	55	9	9	41	41	Acceptable	
Number Acceptable		57	57	57	57	56	56	61	61	22	22	22	22	55	55	9	9	41	41	Acceptable	
Number Unacceptable		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Unacceptable	
Number NT		1	1	1	1	1	1	2	2	1	1	2	2	2	2	0	0	1	1	Unacceptable	
Lab	A*	B*	C*	DRB1*	DRB3*	DQA1*	DQA1*	DQB1*	DQB1*	DPA1*	DPA1*	DPB1*	DPB1*	Cis/trans allele combination		Comments					
9	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
12	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
15	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
19	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
20	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
22	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
24	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
26	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
28	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
34	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
35	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
38	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
39	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
41	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
42	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
45	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
48	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
51	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
52	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
101	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
112	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
115	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
119	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
122	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
130	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
132	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
133	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
141	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
142	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
146	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
147	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
148	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
150	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
156	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
157	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
164	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
165	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
176	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
185	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
190	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
196	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
225	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
232	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
242	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
245	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
248	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
259	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
260	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
267	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
268	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
275	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
276	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
304	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
312	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
321	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
328	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
332	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
351	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
367	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
374	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								
375	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes								

A*01:01:02N & B*15:01:01:02N excluded

Cannot exclude DQA1*01:11

Cannot resolve HLA-DPB1*02:01:04:16:01:04:02:105:01 ambiguities with the techniques used (Luminex SSO and Illumina NGS).

B*07:16N was removed by PCR-SSP technique. All remaining ambiguities belong to the P group

Low amount of reagents

UK NEQAS for H&I Scheme 4A2 - HLA Typing at 2nd Field Resolution

SAMPLE 4A2 10/2017

ASSESSMENT

DISPATCHED ON 26TH SEPTEMBER 2017

	A*	B*	C*	DRB1*	DRB3*	DRB5*	DOA1*	DOA1*	DOB1*	DOB1*	DOA1*	DOA1*	DPB1*	DPB1*	Acceptable
	01:01	02:01	07:02	08:01	07:01	07:02	03:01	15:01	01:01	01:01	01:02	05:01	02:01	06:02	Acceptable
01:32:27/234/237	02:09:66/67/63/64/65/66/68/69	07:58:59/61/161/162/171/294	08:10:19/173/182/183	07:06:18/19/52/163/34/419/458/588/591	07:27:50/66/349/566/592/594/595/596	03:12/132/133	15:01/141/145/146	01:33	01:26	01:11	02:02/024	06:47/84/173/237	141:01:352:01:414:01:416:01:461:01:617:01	105:01:463:01:571:01	Acceptable
	02:20														Unacceptable

Result Summary

Number Acceptable	56	55	56	58	55	60	60	22	22	22	55	9	9	41
Number Unacceptable	2	1	0	0	0	0	0	0	0	0	0	0	0	4
Number NT	2	2	2	2	2	3	3	1	1	2	3	0	0	1

Lab	A*	B*	C*	DRB1*	DRB3/4/5*	DOA1*	DOA1*	DOB1*	DOB1*	DOA1*	DOA1*	DPB1*	DPB1*	Cis/trans allele combination	Comments													
58	58	57	63	23	24	58	9	42	A*	B*	C*	DRB1*	DRB3*	DRB5*	DOA1*	DOA1*	DOB1*	DOB1*	DOA1*	DOA1*	DPB1*	DPB1*						
9	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01	07:02	08:01	07:01	07:02	03:01	15:01	01:01	01:01	02:01	06:02			02:01	04:02				
11	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	07:02	02:01	07:02	07:01	07:02	03:01	15:01	01:01	01:01	01:02	05:01	02:01	06:02	01:03	02:01	04:02			
12	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	07:02	02:01	07:02	07:01	07:02	03:01	15:01	01:01	01:01	01:02	05:01	02:01	06:02	01:03	02:01	04:02			
15	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01/32/37	02:01/09/66	07:02/56/59	08:01/109	07:01/06/18	07:02/50/66	03:01	15:01					02:01/02/04	06:02/47/84		02:01	04:02			
19	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NT	NT	NT	NT	NT	NT	NT	NT												
20	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01/234	02:01/629/642/665	07:02/61/161N	08:01/173	07:01	07:02	03:01/124/132/133	15:01/141	1	1	01:02/11	05:01	02:01	06:02		02:01/141/352:01:414:01:416:01:617:01	04:02/105:01:571:01			
22	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01	07:02	08:01	07:01	07:02	03:01	15:01	01:01	01:01	01:02	05:01	02:01	06:02	01:03	02:01	04:02			
24	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01/101L	07:02	08:01	07:01/01Q	07:02	03:01	15:01					02:01	06:02		01:03	02:01	04:02		
26	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01	07:02	08:01	07:01	07:02	03:01/124/132	15:01					02:01	06:02		01:03	02:01	04:02		
29	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01/234	02:01/629/642/665	07:02	08:01/173	07:01	07:02	03:01	15:01					02:01	06:02		01:03	02:01	04:02		
34	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01	07:02	08:01	07:01	07:02	03:01	15:01	01:01	01:01	01:02	05:01	02:01	06:02	01:03	02:01	04:02			
35	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01/01:01	02:01/01:01	07:02/01	08:01/01	07:01/01	07:02/01	03:01/01	15:01/01	01:01/02	01:01/01	01:02	05:01	02:01/01	06:02/01:01		02:01/02	04:02/01			
38	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01/01	02:01/01	07:02/01	08:01/01	07:01/01	07:02/01	03:01/01	15:01/01	01:01/02	01:01/01	01:02/01	05:01/01	02:01/01	06:02/01	01:03/01	02:01/02	04:02/01			
39	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01	07:02	08:01	07:01	07:02	03:01	15:01					02:01	06:02		01:03	02:01	04:02		
41	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01	07:02	08:01	07:01	07:02	03:01	15:01					02:01	06:02		01:03	02:01	04:02		
42	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01/01L/665	07:02	08:01	07:01/01Q/18/458	07:02/50/349/566	03:01	15:01					02:01	06:02		01:03	02:01	04:02		
45	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01/01	02:01/01	07:02/01	08:01	07:01/343/419/458	07:02/349	03:01	15:01					02:01/01	06:02/01		01:03	02:01	04:02		
48	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01	07:02	08:01	07:01	07:02	03:01	15:01					02:01	06:02		01:03	02:01	04:02		
51	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01/01:01	02:01/01	07:02/01	08:01/01	07:01/01	07:02/01/03	03:01/01	15:01/01	01:01/33	01:01/26	01:02	05:01	02:01/01	06:02/01		02:01/01	04:02/01			
62	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01/234/237	02:01/629/642/665/686/689	07:02/61/161N/271/294	08:01/173/182/183	07:01/16/18/19/34/34/419/458/591	07:02/27/50/349/566/592/594/595/596	03:01/124/132/133	15:01/141/145/146	01:01	01:01	01:02	05:01	02:01/01	06:02/237	01:03	02:01	04:02			
101	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01/09	07:02	08:01	07:01	07:02	03:01	15:01					02:01/01	06:02/01		01:03	02:01	04:02		
112	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01/01	02:01/01	07:02/01	08:01/01	07:01/01	07:02/01	03:01/01	15:01/01	01:01/02	01:01	01:02	05:01	02:01/01	06:02/01		02:01	04:02			
113	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01/01	02:01/01	07:02/01	08:01/01	07:01/01	07:02/01	03:01/01	15:01/01	01:01	01:01	01:02	05:01	02:01/01	06:02/01	01:03	02:01	04:02			
115	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01	07:02	08:01	07:01	07:02	03:01	15:01	01:01	01:01	01:02	05:01	02:01/01	06:02/01		02:01	04:02			
119	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01	07:02	08:01	07:01	07:02	03:01	15:01	01:01	01:01	01:02	05:01	02:01/01	06:02/01		02:01	04:02			
123	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01	07:02	08:01	07:01	07:02	03:01	15:01	01:01	01:01	01:02	05:01	02:01/01	06:02/01		02:01	04:02			
126	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01	07:02	08:01	07:01	07:02	03:01	15:01	01:01	01:01	01:02	05:01	02:01/01	06:02/01	01:03	02:01	04:02			
130	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01/01:01	02:01/01:01	07:02/01:01/03	08:01/01:01/02	07:01/01:01/06	07:02/01:01/03	03:01/01	15:01/01	01:01/02	01:01/01	01:02/01	05:01/01	02:01/01	06:02/01:01	01:03/01	01:03/01	02:01/02	04:02/01		
132	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01/01:01	02:01/01	07:02/01	08:01/01	07:01/01	07:02/01	03:01/01	15:01/01					02:01/01	06:02/01:01		02:01/02	04:02/01			
133	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01/01:01	02:01/01:01	07:02/01	08:01/01	07:01/01:01	07:02/01/03	03:01	15:01					02:01/01	06:02/01		02:01	04:02			
141	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01	07:02	08:01	07:01	07:02	03:01	15:01	01:02	05:01	01:02	05:01	02:01/01	06:02/01		02:01	04:02			
142	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01/665	07:02	08:01/173	07:01/19	07:02/27	03:01/124/132/133	15:01/141/145/146					02:01/01	06:02/01		02:01	04:02			
145	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01	07:02	08:01	07:01	07:02	03:01	15:01					02:01	06:02		01:03	02:01	04:02		
147	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01/01	02:01/01:02/01:130/02:642	07:02/01:07:02:45/07:61/27/1	08:01/01:08:01:20/08:18	07:01/01:07:01:02/07:343/419/458	07:02/01:07:02:80/07:50/349/566	03:01/01:03:01:0	15:01/01:15:01:17/15	01:01	01:01	01:02	05:01	02:01/01	06:02/01		02:01	04:02			
149	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01	07:02	08:01	07:01	07:02	03:01	15:01	01:01	01:01	01:02	05:01	02:01/01	06:02/01		02:01	04:02			
150	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01/01:01/06	02:01/01:01	07:02/01:01/03	08:01/01:01	07:01/01:01/16	07:02/01:03/09	03:01/01:01/02	15:01/01:01/02/03/04	01:01/02/01/02	01:01/01	01:02	05:01	02:01/01	06:02/01:01		02:01/02:05/17	04:02/01:02/05			
156	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	01:01	02:01/02:629	07:02	08:01</																