



Sample 4A2 09/2018

Allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele
A*01:01	A*02:469	A*02:481	A*02:538	A*02:559	A*02:607	A*02:608N	A*02:614	A*02:629	A*02:642	A*02:665	A*02:675N	A*02:685	A*02:686	A*02:687	A*02:689	A*02:690	A*02:691N	A*02:692	A*02:704	A*02:716	A*02:719	A*02:720	A*02:722	A*02:724	A*02:726	
A*32:01	A*32:53	A*32:54	A*32:61	A*32:68	A*32:74	A*32:103	A*32:106	A*32:110	A*32:111	A*32:114	A*32:116	A*32:117N	A*32:121													
B*44:03	B*44:278	B*44:280	B*44:281	B*44:298	B*44:302	B*44:309N	B*44:310N	B*44:324	B*44:325																	
C*07:02	C*07:50	C*07:66	C*07:74	C*07:159	C*07:160	C*07:167	C*07:245	C*07:348	C*07:349	C*07:350N	C*07:359	C*07:446	C*07:486	C*07:500	C*07:533	C*07:544	C*07:566	C*07:592	C*07:593N	C*07:594	C*07:595	C*07:596	C*07:608	C*07:612		
C*16:01	C*16:58	C*16:67	C*16:100	C*16:111	C*16:112	C*16:118	C*16:137	C*16:146																		

Allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele
DRB1*07:01	DRB1*07:34	DRB1*07:72	DRB1*07:79	DRB1*07:81	DRB1*07:85	DRB1*07:92	DRB1*07:93	DRB1*07:95	DRB1*07:96	DRB1*07:100															
DRB3*02:02	DRB3*02:28	DRB3*02:29N	DRB3*02:69	DRB3*02:71	DRB3*02:85	DRB3*02:86																			
DRB4*01:01	DRB4*01:03	DRB4*01:03N	DRB4*01:06	DRB4*01:09	DRB4*01:76	DRB4*01:79	DRB4*01:85																		
DOA1*02:01	DOA1*02:03	DOA1*05:03	DOA1*05:06	DOA1*05:07	DOA1*05:08	DOA1*05:09	DOA1*05:11	DOA1*05:13	DOA1*05:14																
DQB1*02:02	DQB1*02:01	DQB1*02:04	DQB1*02:06	DQB1*02:09	DQB1*02:10	DQB1*02:12	DQB1*02:14	DQB1*02:15	DQB1*02:16	DQB1*02:17	DQB1*02:18	DQB1*02:19	DQB1*02:20	DQB1*02:21	DQB1*02:22	DQB1*02:23	DQB1*02:24	DQB1*02:25	DQB1*02:26	DQB1*02:27	DQB1*02:28	DQB1*02:29	DQB1*02:30	DQB1*02:31	DQB1*02:32
DQB1*03:01	DQB1*03:09	DQB1*03:19	DQB1*03:21	DQB1*03:22	DQB1*03:24	DQB1*03:29	DQB1*03:35	DQB1*03:42	DQB1*03:49	DQB1*03:50	DQB1*03:51	DQB1*03:84N	DQB1*03:94	DQB1*03:115	DQB1*03:116	DQB1*03:164	DQB1*03:165	DQB1*03:169	DQB1*03:182	DQB1*03:191	DQB1*03:196	DQB1*03:198	DQB1*03:206	DQB1*03:241	DQB1*03:243
DQA1*05:05	DQA1*05:01	DQA1*05:01	DQA1*05:02	DQA1*05:03	DQA1*05:04	DQA1*05:05	DQA1*05:06	DQA1*05:07	DQA1*05:08	DQA1*05:09	DQA1*05:10	DQA1*05:11	DQA1*05:12	DQA1*05:13	DQA1*05:14										
DPB1*01:03	DPB1*01:14	DPB1*01:17																							
DPB1*03:01	DPB1*104:01	DPB1*124:01	DPB1*151:01	DPB1*169:01	DPB1*175:01	DPB1*176:01	DPB1*177:01	DPB1*178:01	DPB1*179:01	DPB1*180:01	DPB1*181:01	DPB1*182:01	DPB1*183:01	DPB1*184:01	DPB1*185:01	DPB1*186:01	DPB1*187:01	DPB1*188:01	DPB1*189:01	DPB1*190:01	DPB1*191:01	DPB1*192:01	DPB1*193:01	DPB1*194:01	DPB1*195:01
DPB1*11:01	DPB1*164:01	DPB1*165:01	DPB1*172:01	DPB1*173:01	DPB1*174:01	DPB1*175:01	DPB1*176:01	DPB1*177:01	DPB1*178:01	DPB1*179:01	DPB1*180:01	DPB1*181:01	DPB1*182:01	DPB1*183:01	DPB1*184:01	DPB1*185:01	DPB1*186:01	DPB1*187:01	DPB1*188:01	DPB1*189:01	DPB1*190:01	DPB1*191:01	DPB1*192:01	DPB1*193:01	DPB1*194:01

Sample 4A2 10/2018

Allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele
A*01:01	A*01:01N	A*01:04N	A*01:22N	A*01:32	A*01:37	A*01:45	A*01:56N	A*01:81	A*01:87N	A*01:103	A*01:107	A*01:109	A*01:132	A*01:141	A*01:142	A*01:155	A*01:177	A*01:212	A*01:217	A*01:234	A*01:237	A*01:246	A*01:248Q	A*01:249	A*01:251
A*03:01	A*03:01N	A*03:20	A*03:21N	A*03:26	A*03:37	A*03:45	A*03:78	A*03:112	A*03:118	A*03:129N	A*03:132	A*03:134	A*03:162N	A*03:182	A*03:220	A*03:279N	A*03:291	A*03:294	A*03:293	A*03:293	A*03:301	A*03:302	A*03:304	A*03:312	A*03:315
B*08:01	B*08:19N	B*08:109	B*08:173	B*08:178	B*08:182	B*08:183	B*08:191	B*08:194	B*08:207	B*08:221	B*08:222														
B*35:01	B*35:40N	B*35:42	B*35:57	B*35:94	B*35:134N	B*35:161	B*35:227	B*35:241	B*35:245	B*35:250	B*35:332	B*35:336	B*35:347	B*35:348	B*35:359	B*35:365	B*35:370	B*35:376	B*35:376	B*35:380	B*35:383	B*35:406			
C*04:01	C*04:05N	C*04:26	C*04:30	C*04:41	C*04:73	C*04:92	C*04:94	C*04:106	C*04:144	C*04:146	C*04:161	C*04:162	C*04:165	C*04:195	C*04:226	C*04:267	C*04:274	C*04:275	C*04:277	C*04:287	C*04:289	C*04:295	C*04:298	C*04:306	C*04:308
C*07:01	C*07:01Q	C*07:06	C*07:18	C*07:52	C*07:153	C*07:166	C*07:337	C*07:343	C*07:419	C*07:458	C*07:588	C*07:591	C*07:607	C*07:610	C*07:615	C*07:617	C*07:618	C*07:619	C*07:621	C*07:623	C*07:624	C*07:657	C*07:658	C*07:682	C*07:685
	C*07:687	C*07:694	C*07:696	C*07:706	C*07:708	C*07:721																			

Allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele
DRB1*01:03	DRB1*03:124	DRB1*03:132	DRB1*03:137	DRB1*03:144	DRB1*03:146	DRB1*03:147	DRB1*03:151	DRB1*03:152																	
DRB3*01:01	DRB3*01:16	DRB3*01:43																							
DOA1*01:01	DOA1*01:04	DOA1*01:05	DOA1*01:12	DOA1*01:18																					
DOA1*05:01	DOA1*05:03	DOA1*05:05	DOA1*05:06	DOA1*05:07	DOA1*05:08	DOA1*05:09	DOA1*05:11	DOA1*05:13	DOA1*05:14																
DQB1*02:01	DQB1*02:02	DQB1*02:04	DQB1*02:06	DQB1*02:09	DQB1*02:10	DQB1*02:12	DQB1*02:14	DQB1*02:15	DQB1*02:16	DQB1*02:17	DQB1*02:18	DQB1*02:19	DQB1*02:20	DQB1*02:21	DQB1*02:22	DQB1*02:23	DQB1*02:24	DQB1*02:25	DQB1*02:26	DQB1*02:27	DQB1*02:28	DQB1*02:29	DQB1*02:30	DQB1*02:31	DQB1*02:32
DQB1*05:01	DQB1*05:18	DQB1*05:27	DQB1*05:31	DQB1*05:32	DQB1*05:45	DQB1*05:84	DQB1*05:103	DQB1*05:104	DQB1*05:107	DQB1*05:133	DQB1*05:137	DQB1*05:139	DQB1*05:144	DQB1*05:148	DQB1*05:152	DQB1*05:159	DQB1*05:160	DQB1*05:163	DQB1*05:164	DQB1*05:173	DQB1*05:182	DQB1*05:183	DQB1*05:184		
DPB1*01:03	DPB1*01:14	DPB1*01:17																							
DPB1*02:02	DPB1*1547:01	DPB1*1721:01	DPB1*1766:01																						
DPB1*04:01	DPB1*126:01	DPB1*350:01	DPB1*1415:01	DPB1*1459:01	DPB1*1464:01	DPB1*534:01	DPB1*615:01	DPB1*618:01	DPB1*670:01	DPB1*699:01	DPB1*702:01	DPB1*754:01N	DPB1*755:01	DPB1*756:01N	DPB1*757:01	DPB1*765:01	DPB1*767:01	DPB1*784:01	DPB1*804:01	DPB1*813:01	DPB1*820:01	DPB1*824:01	DPB1*826:01	DPB1*849:01	DPB1*850:01
	DPB1*859:01	DPB1*878:01N	DPB1*880:01	DPB1*882:01	DPB1*926:01	DPB1*932:01																			

**SCHEME 4A2 - AMBIGUOUS TYPING COMBINATIONS**  
over exons 2 and 3 for HLA Class I and exon 2 for HLA Class II  
please refer to - <http://www.ebi.ac.uk/ipd/imgt/hla/ambig.html>  
Release 3.35.0  
SAMPLES 4A2 06-10/2018

Locus	Combination (consensus)	Combination 2	Combination 3	Combination 4	Combination 5	Combination 6	Combination 7	Combination 8	Combination 9	Combination 10	Combination 11	Combination 12	Combination 13	Combination 14	Combination 15	Combination 16	Combination 17
A*	11:01 24:02	A*11:04+A*24:48	A*11:12+A*24:260	A*11:19+A*24:07.01	A*11:27+A*24:10.01	A*11:39+A*24:03.01G	A*11:88+A*24:50	A*11:117+A*24:235	A*11:119.01+A*24:21.01	A*11:178+A*24:19	A*11:190+A*24:424	A*11:224+A*24:145					
B*	16:01 35:01	B*18:07.01+B*35:20.01	B*18:07.02+B*35:20.02	B*18:11+B*35:24.01	B*18:25+B*35:50	B*18:38+B*35:93	B*18:43+B*35:280	B*18:58+B*35:190	B*18:68+B*35:197	B*18:72.01+B*35:289	B*18:98+B*35:124	B*18:105+B*35:32.02	B*18:149+B*35:88.01				
C*	04:01 05:01	C*04:07.01+C*05:141	C*04:10.01G+C*05:46	C*04:15.02+C*05:84.02	C*04:33+C*05:25	C*04:103+C*05:78.01	C*04:120+C*05:09.01	C*04:129+C*05:29.01	C*04:223.01+C*05:18.05	C*04:223.02+C*05:18.01							
DRB1*	01:01 13:01	DRB1*01:18.01+DRB1*14:17	DRB1*01:18.01+DRB1*13:40	DRB1*01:20.01+DRB1*13:02.01G	DRB1*01:24.01+DRB1*13:20	DRB1*01:61+DRB1*14:30											
DQA1*	01:01 01:03																
DOB1*	05:01 06:03	DOB1*05:11.02+DOB1*06:28	DOB1*05:51+DOB1*06:31	DOB1*05:73+DOB1*06:199	DOB1*05:127+DOB1*06:30												
DPA1*	01:03																
DPB1*	02:01 04:01	DPB1*04:02.01G+DPB1*33.01.01G	DPB1*23.01.01G+DPB1*81.01.01G	DPB1*51.01.01G+DPB1*71.01.01	DPB1*642.01+DPB1*796.01												

Locus	Combination (consensus)	Combination 2	Combination 3	Combination 4	Combination 5	Combination 6	Combination 7	Combination 8	Combination 9	Combination 10	Combination 11	Combination 12	Combination 13	Combination 14	Combination 15	Combination 16	Combination 17
A*	02:01 32:01	A*02:20.01+A*32:31	A*02:24.02+A*32:28	A*02:40.01+A*32:06	A*02:45+A*32:93	A*02:81.01G+A*74:06	A*02:90+A*32:08	A*02:92+A*32:39									
B*	15:01 44:02	B*15:14+B*44:91	B*15:46+B*44:08	B*15:77+B*44:230	B*15:128+B*44:51	B*15:135+B*44:176	B*15:154+B*44:41.01	B*15:179.02+B*44:146	B*15:183+B*44:34.02	B*15:233+B*44:17	B*15:256+B*44:09	B*15:336+B*44:225	B*15:347+B*44:84.01				
C*	03:03 05:01	C*03:04.01G+C*05:55	C*03:13.01G+C*05:10	C*03:18.01+C*05:58.01	C*03:18.02+C*05:58.02	C*03:18.03+C*05:58.04	C*03:49+C*05:11	C*03:55+C*05:39	C*03:116.01+C*05:05.01	C*03:151+C*05:86	C*03:267+C*05:148	C*03:268+C*08:02.01G	C*03:414+C*05:18.01	C*03:450+C*05:20			
DRB1*	04:01 14:04	DRB1*04:01.14+DRB1*14.01.01G	DRB1*04:62+DRB1*14:23.04														
DQA1*	01:04 03:03																
DOB1*	03:01 05:03	DOB1*03:01.38+DOB1*05:43.01	DOB1*03:73+DOB1*05:86.02	DOB1*03:194+DOB1*05:64													
DPA1*	01:03 02:01	DPA1*01:06.01+DPA1*02:03															
DPB1*	04:01 10:01	DPB1*08.01+DPB1*56.01	DPB1*23.01.01G+DPB1*47.01	DPB1*33.01.01G+DPB1*312.01	DPB1*51.01.01G+DPB1*314.01	DPB1*81.01.01G+DPB1*912.01	DPB1*113.01+DPB1*150.01	DPB1*129.01+DPB1*904.01	DPB1*137.01.01G+DPB1*377.01	DPB1*344.01+DPB1*398.01.01G	DPB1*626.01+DPB1*891.01						

Locus	Combination (consensus)	Combination 2	Combination 3	Combination 4	Combination 5	Combination 6	Combination 7	Combination 8	Combination 9	Combination 10	Combination 11	Combination 12	Combination 13	Combination 14	Combination 15	Combination 16	Combination 17
A*	66:01 68:01																
B*	41:02 44:02	B*41:03.02+B*44:211	B*41:52+B*44:51														
C*	07:04 17:03																
DRB1*	01:01																
DQA1*	01:01																
DOB1*	05:01																
DPA1*	01:03 02:01	DPA1*01:06.01+DPA1*02:03															
DPB1*	01:01 04:01	DPB1*01:01.05+DPB1*276.01	DPB1*39.01.01G+DPB1*90.01.01	DPB1*65.01.01+DPB1*199.01	DPB1*89.01+DPB1*377.01	DPB1*150.01+DPB1*158.01	DPB1*398.01.01G+DPB1*440.01										

Locus	Combination (consensus)	Combination 2	Combination 3	Combination 4	Combination 5	Combination 6	Combination 7	Combination 8	Combination 9	Combination 10	Combination 11	Combination 12	Combination 13	Combination 14	Combination 15	Combination 16	Combination 17
A*	02:01 32:01	A*02:20.01+A*32:31	A*02:24.02+A*32:28	A*02:40.01+A*32:06	A*02:45+A*32:93	A*02:81.01G+A*74:06	A*02:90+A*32:08	A*02:92+A*32:39									
B*	39:06 44:03	B*39:34+B*44:29.01G	B*39:42+B*44:47														
C*	07:02 16:01	C*07:31.01+C*16:06	C*07:39+C*16:15.01	C*07:51+C*16:26	C*07:216+C*16:35	C*07:314.01+C*16:21											
DRB1*	07:01 11:03	DRB1*07:31+DRB1*11:02.01G															
DQA1*	02:01 05:05																
DOB1*	02:02 03:01																
DPA1*	01:03 02:01	DPA1*01:06.01+DPA1*02:03															
DPB1*	03:01 11:01	DPB1*203.01.02+DPB1*458.01															

Locus	Combination (consensus)	Combination 2	Combination 3	Combination 4	Combination 5	Combination 6	Combination 7	Combination 8	Combination 9	Combination 10	Combination 11	Combination 12	Combination 13	Combination 14	Combination 15	Combination 16	Combination 17
A*	01:01 03:01	A*01:06+A*03:153	A*01:17+A*03:08	A*01:23+A*03:164	A*01:28+A*03:57	A*01:98+A*03:150	A*01:100+A*03:63	A*01:176+A*03:107	A*01:194+A*03:41	A*01:196+A*03:127	A*01:221+A*03:56	A*03:97+A*36:04					
B*	08:01 35:01	B*08:12.03+B*35:30	B*08:13+B*35:115	B*08:21+B*35:93	B*08:23+B*35:29.01	B*08:32+B*35:49	B*08:35+B*35:34	B*08:37+B*35:04.01	B*08:50+B*35:218	B*08:56.02+B*35:124	B*08:60+B*35:88.01	B*08:71+B*35:64.02	B*08:133+B*35:254	B*08:180+B*35:25			
C*	04:01 07:01	C*04:04.01G+C*07:176	C*04:07.01+C*07:531	C*04:15.02+C*07:108.02	C*04:29+C*07:09	C*04:34.01+C*07:28	C*04:58+C*07:512	C*04:61+C*07:165	C*04:112+C*07:27.01	C*04:114+C*07:359	C*04:166.01+C*07:73.01						
DRB1*	01:01 03:01	DRB1*01:16+DRB1*13:27	DRB1*01:61+DRB1*03:05.01	DRB1*01:89+DRB1*03:15.01													
DQA1*	01:01 05:01																
DOB1*	02:01 05:01	DOB1*02:47+DOB1*05:44															
DPA1*	01:03																
DPB1*	02:02 04:01	DPB1*24.01+DPB1*830.01	DPB1*33.01.01G+DPB1*100.01	DPB1*112.01+DPB1*302.01													

**SCHEME 4A2 - AMBIGUOUS TYPING COMBINATIONS**  
over exons 2 and 3 for HLA Class I and exon 2 for HLA Class II  
please refer to - <http://www.ebi.ac.uk/ipd/imgh/hla/tmbig.html>  
Release: 3.35.0

SAMPLES 4A2 06-10/2018

Locus	Combination 1	Combination 2	Combination 3	Combination 4	Combination 5	Combination 6	Combination 7	Combination 8	Combination 9	Combination 10	Combination 11	Combination 12	Combination 13	Combination 14	Combination 15	Combination 16	Combination 17
A*	1191.01	A*11:01:07-A*24:02:02	A*11:04-A*34:46	A*11:02-A*24:28:0	A*11:19-A*24:07:01	A*11:27-A*24:10:01	A*11:39-A*24:03:01G	A*11:88-A*24:55	A*11:117-A*24:23:5	A*11:119:01-A*24:21:01	A*11:178-A*24:19	A*11:190-A*24:42:4	A*11:224-A*24:14:5				
B*	1801.01	B*18:01:06-B*35:01:04	B*18:07:01-B*35:20:01	B*18:07:02-B*35:20:02	B*18:11-B*35:24:01	B*18:25-B*35:50	B*18:43-B*35:28:0	B*18:56-B*35:19:0	B*18:68-B*35:19:7	B*18:72:01-B*35:29:9	B*18:98-B*35:12:4	B*18:105-B*35:32:02	B*18:149-B*35:68:01				
C*	04:01:01	C*04:01:72-C*05:01:23	C*04:07:01-C*05:14:1	C*04:10:01G-C*05:46	C*04:15:02-C*05:44:02	C*04:33-C*05:25	C*04:03-C*05:78:01	C*04:120-C*05:09:01	C*04:129-C*05:29:01	C*04:22:01-C*05:18:05	C*04:22:02-C*05:18:05						
DRB1*	01:01:01	DRB1*01:03:01+DRB1*14:17	DRB1*01:18:01+DRB1*13:40	DRB1*01:20:01+DRB1*13:02:01G	DRB1*01:24:01+DRB1*13:20	DRB1*01:61+DRB1*14:30											
DQA1*	01:01:01																
DQB1*	06:01:01	DQB1*06:01:14+DQB1*06:03:18	DQB1*06:11:02+DQB1*06:28	DQB1*06:51+DQB1*06:31	DQB1*06:73+DQB1*06:19:9	DQB1*06:127+DQB1*06:30											
DPA1*	01:03:01																
DPB1*	02:01:02	DPB1*04:02:01G+DPB1*33:01:01G	DPB1*23:01:01G+DPB1*81:01:01G	DPB1*51:01:01G+DPB1*71:01:01	DPB1*64:2:01+DPB1*79:01												

Locus	Combination 1	Combination 2	Combination 3	Combination 4	Combination 5	Combination 6	Combination 7	Combination 8	Combination 9	Combination 10	Combination 11	Combination 12	Combination 13	Combination 14	Combination 15	Combination 16	Combination 17
A*	02:01:01	A*02:20:01-A*32:31	A*02:24:02-A*32:28	A*02:40:01-A*32:06	A*02:45-A*32:53	A*02:81:01G-A*74:06	A*02:90-A*32:08	A*02:92-A*32:39									
B*	15:01:01	B*15:01:44-B*44:02:09	B*15:14-B*44:51	B*15:46-B*44:08	B*15:71-B*44:28:0	B*15:126-B*44:51	B*15:135-B*44:17:6	B*15:154-B*44:41:01	B*15:233-B*44:11:7	B*15:163-B*44:24:02	B*15:233-B*44:11:7	B*15:268-B*44:59	B*15:288-B*44:22:5	B*15:347-B*44:84:01			
C*	03:03:01	C*03:03:12-C*05:01:23	C*03:03:52-C*05:01:20	C*03:04:01G-C*05:55	C*03:13:01G-C*05:10	C*03:18:01-C*05:58:01	C*03:18:02-C*05:58:02	C*03:18:03-C*05:58:04	C*03:49-C*05:11	C*03:55-C*05:39	C*03:116:01-C*05:05:01	C*03:151-C*05:86	C*03:287-C*05:14:8	C*03:268-C*05:02:01G	C*03:414-C*05:18:01	C*03:450-C*05:20	C*03:450-C*05:20
DRB1*	04:01:01																
DQA1*	01:04:01																
DQB1*	03:03:01	DQB1*03:01:28+DQB1*03:43:01	DQB1*03:73+DQB1*05:66:02	DQB1*03:194+DQB1*05:64													
DPA1*	01:03:01	DPA1*01:03:03+DPA1*02:01:02G	DPA1*01:06:01+DPA1*02:03														
DPB1*	04:01:01	DPB1*02:01:02G+DPB1*125:01	DPB1*08:01+DPB1*66:01	DPB1*23:01:01G+DPB1*470:01	DPB1*33:01:01G+DPB1*312:01	DPB1*51:01:01G+DPB1*314:01	DPB1*81:01:01G+DPB1*912:01	DPB1*113:01+DPB1*150:01	DPB1*129:01+DPB1*904:01	DPB1*137:01G+DPB1*377:01	DPB1*344:01+DPB1*388:01:01G	DPB1*626:01+DPB1*891:01					

Locus	Combination 1	Combination 2	Combination 3	Combination 4	Combination 5	Combination 6	Combination 7	Combination 8	Combination 9	Combination 10	Combination 11	Combination 12	Combination 13	Combination 14	Combination 15	Combination 16	Combination 17
A*	06:01:01																
B*	41:02:01	B*41:03:02-B*44:21:1	B*41:52-B*44:51														
C*	07:04:01																
DRB1*	01:01:01																
DQA1*	01:01:01																
DQB1*	05:01:01																
DPA1*	01:03:01																
DPB1*	01:01:01	DPB1*01:01:05+DPB1*278:01	DPB1*39:01:01G+DPB1*90:01:01	DPB1*65:01:01+DPB1*199:01	DPB1*89:01+DPB1*377:01	DPB1*150:01+DPB1*158:01	DPB1*388:01:01G+DPB1*440:01										

Locus	Combination 1	Combination 2	Combination 3	Combination 4	Combination 5	Combination 6	Combination 7	Combination 8	Combination 9	Combination 10	Combination 11	Combination 12	Combination 13	Combination 14	Combination 15	Combination 16	Combination 17
A*	02:01:01	A*02:20:01-A*32:31	A*02:24:02-A*32:28	A*02:40:01-A*32:06	A*02:45-A*32:53	A*02:81:01G-A*74:06	A*02:90-A*32:08	A*02:92-A*32:39									
B*	39:06:02	B*39:06:01-B*44:03:02G	B*39:34-B*44:29:01G	B*39:42-B*44:47													
C*	07:02:01	C*07:02:04-C*16:01:30	C*07:02:09-C*16:01:52	C*07:31:01-C*16:06	C*07:39-C*16:15:01	C*07:51-C*16:26	C*07:216-C*16:35	C*07:314:01-C*16:21									
DRB1*	07:01:01	DRB1*07:31+DRB1*11:02:01G															
DQA1*	02:01:01																
DQB1*	02:02:01																
DPA1*	01:03:01	DPA1*01:03:03+DPA1*02:01:02G	DPA1*01:06:01+DPA1*02:03														
DPB1*	03:01:01	DPB1*203:01:02+DPB1*458:01															

Locus	Combination 1	Combination 2	Combination 3	Combination 4	Combination 5	Combination 6	Combination 7	Combination 8	Combination 9	Combination 10	Combination 11	Combination 12	Combination 13	Combination 14	Combination 15	Combination 16	Combination 17
A*	01:01:01	A*01:01:26-A*03:01:38	A*01:06-A*03:15:3	A*01:17-A*03:08	A*01:23-A*03:16:4	A*01:28-A*03:57	A*01:96-A*03:15:0	A*01:100-A*03:63	A*01:176-A*03:10:7	A*01:194-A*03:41	A*01:196-A*03:12:7	A*01:221-A*03:56	A*03:97-A*36:04				
B*	08:01:01	B*08:01:08-B*35:01:15	B*08:01:14-B*35:01:46	B*08:01:32-B*35:01:54	B*08:12:03-B*35:50	B*08:13-B*35:11:3	B*08:21-B*35:9:9	B*08:23-B*35:29:01	B*08:32-B*35:49	B*08:35-B*35:54	B*08:37-A*03:04:01	B*08:50-B*35:21:8	B*08:56:02-B*35:12:4	B*08:71-B*35:64:02	B*08:133-B*35:25:4	B*08:180-B*35:25	B*08:180-B*35:25
C*	04:01:01	C*04:01:08-C*07:01:49	C*04:01:23-C*07:01:74	C*04:01:39-C*07:01:12	C*04:01:43-C*07:01:05	C*04:01:72-C*07:01:23	C*04:04:01G-C*07:01:76	C*04:07:01-C*07:53	C*04:15:02-C*07:10:02	C*04:29-C*07:29	C*04:54:01-C*07:28	C*04:58-C*07:51:2	C*04:61-C*07:16:5	C*04:112-C*07:27:01	C*04:114-C*07:55:9	C*04:166:01-C*07:73:01	C*04:166:01-C*07:73:01
DRB1*	01:03:01	DRB1*01:16+DRB1*13:27	DRB1*01:81+DRB1*03:05:01	DRB1*01:89+DRB1*03:15:01													
DQA1*	01:01:01																
DQB1*	02:01:01	DQB1*02:01:03+DQB1*05:01:12	DQB1*02:47+DQB1*05:44														
DPA1*	01:03:01																
DPB1*	02:02:01	DPB1*24:01+DPB1*830:01	DPB1*33:01:01G+DPB1*100:01	DPB1*112:01+DPB1*302:01													