

SCHEME 4A2 - SEQUENCES IDENTICAL  
 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/imr/hla/ambig.html>  
 Release 3.19.0  
**SAMPLES 4A2 01-05/2015**

**Sample 4A2 01/15**

**Class I**

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*01:04N	A*01:24N	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*03:01	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								
B*07:02	B*07:44	B*07:49N	B*07:58	B*07:59	B*07:61	B*07:120	B*07:128	B*07:129	B*07:130	B*07:156	
	B*07:161N	B*07:169									
B*57:01	B*57:29	B*57:37	B*57:55								
C*06:02	C*06:46N	C*06:55	C*06:73	C*06:83	C*06:111	C*06:146					
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*07:308	C*07:348	C*07:349	
	C*07:350N	C*07:359									

**Class II**

Allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele
DRB1*04:01											
DRB1*13:05											
DRB3*02:02	DRB3*02:28	DRB3*02:29N									
DRB4*01:03	DRB4*01:01	DRB4*01:06									
DQA1*03:03	DQA1*03:01	DQA1*03:02									
DQA1*05:05	DQA1*05:01	DQA1*05:03	DQA1*05:06	DQA1*05:07	DQA1*05:08	DQA1*05:09	DQA1*05:11				
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*03:84	DQB1*03:115	DQB1*03:116	DQB1*03:164	DQB1*03:165				
DQB1*											
DPA1*01:03											
DPA1*											
DPB1*04:01	DPB1*126:01	DPB1*350:01	DPB1*415:01								
DPB1*											

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**Class I**

Allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele
A*03:01	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*29:02	A*29:26	A*29:46	A*29:75								
B*35:01	B*35:40N	B*35:42:01	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*38:01											
C*04:01	C*04:09N	C*04:28	C*04:30	C*04:41	C*04:79	C*04:82	C*04:84	C*04:106	C*04:144	C*04:146	
	C*04:161	C*04:162	C*04:165								
C*12:03	C*12:23	C*12:109	C*12:110	C*12:111	C*12:125	C*12:143					

**Class II**

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*16:01											
DRB5*02:02	DRB5*02:06										
DQA1*01:01	DQA1*01:04	DQA1*01:05	DQA1*01:12								
DQA1*01:02	DQA1*01:08	DQA1*01:09	DQA1*01:11								
DQB1*05:01	DQB1*05:18	DQB1*05:27	DQB1*05:31	DQB1*05:32	DQB1*05:45	DQB1*05:84					
DQB1*05:02	DQB1*05:14	DQB1*05:17	DQB1*05:35	DQB1*05:36	DQB1*05:37	DQB1*05:46	DQB1*05:47	DQB1*05:57	DQB1*05:87Q		
DPA1*01:03											
DPA1*											
DPB1*02:01	DPB1*141:01	DPB1*352:01	DPB1*414:01	DPB1*416:01							
DPB1*04:01	DPB1*126:01	DPB1*350:01	DPB1*415:01								

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**Class I**

Allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele
A*02:01	A*02:09	A*02:43N	A*02:66	A*02:75	A*02:83N	A*02:89	A*02:97:01	A*02:97:02	A*02:132	A*02:134	
	A*02:140	A*02:241	A*02:252	A*02:256	A*02:266	A*02:291	A*02:294	A*02:305N	A*02:327	A*02:329	
	A*02:356N	A*02:357	A*02:397	A*02:411	A*02:446	A*02:455	A*02:469	A*02:481	A*02:538		
A*											
B*49:01											
B*50:01	B*50:37										
C*06:02	C*06:46N	C*06:55	C*06:73	C*06:83	C*06:111	C*06:146					
C*07:01	C*07:06	C*07:18	C*07:52	C*07:153	C*07:166	C*07:337	C*07:343				

**Class II**

Allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele
DRB1*01:01	DRB1*01:50	DRB1*01:67									
DRB1*07:01	DRB1*07:34										
DRB4*01:03	DRB4*01:01	DRB4*01:06									
DQA1*01:01	DQA1*01:04	DQA1*01:05	DQA1*01:12								
DQA1*02:01											
DQB1*02:02	DQB1*02:01	DQB1*02:04	DQB1*02:06	DQB1*02:09	DQB1*02:10	DQB1*02:48					
DQB1*05:01	DQB1*05:18	DQB1*05:27	DQB1*05:31	DQB1*05:32	DQB1*05:45	DQB1*05:84					
DPA1*01:03											
DPA1*											
DPB1*04:01	DPB1*126:01	DPB1*350:01	DPB1*415:01								
DPB1*											

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**Class I**

Allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele
A*02:01	A*02:09	A*02:43N	A*02:66	A*02:75	A*02:83N	A*02:89	A*02:97:01	A*02:97:02	A*02:132	A*02:134	
	A*02:140	A*02:241	A*02:252	A*02:256	A*02:266	A*02:291	A*02:294	A*02:305N	A*02:327	A*02:329	
	A*02:356N	A*02:357	A*02:397	A*02:411	A*02:446	A*02:455	A*02:469	A*02:481	A*02:538		
A*											
B*44:03											
C*04:09N	C*04:01	C*04:28	C*04:30	C*04:41	C*04:79	C*04:82	C*04:84	C*04:106	C*04:144	C*04:146	
	C*04:161	C*04:162	C*04:165								
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*07:308	C*07:348	C*07:349	
	C*07:350N	C*07:359									

**Class II**

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*15:01											
DRB4*01:01	DRB4*01:03	DRB4*01:06									
DRB5*01:01											
DQA1*01:02	DQA1*01:08	DQA1*01:09	DQA1*01:11								
DQA1*02:02	DQA1*02:01	DQA1*02:04	DQA1*02:06	DQA1*02:09	DQA1*02:10	DQA1*02:48					
DQB1*05:02	DQB1*05:47	DQB1*05:84	DQB1*05:109	DQB1*05:111	DQB1*05:116	DQB1*05:117	DQB1*05:127				
DPA1*01:03											
DPA1*											
DPB1*04:01	DPB1*126:01	DPB1*350:01	DPB1*415:01								
DPB1*											

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**Class I**

Allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele
A*03:01	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*29:02	A*29:26	A*29:46	A*29:75								
B*07:02	B*07:44	B*07:49N	B*07:58	B*07:59	B*07:61	B*07:120	B*07:128	B*07:129	B*07:130	B*07:156	
	B*07:161N	B*07:169									
B*38:01											
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*07:308	C*07:348	C*07:349	
	C*07:350N	C*07:359									
C*12:03	C*12:23	C*12:109	C*12:110	C*12:111	C*12:125	C*12:143					

**Class II**

Allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele	Alternative allele
DRB1*04:01											
DRB1*16:01											
DRB4*01:03	DRB4*01:01	DRB4*01:06									
DRB5*02:02	DRB5*02:06										
DQA1*01:02	DQA1*01:08	DQA1*01:09	DQA1*01:11								
DQA1*03:03	DQA1*03:01	DQA1*03:02									
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			

