

UK NEQAS FOR H SCHEME 3 - HLA ANTIBODY IDENTIFICATION

CLASS I & II IgM HLA ANTIBODY SPECIFICITY ANALYSIS OF 306-310/2016

DESPATCHED ON 28TH JUNE 2016

Lab no.	301/2016 IgM antibodies detected		301/2016 IgM antibodies detected		301/2016 IgM antibodies detected		301/2016 IgM antibodies detected		301/2016 IgM antibodies detected	
	IgM antibodies detected	Method	IgM antibodies detected	Method	IgM antibodies detected	Method	IgM antibodies detected	Method	IgM antibodies detected	Method
38										
42	ND	C	ND	C	ND	C	ND	C	Cw7	IgM SA
54			A11	L	A2, 11 (*11:02) B57, 58 Cw12	L	A25, 26, 34, 66 B48	L	ND	C
162	Neg	L	Neg	L	A2, 11, 25, 26, 30, *34:01, 43, 66 B8, 37, 38, *44:02, 46, 57-59, 61, 63, 64, 73, 75, 77 Cw2, 4-10, 12, 15-18	L	Neg	L	Neg	L
206	Weak Positive	C	Neg	C	Neg	C	Neg	C	Neg	C
284	Neg	C	Neg	C	Neg	C	Neg	C	Neg	C
294									A36	C
									B7, 27	

Technique : C = CDC; E = ELISA; F = Flow cytometry; L = Luminex; O = Other

UK NEQAS FOR H SCHEME 3 - HLA ANTIBODY IDENTIFICATION

CDC % PRA OF 306-310/2016

DESPATCHED ON 28TH JUNE 2016

Lab no.	T-cell CDC panel size	B-cell CDC panel size	PBL CDC panel size	301/2016			CDC Specificities Detected	302/2016			CDC Specificities Detected	303/2016			CDC Specificities Detected	304/2016			CDC Specificities Detected	305/2016			CDC Specificities Detected
				T-cell	B-cell	PBL		T-cell	B-cell	PBL		T-cell	B-cell	PBL		T-cell	B-cell	PBL		T-cell	B-cell	PBL	
20		42			26				36		DQ2		2				19		DR17		69		
42			40			0				0				0				0			45		
147			37			0				0				0				0			27		
159			30			0				0				0				0			27		
194			42			0				0				0				0			20		
206			30			13	Cw5			0				0				0			17		
268	60			0					0			17					12			33			
284			30			0				0				0				0			0		
294	60			0					0			0					0			33			
																						A3, 36 B7, 27	

Technique : C = CDC; E = ELISA; F = Flow cytometry; L = Luminex; O = Other

UNACCEPTABLE ANTIGEN LIST OF 306-310/2016

DESPATCHED ON 28TH JUNE 2016

Lab no.	Unacceptable Antigens 306/2016	Unacceptable Antigens 307/2016	Unacceptable Antigens 308/2016
9	DR1, 4 DQ7, 8, 9	A3, 11, 30, 31, 36 B7, 8, 13, 24, 42, 55, 61, 67, 81 DR7, 53 DQ2, 4, 5, 8, 9	A2 B57, 58 DR9, 11 DQ7, 8, 9
11	Cw2, 4, 5, 6, 15, 17, 18 DR1, 4 DQ7, 8, 9	A30, 31 B8, 13 DR7, 53 DQ2, 4, 5, 7, 8, 9	A2 B57, 58 DR11 DQ7, 8, 9
14	All Specificities >3000MFI	All Specificities >3000MFI	All Specificities >3000MFI
15	All Specificities	All Specificities	All Specificities
20	Cw2, 4, 5, 6, 15, 17, 18 DR1, 4 DQ7, 8, 9	DQ2, 7, 8, 9	A2 B57, 58 DR11 DQ7
23	All Specificities	All Specificities	All Specificities
24	Cw2, 4, 5, 6, 8, 15, 17, 18 DR1, 4 DQ7, 8, 9	A30, 31 B8, 13 DR7, 53 DQ2, 4, 5, 7, 8, 9 DP1, 3, 5, 6, 9, 10, 11, 13, 14, 15, 17, 19, 20	A2 B57, 58 DR11 DQ7, 9 DP2, 3, *04:02, 6, 9, 10, 14, 17, 18, 20, 28
25	Cw2, 4, 5, 6, 8, 15, 17, 18 DR1, 4 DQ7, 8, 9	A30, 31 B8, 13 DR7, 53 DQ2, 4, 5, 7, 8, 9 DP1, 3, *04:01, 5, 6, 9, 10, 11, 13, 14, 15, 17, 18, 19, 20, 28	A2 B57, 58 DR11 DQ7, 8, 9 DP2, 3, *04:02, 6, 9, 10, 14, 17, 18, 20, 28
28	Cw2, 4, 5, 6, 8, 15, 17, 18 DR1, 4, 10 DQ3	A3, 30, 31 B7, 8, 13 Cw9, 10 DR7, 17, 53 DQ2, 3, 4, 5 DP1, 3, 5, 6, 9, 10, 11, 13, 14, 15, 17, 19, 20 DQA2, 3, 4, 5, 6 DPA2	A2, 203 B17 DR9, 11 DQ7, 9 DQA3, 6 DP1, 3, *04:02, 5, 6, 9, 10, 13, 14, 17, 18, 20, 28
34	Cw2, 4, 5, 6, 15, 17, 18 DR1, 4 DQ7, 8, 9	A3, 30, 31 B8 DQ2, 4, 5, 7, 8, 9 DP1, 3, 5, 6, 9, 10, 11, 13, 14, 15, 17, 19, 20 DPA1*02:01, 02:02, 04:01	A2 B57, 58, 75 DQA1*03:02, 05:03, 05:05, 06:01 DP2, 3, *04:02, 6, 9, 10, 14, 17, 18, 20, 28 DR11
38	Cw2, 4, 5, 6, 15, 17, 18 DR1, 4 DQ3	A30, 31 B8, 13 DR7, 53 DQ2, 3, 4, 5 DQA1*04, 05, 06 DPB1*01:01, 03:01, 05:01, 06:01, 09:01, 10:01, 11:01, 13:01, 14:01, 15:01, 17:01, 18:01, 19:01, 20:01, 28:01	A2 B17 DR9, 11 DQA1*03:02, 05, 06 DPB1*02:01, 03:01, 04:02, 06:01, 09:01, 10:01, 14:01, 17:01, 18:01, 20:01, 28:01
39	Cw2, 4, 5, 6, 8, 15, 17, 18 DR1, 4 DQ7, 8, 9	A30, 31 B8, 13 DQ2, 4, 7, 8, 9 DP1, 3, 5, 6, 10, 11, 13, 19, 20	A2 B57, 58 DR11 DQ7, 8, 9 DP2, 3, *04:02, 6, 9, 10, 14, 17, 18, 20, 28
41	Cw2, 4, 5, 6, 8, 15, 17, 18 DR1, 4 DQ7, 8, 9	A31 B13 DQ2, 4, 5, 7, 8, 9 DP1, 3, 5, 6, 9, 10, 11, 13, 14, 15, 17, 18, 19, 20, 28	A2 B57, 58 DR11 DQ7, 8, 9 DP2, 3, *04:02, 6, 9, 10, 14, 17, 18, 20, 28
42	DR4 DQ7, 8, 9	DQ2, 4, 5, 7, 8, 9	DP2, 3, *04:02, 6, 9, 10, 14, 17, 18, 20, 28 DR11
45	Cw2, 4, 5, 6, 15, 17, 18 DR4 DQ7, 8, 9	A3, 30, 31 B8, 13 DQ2, 4, *05:01, 7, 8, 9 DP1, 3, 5, 6, 9, 10, 11, 13, 14, 17, 19, 20 DPA1*02, 04	A2 B57, 58 DR11 DQ7, 8, 9 Dp2, 3, *04:02, 6, 9, 10, 14, 17, 18, 20, 28
54	All Specificities >2000MFI	All Specificities >2000MFI	All Specificities >2000MFI
58	Cw2, 4, 5, 6, 8, 15, 17, 18 DR1, 4 DQ3	A30, 31 B8, 13 DQ2, 3, 4, 5 DPB1, 3, 5, 6, 9, 10, 11, 13, 14, 15, 17, 19, 20 DPA1*02, 04	A2 B17 DR9, 11 DQ3 DPB2, 3, 4, 6, 9, 10, 14, 17, 18, 20, 28

62 Cw2, 4, 5, 6, 15, 17, 18
DR4
DQ7, 8, 9

100 All Specificities >2000MFI
112 Cw2, 4, 5, 6, 8, 15, 17, 18
DR4
DQ7, 8, 9

114 Cw2, 4, 5, 6, 8, 15, 17, 18
DR1, 4, 14
DQ7, 8, 9

117 DR4
DQ7, 8, 9

120 Cw2, 4, 5, 6, 8, 15, 17, 18
DR1, 4
DRB1*14:02
DQ7, 8, 9

133 C*02:02, 04:03, 05:01, 06:02, 08:02, 15:02, 18:01
DRB1*04:01/02/03/05

139 Cw2, 4, 5, 6, 15, 17, 18
DR1, 4
DQ7, 8, 9

142 Cw2, 5, 6, 15, 18
DR4

145 Cw2, 4, 5, 6, 15, 17, 18
DR4
DQ7, 8, 9

147 Cw2, 4, 5, 6, 8, 15, 17, 18
DR1, 4
DQ7, 8, 9

157 DR4
DQ7, 8, 9

159 Cw2, 4, 5, 6, 8, 15, 17, 18
DR1, 4
DQ7, 8, 9

160 DR1, 4
DQ7, 8, 9

162 DR1, 4, 14
DQ7, 8, 9

164 Cw2, 4, 6, 15, 17, 18
DR4
DQ7, 8, 9

181 Cw2, 4, 5, 6, 15, 17, 18
DR4
DQ7, 8, 9

185 Cw2, 4, 5, 6, 8, 15, 17, 18
DR4
DQ7, 8, 9

A30, 31
B8
DQ2, 4, 5, 7, 8, 9
DP1, 3, 6, 11, 19

All Specificities >2000MFI
DQ2, 4, 7, 8, 9
DP1, 3, 5, 13, 14, 17, 19, 28

A3, 30, 31
B13
DR7
DQ2, 4, 5, 7, 8, 9

DQ2, 7, 9

A30, 31
B13
DR7, 53
DQ2, 4, 5, 7, 8, 9
DP1, 3, 5, 6, 9, 10, 11, 13, 14, 15, 17, 18, 19, 20
DQB1*02:01/02

A30, 31
DQ2, 4, 7, 8, 9
DP1, 3, 5, 6, 9, 10, 11, 13, 14, 15, 17, 19, 20

DQ2

A31
DQ2, 4, 5, 7, 8, 9

A3, 30, 31
B8, 13
DQ2, 4, 7, 8, 9
DR1 and 10 are not allowed because of anti-HLA DQB1*05:01 antibody

A31
DQ2, 4, 5, 7, 8, 9

A30, 31
B8, 13
DQ2, 4, 7, 8, 9
DP1, 3, 5, 6, 9, 10, 11, 13, 14, 17, 19, 20

A3, 30, 31
B13
DR7, 17, 53
DQ2, 4, 5, 7, 8, 9
A3, 30, 31
B7, 8, 13, 81
DR7
DQ2, 4, 5, 7, 8, 9
A30, 31
B13
DQ2, 4, 5, 7, 8, 9
DP1, 3, 5, 6, 10, 11, 13, 14, 15, 17, 19, 20

A31
B8
DQ2, 4, 5, 7, 8, 9
DQA1*03:02
DP1, 3, 5, 6, 9, 10, 11, 13, 14, 15, 17, 18, 19, 20

DQ2, 4, 7, 8, 9
We are not able to define unacceptable for HLA-DP as deceased donors are not yet typed for HLA-DP. If relevant we perform urgent donor retrospective typing in order to define the DSA and allow the clinician to adapt IS strategy if relevant

A2
B57
DR11
DQ7, 8, 9
DP2, 3, 4, 6, 9, 10, 14, 17, 18, 20, 28
All Specificities >2000MFI
DR11
DP2, 3, 4, 17, 28

A2
B57, 58
DR9, 11
DQ7, 8, 9

A2

A2
B57, 58
DR11
DQ7, 8, 9
DP2, 3, *04:02, 6, 9, 10, 14, 17, 18, 20, 28
A*02:03

A2
DR11
DQA1*03:02, 05:03, 05:05, 06:01
DP2, 3, *04:02, 6, 9, 10, 14, 17, 18, 20, 23, 28

A2
B57
DR11
DQ7, 9
A2
B57, 58
DR11
DQ7
DP2, 3, *04:02, 6, 9, 10, 14, 17, 18, 20, 28
DR9 is not allowed because of anti-HLA DQA1*03:02 antibody

A2
B57
DR11
DQ7
A2
B57, 58
DR9, 11
DQ7, 8, 9
DP1, 2, **04:01, 3, 6, 9, 10, 14, 17, 18, 20, 28

A2
B57, 58
DR11
DQ7, 8, 9
A2
B57, 58
DR11
DQ7, 9
A2
B57, 58
DR11
DQ7
DP1, 2, 3, *04:02, 6, 9, 10, 14, 17, 18, 20, 28

A2
B57
DR11
DQ7
DQA1*03:02
DP2, 3, 4, 6, 9, 10, 14, 17, 18, 20, 28
DR11

195	Cw2, 4, 5, 6, 8, 15, 17, 18 DR1, 4 DQ7, 8, 9	A30, 31 B8, 13 DQ2, 4, 5, 7, 8, 9 DP1, 3, 5, 6, 9, 10, 11, 13, 14, 15, 17, 19, 20	A2 B57, 58 DR9, 11 DQ7, 8, 9 DP1, 2, 3, 4, 6, 9, 10, 14, 17, 18, 20, 28
204	Cw2, 4, 5, 6, 8, 15, 17, 18 DR1, 4 DQ7, 8, 9	A3, 30, 31 B7, 8, 13 DR4, 7, 9, 17, 53 DQ2, 4, 5, 7, 8, 9 DP1, 3, 5, 6, 9, 10, 11, 13, 14, 15, 17, 19, 20	A2 B57, 58 DR9, 11 DQ7, 8, 9 DP2, 3, *04:02, 6, 9, 10, 14, 17, 18, 20, 28
206	Cw2, 4, 5, 6, 15, 17, 18 DR4 DQ7, 8, 9	A31 B8 DR7, 8, 9 DQ2	A2 DR11 DQA1*03:02
209	DR4 DQ7, 8, 9	A31 DR4, 18 DQ2, 7, 8, 9	A2 B57 DR11
218	C*02:02, 04:01, 04:03, 05:01, 06:02, 08:02, 15:02, 17:01, 18:01 DRB1*01:01, 01:02, 04:01, 04:02, 04:03, 04:05 DQB1*03:01, 03:02, 03:03	DRB1*07:01 DRB4*01:01/DR53 DQA1*03:01, 03:02, 04:01, 05:01, 06:01 DQB1*02:01, 02:02, 03:01, 03:02, 03:03, 04:01, 04:02	A*02:01, 02:02, 02:03, 02:05, 24:03, 69:01 B*27:01, 58:01 DRB1*11:01, 14:04, 16:01 DRB5*01:01, DR51 DQB1*03:01, 03:02, 03:03
227	Cw2, 4, 5, 6, 15, 17, 18 DR1, 4 DQ7, 8, 9	A3, 30, 31 B8, 13 DR4, 7, 9, 52 DQ2, 4, 5, 7, 8, 9	A2 B57, 58 DR11 DQ7, 8, 9
262	C*02, 04, 05, 06, 08, 15, 17, 18 DR1, 4 DQ7, 8, 9	DR7 DQ2, 4, 7, 8, 9 DPB1 positive antigens	A2 B57 DR11 DQ7, 8, 9 DPB1 positive antigens
284	Cw2, 4, 5, 6, 15, 17, 18 DR1, 4, 14 DQ7, 8, 9	A30, 31 B8, 13 DR7 DQ2, 4, 5, 7, 8, 9 DPB1*01:01, 03:01, 05:01, 06:01, 09:01, 10:01, 11:01, 13:01, 14:01, 15:01, 17:01, 19:01, 20:01	A2 B57, 58 DR11 DQ7, 9 DPB1*02:01, 03:01, 04:02, 09:01, 10:01, 14:01, 17:01, 18:01, 20:01, 28:01
311	Cw2, 4, 5, 6, 15, 17, 18 DR1, 4 DQ7, 8, 9	A31 B8, 13 DR7 DQ2, 4, 5, 7, 8, 9 DP1, 3, 5, 6, 9, 10, 11, 13, 14, 15, 17, 19, 20 DPA1*02:01, 04:01	A2 B57 DR11 DQ7, 9 DQA1*03:02 DP1, 2, 3, 6, 9, 10, 14, 17, 18, 20, 28 DPB1*04:02
315	Cw2, 4, 5, 6, 15, 17, 18 DR4 DQ7, 8, 9	DQ2, 7, 8, 9	

Unacceptable Antigens 309/2016	Unacceptable Antigens 310/2016
<p>A3, 11, 23, 24, 25, 26, 29, 30, 31, 33, 34, 36, 66, 68, 69 Bw6 DR8, 11, 12, 13, 14, 17, 18, 52 DQ2 2708, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 67, 71, 72, 75, 76, 81, 82 DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52 DQ2 All Specificities >3000MFI All Specificities DR8, 11, 12, 13, 14, 17, 18 All Specificities A24, 68 B7, 18, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 64, 67, 71, 72, 75, 76, 78, 81 DR7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 52 DQ2 A24 B7, 18, 27, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 67, 71, 72, 75, 76, 78, 81, 82 DR7, 8, 9, 11, 12, 13, 14, 16, 17, 18 DR52 DQ2 A3, 24, 25, 26, 29, 30, 31, 33, 34, 68 B7, 8, 18, 27, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 64, 67, 71, 72, 75, 76, 78, 81, 82C Cw9 DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52 DQ2 2708, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 67, 71, 72, 75, 76, 78, 81 DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52 DQ2 2708, 35, 39, 40, 41, 42, 45, 48, 50, 62, 64, 67, 70, 75, 76, 78, 81, 82 Bw6 DR2, 3, 6, 7, 8, 9, 11, 12, 52 DQ2 A24, 68 B7, 8, 18, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 64, 67, 71, 72, 75, 76, 78, 81, 82 DR8, 9, 11, 12, 13, 14, 17, 18, 52 DQ2 A33, 34, 68 B7, 18, 27, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 64, 67, 71, 72, 75, 76, 78, 81 DR8, 11, 12, 13, 14, 16, 17, 18, 52 DQ2 DR8, 11, 13, 14, 17, 18, 52 A24 Bw6 DR8, 9, 11, 12, 13, 14, 17, 18, 52 DQ2 All Specificities >2000MFI A24 Bw6 DR3, 5, 6, 8, 9, 52 DQ2</p>	<p>A1, 3, 11, 23, 24, 25, 26, 29, 30, 31, 32, 33, 34, 36, 43, 66, 74, 80 DR7, 8, 9, 11, 12, 13, 14, 17, 18, 52 DQ2, 7 A1, 3, 11, 23, 24, 25, 26, 29, 30, 31, 32, 33, 34, 36, 66, 74, 80 B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 58, 60, 61, 67, 73, 81, 82 DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52 DQ2 All Specificities >3000MFI All Specificities A1, 3, 11, 23, 24, 25, 26, 29, 30, 31, 32, 33, 34, 36, 66, 74, 80 B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 58, 60, 61, 67, 73, 81, 82 DR7, 8, 11, 12, 13, 14, 17, 18 DQ2 All Specificities A1, 3, 11, 23, 24, 25, 29, 30, 31, 32, 33, 34, 36, 74, 80 B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 58, 60, 61, 67, 73, 81, 82 Cw2 DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52 DQ2 A1, 3, 11, 23, 24, 25, 29, 30, 31, 32, 33, 36, 74, 80 B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 60, 61, 67, 73, 81, 82 DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52 DQ2, 4, 7, 9 A1, 3, 9, 11, 19, 25, 26, 36, 43, 66, 80 B7, 8, 18, 27, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 64, 67, 71, 72, 75, 76, 78, 81, 82 Cw1, 2, 14 DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52 DQ2 DQA5 A1, 3, 11, 23, 24, 25, 26, 29, 30, 31, 32, 33, 34, 36, 43, 66, 80 B7, 13, 27, 42, 47, 48, 54, 55, 56, 60, 61, 67, 73, 81, 82 Cw2 DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52, 103 DQ2 DQA1*04:01, 05:03, 05:05, 06:01, 06:03, 06:09 A1, 3, 9, 10, 11, 29, 30, 31, 32, 33, 36, 43, 74, 80 B7, 13, 17, 22, 27, 40, 42, 47, 48, 67, 73, 81, 82 Cw2 DR2, 3, 6, 7, 8, 9, 11, 12, 52 DQ2 DQA1*04, 05, 06 A1, 3, 11, 23, 24, 25, 26, 29, 30, 31, 32, 33, 34, 36, 43, 66, 74, 80 B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 60, 61, 67, 73, 81, 82 Cw2 DR7, 8, 9, 11, 12, 13, 14, 17, 18, 82 DQ2 A1, 3, 11, 23, 24, 25, 29, 30, 31, 32, 33, 34, 36, 66, 74, 80 B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 60, 61, 67, 73, 81, 82 DR7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 52 DQ2 A3, 11, 30, 36, 80 B7, 13, 27, 42, 47, 48, 54, 56, 67, 73, 81, 82 DR7, 8, 9, 11, 12, 13, 14, 17, 18, 52 DQ2 A1, 3, 11, 23, 24, 25, 26, 29, 30, 31, 32, 33, 34, 36, 66, 74, 80 B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 58, 60, 61, 67, 73, 81, 82 Cw2 DR7, 8, 9, 11, 12, 13, 14, 17, 18, 52 DQ2, 7 DQA1*04, 05, 06 All Specificities >2000MFI A1, 3, 9, 10, 11, 19, 36, 80 B7, 13, 17, 22, 27, 40, 42, 47, 48, 67, 73, 81, 82 Cw2 DR2, 3, 5, 6, 7, 8, 9, 52 DQ2 DQA1*04, 05, 06</p>

B18, 35, 41, 45, 48, 50, 62, 71, 72, 75, 76

DR8, 9, 11, 12, 13, 14, 17, 18, 52

DQ2

All Specificities >2000MFI

DR8, 11, 12, 13, 14, 17, 18, 52

A24, 33, 34, 43, 67

B7, 18, 27, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 64, 67, 71, 72, 75, 76, 78, 81, 82

DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18

DQ2

DR11, 13, 14, 17, 18, 52

B7, 8, 18, 27, 35, 39, 41, 42, 45, 46, 48, 50, 54, 55, 56, 60, 61, 62, 64, 65, 67, 71, 72, 73, 75, 76, 78, 81, 82

DR7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 52

DQ2

DRB1*03:01:02/03, 11:01/04, 13:01/03, 14:01/54

DRB3*01:01, 02:02, 03:01

DR8, 9, 11, 12, 13, 14, 17, 18, 52

DQ2

DR17, 18, 52

B18, 35, 39, 41, 45, 48, 50, 54, 61, 62, 67, 71, 72, 75, 76

DR8, 11, 12, 13, 14, 17, 18, 52

DQ2

A24, 29, 30, 31, 33, 34, 66, 68

B7, 18, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 64, 67, 71, 72, 75, 76, 78, 81, 82

DR7, 8, 11, 12, 13, 14, 17, 18, 52

DQ2

DRB1*09:02 antigen is rare so HLA-DR9 is not forbidden

DR8, 11, 12, 13, 14, 17, 18, 52

DQ2

B7, 18, 27, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 67, 71, 72, 75, 76, 78, 81

DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52

DQ2

B7, 18, 35, 39, 41, 42, 45, 48, 50, 54, 60, 61, 62, 66, 71, 72, 75, 78

DR8, 11, 12, 13, 14, 16, 17, 18, 52

DQ2

A24, 31, 33, 34, 66, 68

B7, 8, 18, 27, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 64, 67, 71, 72, 75, 76, 78, 81, 82

DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18

DQ2, 6

B7, 18, 35, 39, 41, 45, 48, 50, 54, 55, 56, 60, 61, 64, 67, 71, 72, 76, 78, 81

DR8, 9, 11, 12, 13, 14, 17, 18, 52

DQ2

B45

DR8, 9, 11, 12, 13, 14, 17, 18, 52

DQ2

DR3, 8, 11, 12, 13, 14

A1, 3, 11, 23, 24, 25, 29, 30, 31, 32, 36, 66, 74, 80

B7, 13, 27, 42, 47, 48, 54, 55, 56, 60, 61, 67, 73, 81, 82

DR7, 8, 9, 11, 12, 13, 14, 17, 18

DQ2

All Specificities >2000MFI

2708, 60, 61, 42, 47, 48, 55, 67, 73, 81

DR7, 8, 9, 11, 12, 13, 14, 1404, 17, 18, 52

DQ2

A1, 3, 11, 23, 24, 25, 26, 29, 30, 31, 32, 33, 34, 36, 66, 74, 80

B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 58, 60, 61, 67, 73, 81, 82

Cw2

DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18

DQ2

A1, 3, 11, 24, 30, 31, 32, 36, 66, 74, 80

B7, 13, 27, 42, 47, 48, 54, 55, 56, 60, 61, 67, 73, 80, 81, 82

DR7, 8, 9, 11, 12, 13, 14, 17, 18, 52

DQ2, 7

A1, 3, 11, 23, 24, 25, 29, 30, 31, 32, 33, 34, 36, 66, 74, 80

B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 60, 61, 67, 73, 81, 82

A*01:01, 03:01, 11:01/02, 24:02/03, 32:01, 36:01, 66:02, 74:01, 80:01

B*07:02/03, 27:05/08, 40:01, 42:01, 55:01, 67:01, 73:01

DRB1*03:01:02/03, 07:01, 08:01, 09:01, 11:01/04, 12:01, 13:01/03, 14:01/04/54

DRB3*01:01, 02:02, 03:01

DQB1*02:01/02, 03:01/03, 04:02

A1, 3, 11, 23, 24, 30, 31, 32, 36, 66, 74, 80

B7, 13, 27, 42, 47, 48, 54, 55, 56, 60, 61, 67, 73, 81, 82

DR7, 8, 9, 11, 12, 13, 14, 17, 18, 52

DQ2

DQA1*04:01, 05:03, 05:05, 06:01

A3, 11

B7, 81

DR7, 8, 11, 12, 13, 14, 17, 18, 52

DQ2, 7

A1, 3, 11, 23, 24, 25, 29, 30, 31, 32, 36, 66, 74, 80

B7, 13, 27, 42, 47, 48, 54, 55, 56, 60, 61, 67, 73, 81, 82

DR7, 8, 9, 11, 12, 13, 14, 17, 18, 52

DQ2

A1, 3, 11, 23, 24, 25, 29, 30, 31, 32, 33, 34, 36, 66, 74, 80

B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 58, 60, 61, 67, 73, 81, 82

DR7, 8, 9, 11, 12, 13, 14, 17, 18, 52

DQ2

All HLA-DRB1 antigens associated with HLA-DQA1*04:01, 05:03, 06:01 chains are already unacceptable because of antibodies

A1, 3, 11, 23, 24, 25, 29, 30, 31, 32, 36, 66, 74, 80

B7, 13, 27, 47, 55, 56, 60, 61, 73

DR7, 8, 9, 11, 12, 13, 14, 17, 18, 52

DQ2

A1, 3, 11, 23, 24, 29, 30, 31, 32, 36, 66, 74, 80

B7, 13, 27, 42, 47, 48, 54, 55, 56, 60, 61, 67, 73, 81, 82

DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52

DQ2

DQA1*04:01, 05:03, 05:05, 06:01

A1, 3, 11, 23, 24, 25, 29, 30, 31, 32, 33, 34, 36, 66, 74, 80

B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 61, 67, 73, 81, 82

DR7, 8, 9, 11, 12, 13, 14, 17, 18, 52

DQ2, 4, 7

A1, 3, 11, 23, 24, 25, 26, 29, 30, 31, 32, 33, 34, 36, 66, 74, 80

B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 58, 60, 61, 67, 73, 81, 82

DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18

DQ2, 6

A1, 3, 11, 23, 24, 25, 29, 31, 32, 33, 34, 36, 66, 74, 80

B7, 13, 27, 42, 47, 48, 54, 55, 56, 60, 61, 67, 73, 81, 82

DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52

DQ2, 7

A1, 3, 11, 23, 24, 29, 30, 31, 32, 36, 66, 74, 80

B7, 13, 27, 42, 47, 48, 54, 55, 56, 60, 61, 67, 73, 81, 82

DR7, 8, 9, 11, 12, 13, 14, 15, 17, 18, 52

DQ2, 7

DQA1*04:01

A1, 3, 11, 24, *24:03, 32, 36, 74, 80

B7, 703, 13, 27, *27:08, 42, 47, 55, 60, 61, 67, 73, 81, 82

DR3, 7, 8, 9, 11, 12, 13, 14

DQ2, 7

A24	A1, 3, 11, 23, 24, 25, 29, 30, 31, 32, 33, 34, 36, 66, 74, 80
B7, 8, *27:08, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 64, 67, 71, 72, 75, 76, 78, 81	B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 60, 61, 67, 73, 81, 82
DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52	Cw2
DQ2	DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52
DQA1*05	DQ2, 4, 7
A24, 33, 68	DQA1*04, 05, 06
B7, 8, 18, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 64, 67, 71, 72, 75, 76, 78, 81, 82	A1, 3, 11, 23, 24, 25, 29, 30, 31, 32, 33, 36, 74, 80
DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52	B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 58, 60, 61, 67, 73, 81, 82
DQ2	Cw2
DR11, 12, 13, 14, 17, 18, 52	DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52
	DQ2
B7, 18, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 67, 71, 72, 75, 76, 78	A1, 3, 11, 20, 23, 24, 25, 29, 30, 31, 32, 36, 66, 74
DR8, 11, 12, 13, 14, 17, 18	B7, 13, 27, 42, 47, 48, 54, 55, 56, 60, 61, 67, 73, 81, 82
	DR7, 8, 9, 11, 12, 13, 14, 17, 18, 52
B15:01/B62, 15:02, B75, 15:03/B72, 15:12/B76	DQ2, 4
DRB1*03:01/DR17, 03:02, 03:03/DR18, 07:01, 08:01, 09:01, 11:01, 11:04, 12:01, 13:01, 13:03, 14:01, 14:04, 15:01, 15:02, 16:01, 16:02	A1, 3, 11, 23, 24, 29, 30, 31, 32, 36, 74, 80
DRB3*01:01/DR52, 02:02/DR52, 03:04/DR52	B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 60, 61, 73, 81, 82
DQB1*02:01, 02:02	DR7, 8, 9, 11, 12, 13, 14, 17, 18
	DQ2
A24, 29, 30, 31, 33, 34, 43, 66, 68	A*01:01, 03:01, 11:01, 11:02, 24:02, 24:03, 30:01, 31:01, 32:01, 36:01, 66:02, 74:01, 80:01
B7, 8, 18, *27:08, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 64, 67, 71, 72, 75, 76, 78, 81, 82	B*07:02, 07:03, 13:02, 27:03, 27:05, 27:08, 40:01/B60, 40:02/B61, 42:01, 47:01, 48:01, 55:01, 56:01, 57:01, 58:01, 73:01, 81:01, 82:02
Bw6	DRB1*03:01/DR17, 03:02, 03:03/DR18, 07:01, 08:01, 09:01, 11:01, 11:04, 12:01, 13:01, 13:03, 14:01, 14:04
Cw9, 10	DRB3*01:01/DR52, 02:02, DR52, 03:01/DR52
DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52	DQA1*04:01, 05:01, 06:01
DQ2	DQB1*02:01, 02:02
A31, 33, 34, 68	A1, 3, 11, 23, 24, 25, 26, 29, 30, 31, 32, 33, 34, 36, 43, 66, 74, 80
B7, 18, 35, 39, 41, 45, 50, 54, 55, 56, 60, 61, 62, 67, 71, 72, 75, 76, 78	B7, 13, 27, 41, 42, 47, 48, 49, 52, 54, 55, 56, 57, 58, 60, 61, 63, 67, 73, 81, 82
DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18	DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52
DQ2	DQ2, 4, 7
A24	DQA1*04:01, 05:01, 05:03, 05:05, 06:01
B7, 18, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 64, 67, 71, 72, 75, 78, 81, 82	A1, 3, 11, 23, 24, 29, 30, 31, 32, 33, 36, 74, 80
DR7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 52	B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 58, 60, 61, 67, 73, 81, 82
DQ2	DR7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 52
B7, 18, 35, 39, 41, 42, 45, 48, 50, 54, 55, 56, 60, 61, 62, 67, 71, 72, 75, 76, 78, 81	DQ2
DR8, 9, 11, 12, 13, 14, 16, 17, 18, 52	A1, 3, 11, 23, 24, 25, 29, 30, 31, 32, 33, 34, 36, 66, 74, 80
DQ2	B7, 13, 27, 42, 47, 48, 54, 55, 56, 57, 60, 61, 67, 73, 81, 82
	DR7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 52
B7, 18, 35, 39, 41, 42, 45, 48, 50, 54, 56, 60, 61, 62, 67, 71, 72, 75, 76, 78	DQ2
	DQA1*04, 05, 06
	A1, 3, 11, 24, 36, 80
	B7, 13, 27, 42, 47, 48, 54, 55, 56, 60, 61, 67, 73, 81, 82
	DR7, 8, 9, 11, 12, 13, 14, 17, 18