

DPB1 allele surrogates

IPD-IMGT/HLA version: 3.62

Background: DPB1 alleles have three variable regions that define the major functional antibody epitopes, as described in Morris et al. (PMID: 39277973). For DPB1 alleles that are not present on the single antigen bead (SAB) panel, it can be difficult to determine if antibodies will react. This table provides surrogates: alleles on the SAB panel that have the same, or the closest, three functional epitopes. The surrogate alleles are listed in order of the closest match to the 3 functional epitopes, as well as closest to 4 additional variable regions described by Laux et al. (PMID: 12792509).

Note: Amino acid sequences that do not correspond to the standard epitopes (55AAE, DED or DEE; 84DEAV, GGPM or VGPM; 96K/170I or R/T) are highlighted in yellow. Similarly, many of the 96/170 sequences are missing from the IMGT/HLA database, and will also be highlighted in yellow.

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
01:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
02:01	DEE	GGPM	R/T	02:01, 04:02
02:01Q	DEE	GGPM	R/T	02:01, 04:02
02:02	EAE	GGPM	R/T	23:01, 04:01
03:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
04:01	AAE	GGPM	R/T	04:01, 23:01
04:02	DEE	GGPM	R/T	04:02, 02:01
04:02Q	DEE	GGPM	R/T	04:02, 02:01
05:01	EAE	DEAV	K/I	05:01, 19:01
06:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 09:01, 14:01
08:01	DEE	DEAV	K/I	10:01
09:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
10:01	DEE	DEAV	K/I	10:01
11:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
13:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
14:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
15:01	AAE	VGPM	K/I	15:01
16:01	DEE	DEAV	K/I	10:01
17:01	DED	DEAV	R/T	17:01
18:01	DEE	VGPM	K/I	18:01
19:01	EAE	DEAV	K/I	19:01, 05:01
20:01	DED	DEAV	K/I	20:01, 03:01, 06:01, 14:01, 09:01
21:01	EAE	DEAV	K/I	05:01, 19:01
22:01	EAE	DEAV	K/I	05:01, 19:01
23:01	AAE	GGPM	R/T	23:01, 04:01
24:01	EAE	GGPM	R/T	04:01, 23:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
25:01	DEE	DEAV	K/I	10:01
26:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
27:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
28:01	DEE	VGPM	R/T	28:01
29:01	DED	DEAV	K/I	03:01, 06:01, 09:01, 14:01, 20:01
30:01	EAE	DEAV	R/T	19:01, 05:01
31:01	AAE	DEAV	R/T	01:01, 11:01, 13:01
32:01	DEV	GGPM	*/*	02:01, 04:02
33:01	AAE	GGPM	R/T	04:01, 23:01
34:01	AAE	VGPM	K/I	15:01
35:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 20:01, 06:01
36:01	EAE	DEAV	K/I	05:01, 19:01
37:01	DEE	DEAV	K/I	10:01
38:01	EAE	DEAV	K/I	05:01, 19:01
39:01	AAE	GGPM	R/T	04:01, 23:01
40:01	AAE	VGPM	R/T	04:01, 23:01
41:01	DEE	GGPM	R/T	02:01, 04:02
44:01	DED	DEAV	*/*	03:01, 06:01, 09:01, 14:01, 20:01, 17:01
45:01	DEE	DEAV	K/I	10:01
46:01	DED	GGPM	R/T	02:01, 04:02
47:01	EAE	GGPM	R/T	23:01, 04:01
48:01	DEE	GGPM	R/T	02:01, 04:02
49:01	DEE	GGPM	R/T	04:02, 02:01
50:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
51:01	DEE	GGPM	R/T	04:02, 02:01
52:01	AAE	DEAV	K/I	01:01, 11:01, 13:01
53:01	DEE	VGPM	R/T	28:01
54:01	EAE	DEAV	K/I	19:01, 05:01
55:01	AAE	DEAV	R/T	13:01, 01:01, 11:01
56:01	AAE	DEAV	*/*	01:01, 11:01, 13:01
57:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
58:01	AAE	DEAV	R/T	13:01, 01:01, 11:01
59:01	DEE	GGPM	R/T	04:02, 02:01
60:01	DEE	GGPM	R/T	04:02, 02:01
62:01	AAE	VGPM	K/I	15:01
63:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
65:01	AAE	DEAV	K/I	01:01, 13:01, 11:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
66:01	AAE	GGPM	R/T	04:01, 23:01
67:01	AAE	DEAV	K/I	01:01, 11:01, 13:01
68:01	DEE	DEAV	R/T	17:01
69:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 14:01, 09:01
70:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
71:01	AAE	GGPM	R/T	23:01, 04:01
72:01	AAE	GGPM	R/T	04:01, 23:01
73:01	DEE	GGPM	*/*	04:02, 02:01
74:01	AAE	VGPM	*/*	15:01
75:01	DEE	GGPM	R/T	04:02, 02:01
76:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
77:01	DEE	GGPM	R/T	04:02, 02:01
78:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
79:01	DEE	DEAV	K/I	10:01
80:01	DED	GGPM	R/T	04:02, 02:01
81:01	DEE	GGPM	R/T	02:01, 04:02
82:01	DEE	GGPM	R/T	04:02, 02:01
83:01	DEE	GGPM	R/T	04:02, 02:01
84:01	EEE	DEAV	*/*	05:01, 19:01, 10:01
85:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
86:01	DED	GGPM	R/T	02:01, 04:02
87:01	AAE	DEAV	K/I	11:01, 01:01, 13:01
88:01	DED	DEAV	K/I	09:01, 03:01, 06:01, 14:01, 20:01
89:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
90:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
91:01	DED	DEAV	K/I	14:01, 20:01, 03:01, 06:01, 09:01
92:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
93:01	DEE	DEAV	K/I	10:01
94:01	DEE	GGPM	*/*	04:02, 02:01
95:01	AAE	GGPM	*/*	23:01, 04:01
96:01	AAE	GGPM	K/I	15:01
97:01	EAE	DEAV	*/*	05:01, 19:01
98:01	DED	DEAV	*/*	17:01, 09:01, 14:01, 20:01, 03:01, 06:01
99:01	AAE	GGPM	R/T	04:01, 23:01
100:01	EAE	GGPM	R/T	23:01, 04:01
101:01	EAE	GGPM	*/*	23:01, 04:01
102:01	AAE	DEAV	R/T	01:01, 11:01, 13:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
103:01	AAE	DEAV	R/T	01:01, 13:01, 11:01
104:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
105:01	DEE	GGPM	R/T	04:02, 02:01
106:01	EAE	DEAV	R/T	19:01, 05:01
107:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
108:01	DED	GGPM	R/T	04:02, 02:01
109:01	DEE	GGPM	R/T	02:01, 04:02
110:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
111:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
112:01	AAE	GGPM	R/T	23:01, 04:01
113:01	DEE	GGPM	K/I	18:01
114:01	EAE	DEAV	*/*	05:01, 19:01
115:01	DEE	GGPM	R/T	02:01, 04:02
116:01	DEE	GGPM	R/T	04:02, 02:01
117:01	AAE	GGPM	*/*	04:01, 23:01
118:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
119:01	DED	NEAV	*/*	14:01, 03:01, 09:01, 20:01, 06:01, 17:01
121:01	AAE	GGPM	R/T	04:01, 23:01
122:01	DEE	DEAV	K/I	10:01
123:01	DEE	GGPM	R/T	02:01, 04:02
124:01	DED	DEAV	R/T	17:01
125:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
126:01	AAE	GGPM	R/T	04:01, 23:01
127:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
128:01	AAE	GGPM	R/T	04:01, 23:01
129:01	DEE	GGPM	R/T	04:02, 02:01
130:01	DED	DEAV	K/I	20:01, 03:01, 06:01, 14:01, 09:01
131:01	DED	DEAV	K/I	09:01, 06:01, 14:01, 20:01, 03:01
132:01	DED	DEAV	K/I	03:01, 09:01, 14:01, 20:01, 06:01
133:01	AAE	DEAV	R/T	13:01, 01:01, 11:01
134:01	AAE	GGPM	R/T	04:01, 23:01
135:01	EAE	DEAV	K/I	05:01, 19:01
136:01	DEE	DEAV	K/I	10:01
137:01	DEE	DEAV	R/T	17:01
138:01	AAE	GGPM	R/T	23:01, 04:01
139:01	EAE	VGPM	*/*	15:01
140:01	EAE	DEAV	*/*	05:01, 19:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
141:01	DEE	GGPM	R/T	02:01, 04:02
142:01	AAE	DEAV	K/I	01:01, 11:01, 13:01
143:01	DEE	GGPM	R/T	04:02, 02:01
144:01	DEE	GGPM	R/T	04:02, 02:01
145:01	DEE	GGPM	R/T	02:01, 04:02
146:01	DEE	GGPM	R/T	02:01, 04:02
147:01	AAE	DEAV	K/I	11:01, 01:01, 13:01
148:01	EEE	GGPM	*/*	02:01, 04:02
149:01	AAE	GGPM	R/T	04:01, 23:01
150:01	AAE	DEAV	R/T	01:01, 13:01, 11:01
151:01	DEE	GGPM	R/T	02:01, 04:02
152:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 09:01, 14:01
153:01	DEE	GGPM	R/T	04:02, 02:01
155:01	DEE	GGPM	R/T	02:01, 04:02
156:01	DED	DEAV	R/T	17:01
157:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
158:01	AAE	GGPM	K/I	15:01
160:01	AAE	DQAV	*/*	13:01, 01:01, 11:01
162:01	AAE	DEAV	R/T	01:01, 13:01, 11:01
163:01	DEE	GGPM	R/T	02:01, 04:02
164:01	DED	GGPM	*/*	04:02, 02:01
165:01	DEE	DEAV	K/I	10:01
166:01	DED	DEAV	K/I	06:01, 03:01, 09:01, 14:01, 20:01
167:01	DEE	DEAV	K/I	10:01
168:01	DED	DEAV	R/T	17:01
169:01	AAE	GGPM	*/*	04:01, 23:01
170:01	EAE	DEAV	K/I	05:01, 19:01
171:01	EAE	DEAV	*/*	05:01, 19:01
172:01	DEE	GGPM	R/T	02:01, 04:02
173:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
174:01	AAE	GGPM	*/*	04:01, 23:01
175:01	AAE	GGPM	R/T	04:01, 23:01
176:01	AAE	GGPM	*/*	04:01, 23:01
177:01	AAE	SGPM	R/T	04:01, 23:01
178:01	AAE	GGPV	R/T	04:01, 23:01
179:01	AAE	GGPM	R/T	04:01, 23:01
180:01	AAE	GGPM	*/*	04:01, 23:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
181:01	AAE	GGPM	*/*	04:01, 23:01
182:01	DED	DEAV	R/T	17:01
183:01	DEE	GGPM	*/*	04:02, 02:01
184:01	DEE	DEAV	R/T	17:01
185:01	DEE	GGPM	R/T	04:02, 02:01
186:01	DEE	GGPM	R/T	02:01, 04:02
187:01	DEE	GGPM	R/T	02:01, 04:02
188:01	DEE	GGPM	R/T	02:01, 04:02
189:01	DEE	GGPM	R/T	02:01, 04:02
190:01	AEE	GGPM	R/T	04:02, 23:01, 02:01, 04:01
191:01	DEE	GGPM	R/T	02:01, 04:02
192:01	AAE	GGPM	*/*	04:01, 23:01
193:01	AAE	GGPM	*/*	04:01, 23:01
194:01	AAE	GGPM	*/*	04:01, 23:01
195:01	AAE	GGPM	*/*	04:01, 23:01
196:01	DEE	GGPM	*/*	02:01, 04:02
197:01	DED	DEAV	K/I	14:01, 03:01, 20:01, 06:01, 09:01
198:01	DEE	VGPM	*/*	18:01, 28:01
199:01	AAE	GGPM	R/T	04:01, 23:01
200:01	DEE	GGPM	R/T	02:01, 04:02
201:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
202:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
203:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
204:01	DEE	DEAV	*/*	10:01
205:01	DED	DEAV	*/*	06:01, 20:01, 03:01, 14:01, 17:01, 09:01
206:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
207:01	AAE	DEAV	*/*	11:01, 13:01, 01:01
208:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 09:01, 14:01
209:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
210:01	DEE	GGPM	*/*	04:02, 02:01
211:01	DEE	GGPM	*/*	02:01, 04:02
212:01	AAE	GGPM	*/*	04:01, 23:01
213:01	AAE	GGPM	*/*	04:01, 23:01
214:01	DED	GGPM	R/T	04:02, 02:01
215:01	AAD	GGPM	R/T	04:01, 23:01
217:01	DEE	GGPM	*/*	02:01, 04:02
219:01	DEE	GGPM	*/*	04:02, 02:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
220:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
221:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
222:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
223:01	EAE	DEAV	*/*	05:01, 19:01
224:01	AAE	GGPM	R/T	04:01, 23:01
225:01	AAE	GGPM	R/T	04:01, 23:01
226:01	EAE	DEAV	*/*	05:01, 19:01
227:01	AAE	GGPM	*/*	04:01, 23:01
228:01	AAE	GGPM	R/T	04:01, 23:01
229:01	DEE	GGPM	R/T	02:01, 04:02
230:01	AAE	GWPM	*/*	04:01, 23:01
231:01	AAE	GGPM	*/*	04:01, 23:01
232:01	AAE	GGPM	*/*	04:01, 23:01
233:01	EAE	GGPM	R/T	23:01, 04:01
234:01	DED	DEAV	*/*	09:01, 17:01, 03:01, 06:01, 14:01, 20:01
235:01	DED	GGPM	R/T	02:01, 04:02
236:01	DEE	GGPM	R/T	02:01, 04:02
237:01	DEE	GGPM	R/T	02:01, 04:02
238:01	DEE	GGPM	R/T	02:01, 04:02
239:01	DEE	GGPM	*/*	02:01, 04:02
240:01	AAE	GGPM	R/T	04:01, 23:01
241:01	DED	DEAV	*/*	17:01, 09:01, 06:01, 14:01, 20:01, 03:01
242:01	DED	DGAV	*/*	14:01, 03:01, 09:01, 20:01, 06:01, 17:01
243:01	DED	DEAV	*/*	14:01, 03:01, 09:01, 20:01, 06:01, 17:01
244:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
245:01	DED	DEAV	R/T	17:01
246:01	AAE	DEAV	R/T	13:01, 01:01, 11:01
247:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
248:01	DED	DEAV	*/*	03:01, 09:01, 14:01, 20:01, 06:01, 17:01
249:01	DED	DEAV	K/I	09:01, 03:01, 06:01, 14:01, 20:01
250:01	AAE	DEAV	*/*	11:01, 13:01, 01:01
251:01	DED	DEAV	*/*	17:01, 09:01, 06:01, 14:01, 20:01, 03:01
252:01	DEE	GGPM	*/*	04:02, 02:01
253:01	AAE	GGPM	*/*	04:01, 23:01
254:01	AVE	GGPM	*/*	04:01, 23:01
255:01	AAE	GGPM	*/*	04:01, 23:01
256:01	DEE	GGPM	R/T	04:02, 02:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
257:01	DEE	GGPM	R/T	04:02, 02:01
258:01	DEE	GGPM	*/*	02:01, 04:02
259:01	DED	DEAV	K/I	20:01, 03:01, 06:01, 14:01, 09:01
260:01	DEE	GGPM	R/T	04:02, 02:01
261:01	DEE	GGPM	*/*	02:01, 04:02
262:01	AAE	GGPM	*/*	04:01, 23:01
263:01	DEE	GGPM	*/*	04:02, 02:01
264:01	AAE	DEAV	*/*	11:01, 13:01, 01:01
265:01	DEE	DEAV	K/I	10:01
266:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
267:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
268:01	AAE	DEAV	*/*	11:01, 13:01, 01:01
269:01	DEE	DEAV	*/*	10:01
270:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
271:01	DEE	GGPM	K/I	18:01
272:01	AAE	GGPM	*/*	04:01, 23:01
273:01	DEE	GGPM	*/*	02:01, 04:02
274:01	DEE	GGPM	*/*	04:02, 02:01
275:01	AAE	GGPM	*/*	04:01, 23:01
276:01	AAE	GGPM	*/*	04:01, 23:01
277:01	DEE	DEAV	K/I	10:01
278:01	AAE	GGPM	R/T	04:01, 23:01
279:01	AAE	GRPM	*/*	04:01, 23:01
280:01	AAE	GAPM	R/T	04:01, 23:01
281:01	AAE	GGPM	R/T	04:01, 23:01
282:01	AAE	GGPM	R/T	04:01, 23:01
283:01	AAE	GGPM	R/T	04:01, 23:01
284:01	EAE	DEAV	K/I	05:01, 19:01
285:01	DEE	DEAV	R/T	17:01
286:01	DEE	GGPM	R/T	04:02, 02:01
287:01	DED	DEAV	*/*	17:01, 09:01, 06:01, 14:01, 20:01, 03:01
288:01	DED	DEAV	*/*	09:01, 17:01, 14:01, 03:01, 06:01, 20:01
289:01	DED	DEAV	*/*	09:01, 17:01, 14:01, 03:01, 06:01, 20:01
290:01	AAE	VGPM	K/I	15:01
291:01	EAE	DEAV	K/I	05:01, 19:01
292:01	DED	VGPM	*/*	18:01, 28:01
293:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
294:01	AAE	GGPM	R/T	04:01, 23:01
295:01	AAE	DEAV	*/*	13:01, 01:01, 11:01
296:01	DEE	VGPM	K/I	18:01
297:01	DEE	GGPM	*/*	02:01, 04:02
298:01	AAE	GGPM	*/*	04:01, 23:01
299:01	AAE	VGPM	K/I	15:01
300:01	EAE	DEAV	*/*	05:01, 19:01
301:01	EAE	DEAV	K/I	05:01, 19:01
302:01	EAE	GGPM	*/*	04:01, 23:01
303:01	AAE	GGPM	*/*	04:01, 23:01
304:01	AAE	DEAV	*/*	13:01, 01:01, 11:01
305:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
306:01	AAE	GGPM	*/*	04:01, 23:01
307:01	DEE	GGPM	R/T	04:02, 02:01
308:01	DEE	GGPM	*/*	04:02, 02:01
309:01	DEE	GGPM	R/T	02:01, 04:02
310:01	DEE	GGPM	R/T	02:01, 04:02
311:01	DEE	GGPM	*/*	02:01, 04:02
312:01	DEE	DEAV	K/I	10:01
313:01	DEE	DEAV	K/I	10:01
314:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
315:01	VAE	DEAV	*/*	01:01, 13:01, 05:01, 11:01, 19:01
316:01	DEE	DEAV	*/*	10:01
317:01	EAE	DEAV	*/*	05:01, 19:01
318:01	AAE	GGPM	R/T	04:01, 23:01
319:01	AAE	GGPM	R/T	04:01, 23:01
320:01	AAE	GGPM	*/*	04:01, 23:01
321:01	DEE	GGPM	*/*	04:02, 02:01
322:01	AAE	GGPM	*/*	23:01, 04:01
323:01	AAE	GGPM	*/*	04:01, 23:01
324:01	DEE	DEAV	K/I	10:01
325:01	AAE	DEAV	R/T	13:01, 01:01, 11:01
326:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
327:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
329:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
330:01	EAE	DAAV	K/I	05:01, 19:01
331:01	EAE	DEAV	*/*	05:01, 19:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
332:01	DED	GGPM	*/*	02:01, 04:02
333:01	AAE	VGPM	K/I	15:01
334:01	AAE	GGPM	*/*	04:01, 23:01
335:01	AAE	GGPM	*/*	04:01, 23:01
336:01	AAE	GGPM	*/*	04:01, 23:01
337:01	EAE	DEAV	*/*	05:01, 19:01
338:01	DEE	GGPM	R/T	04:02, 02:01
339:01	DEE	GGPM	R/T	02:01, 04:02
340:01	AAE	DEAV	*/*	13:01, 01:01, 11:01
341:01	AAE	GGPM	R/T	04:01, 23:01
342:01	DEE	GGPM	*/*	04:02, 02:01
343:01	DED	DEAV	*/*	17:01, 09:01, 06:01, 14:01, 20:01, 03:01
344:01	DEE	GGPM	*/*	02:01, 04:02
345:01	AAE	VGPM	*/*	15:01
346:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
347:01	DEE	VGPM	*/*	18:01, 28:01
348:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
349:01	DEE	DEAV	*/*	10:01
350:01	AAE	GGPM	K/I	15:01
351:01	DED	DEAV	R/T	17:01
352:01	DEE	GGPM	K/I	18:01
353:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
354:01	AAE	GGPM	*/*	04:01, 23:01
355:01	DED	GGPM	R/T	04:02, 02:01
356:01	AAE	GGPM	*/*	04:01, 23:01
358:01	EAE	DEAV	R/T	19:01, 05:01
359:01	DEE	GGPM	*/*	02:01, 04:02
360:01	AAE	GGPM	R/T	04:01, 23:01
361:01	DED	DEAV	*/*	17:01, 09:01, 06:01, 14:01, 20:01, 03:01
362:01	AAE	DEAV	*/*	13:01, 01:01, 11:01
363:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
364:01	DEE	GGPM	*/*	04:02, 02:01
365:01	DEE	GGPM	*/*	04:02, 02:01
366:01	DEE	GGPM	R/T	02:01, 04:02
367:01	DEE	GGPM	R/T	02:01, 04:02
368:01	DEE	GGPM	*/*	04:02, 02:01
369:01	DEE	GGPM	R/T	04:02, 02:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
370:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
371:01	AAE	DEAV	*/*	11:01, 13:01, 01:01
372:01	AAE	GGPM	*/*	04:01, 23:01
373:01	DEE	GGPM	*/*	04:02, 02:01
374:01	DEE	GGPM	R/T	04:02, 02:01
375:01	AAE	GGPM	R/T	04:01, 23:01
376:01	AAE	GGPM	R/T	04:01, 23:01
377:01	AAE	GGPM	R/T	04:01, 23:01
378:01	AAE	GGPM	*/*	04:01, 23:01
379:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
380:01	DEE	GGPM	*/*	04:02, 02:01
381:01	DEE	GGPM	*/*	02:01, 04:02
383:01	DED	DEAV	*/*	14:01, 03:01, 09:01, 20:01, 06:01, 17:01
384:01	DED	DEAV	*/*	17:01, 09:01, 06:01, 14:01, 20:01, 03:01
385:01	DED	DEAV	*/*	14:01, 03:01, 09:01, 20:01, 06:01, 17:01
386:01	DED	DEAV	*/*	09:01, 17:01, 14:01, 03:01, 06:01, 20:01
387:01	AAE	VGPM	*/*	15:01
388:01	AAE	DEAV	*/*	11:01, 13:01, 01:01
389:01	AAE	DEAV	*/*	13:01, 11:01, 01:01
390:01	EAE	DEAV	*/*	05:01, 19:01
391:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
392:01	AAE	GGPM	*/*	23:01, 04:01
393:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
394:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
395:01	EAE	DEAV	*/*	05:01, 19:01
396:01	AAE	GGPM	R/T	04:01, 23:01
397:01	AAE	GGPM	R/T	04:01, 23:01
398:01	AAE	DEAV	R/T	01:01, 13:01, 11:01
399:01	AAE	GGPM	*/*	04:01, 23:01
400:01	EAE	DEAV	*/*	19:01, 05:01
402:01	DEE	GGPM	*/*	04:02, 02:01
404:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
405:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
406:01	EAE	GGPM	*/*	23:01, 04:01
407:01	DED	DEAV	*/*	17:01, 09:01, 06:01, 14:01, 20:01, 03:01
408:01	EAE	DEAV	*/*	19:01, 05:01
409:01	DED	DEAV	*/*	14:01, 03:01, 09:01, 20:01, 06:01, 17:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
410:01	DEE	DEAV	*/*	10:01
411:01	AAE	DEAV	*/*	01:01, 11:01, 13:01
412:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
413:01	DED	DEAV	K/I	06:01, 09:01, 20:01, 03:01, 14:01
414:01	DEE	GGPM	K/I	18:01
415:01	AAE	GGPM	R/T	04:01, 23:01
416:01	DEE	GGPM	R/T	02:01, 04:02
417:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
418:01	AAE	GGPM	*/*	04:01, 23:01
419:01	DEE	GGPM	*/*	02:01, 04:02
420:01	DEE	GGPM	*/*	04:02, 02:01
421:01	DEE	GGPM	*/*	02:01, 04:02
422:01	DEE	DEAV	K/I	10:01
423:01	DEE	GGPM	*/*	02:01, 04:02
424:01	DEE	GGPM	*/*	04:02, 02:01
425:01	AAE	GGPM	*/*	04:01, 23:01
426:01	AAE	GGPM	*/*	04:01, 23:01
427:01	ATE	GGPM	*/*	04:01, 23:01
428:01	AAE	GGPM	R/T	04:01, 23:01
429:01	DEE	GGPM	*/*	04:02, 02:01
430:01	DEE	GGPM	*/*	04:02, 02:01
431:01	DEE	GRPM	*/*	04:02, 02:01
432:01	DEE	GGPM	*/*	02:01, 04:02
433:01	DEE	GGPM	*/*	02:01, 04:02
434:01	AAE	GGPM	*/*	04:01, 23:01
435:01	AAE	GGPM	*/*	23:01, 04:01
436:01	AAE	DEVV	*/*	01:01, 13:01, 11:01
437:01	AAE	DEAV	*/*	11:01, 13:01, 01:01
438:01	AAE	DEAV	*/*	13:01, 01:01, 11:01
439:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
440:01	AAE	GGPM	K/I	15:01
441:01	DEE	GGPM	*/*	02:01, 04:02
442:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
443:01	DEE	GGPM	*/*	04:02, 02:01
444:01	DEE	GGPM	*/*	02:01, 04:02
445:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
446:01	DED	DEAV	*/*	14:01, 03:01, 09:01, 20:01, 06:01, 17:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
447:01	DED	DEAV	*/*	17:01, 09:01, 06:01, 14:01, 20:01, 03:01
448:01	DEE	DEAV	*/*	10:01
449:01	AAE	DEAV	*/*	13:01, 01:01, 11:01
451:01	AAE	GGPM	*/*	23:01, 04:01
452:01	DEE	GGPM	*/*	02:01, 04:02
453:01	AAE	GGPM	*/*	04:01, 23:01
454:01	AAE	GEPM	*/*	04:01, 23:01
456:01	AAE	GGPM	*/*	04:01, 23:01
457:01	DEE	GGPM	*/*	02:01, 04:02
458:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
459:01	AAE	GGPM	R/T	04:01, 23:01
460:01	DED	DEAV	R/T	17:01
461:01	DEE	GGPM	K/I	18:01
462:01	AAE	DEAV	R/T	01:01, 13:01, 11:01
463:01	DEE	GGPM	K/I	18:01
464:01	AAE	GGPM	R/T	04:01, 23:01
465:01	AAE	GGPM	*/*	04:01, 23:01
466:01	DEE	DEAV	*/*	10:01
467:01	DEE	GRPM	*/*	02:01, 04:02
468:01	AAE	GGPM	*/*	04:01, 23:01
469:01	DEE	GGPM	*/*	02:01, 04:02
470:01	DEE	DEAV	*/*	10:01
471:01	AAE	VGPM	*/*	15:01
472:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
473:01	EAE	DEAV	*/*	05:01, 19:01
474:01	AAE	GGPM	*/*	04:01, 23:01
475:01	AAE	GGPM	*/*	04:01, 23:01
476:01	AAE	GGPM	*/*	04:01, 23:01
477:01	DEE	GGPM	*/*	04:02, 02:01
478:01	EAE	GGPM	*/*	23:01, 04:01
479:01	AAE	GGPM	*/*	04:01, 23:01
480:01	AAE	GGPM	*/*	04:01, 23:01
481:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
482:01	AAE	VGPM	*/*	15:01
483:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
484:01	DED	VGPM	*/*	28:01, 18:01
485:01	AAE	GGPM	R/T	04:01, 23:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
486:01	AAE	GGPM	*/*	04:01, 23:01
487:01	AAE	GGPM	*/*	04:01, 23:01
488:01	DEE	GGPM	R/T	04:02, 02:01
489:01	DEE	GGPV	*/*	02:01, 04:02
490:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
491:01	DED	DEAV	*/*	14:01, 03:01, 09:01, 20:01, 06:01, 17:01
492:01	DED	DEAV	*/*	14:01, 03:01, 09:01, 20:01, 06:01, 17:01
493:01	AAE	VGPM	K/I	15:01
494:01	DEE	GGPM	*/*	04:02, 02:01
495:01	EAE	DEAV	*/*	05:01, 19:01
496:01	EAE	GGPM	*/*	23:01, 04:01
497:01	AAE	GGPM	*/*	04:01, 23:01
498:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
499:01	DEE	VGPM	K/I	18:01
500:01	AAE	GGPM	R/T	04:01, 23:01
501:01	DEE	GGPM	*/*	02:01, 04:02
502:01	DEE	GGPM	*/*	02:01, 04:02
503:01	AAE	DEAV	*/*	13:01, 01:01, 11:01
504:01	DED	DEAV	*/*	09:01, 17:01, 14:01, 03:01, 06:01, 20:01
505:01	DED	DEAV	*/*	09:01, 17:01, 14:01, 03:01, 06:01, 20:01
506:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
508:01	DED	GGPM	*/*	04:02, 02:01
509:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
510:01	DEE	GGPM	*/*	02:01, 04:02
511:01	DEE	GGPM	*/*	02:01, 04:02
512:01	AAE	VGPM	*/*	15:01
513:01	DEE	DGPM	*/*	02:01, 04:02, 18:01, 28:01
514:01	DEE	DEAV	K/I	10:01
515:01	DEE	DEAV	*/*	10:01
516:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
517:01	AAE	DEAV	*/*	11:01, 13:01, 01:01
518:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
519:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
520:01	AAE	GGPM	*/*	04:01, 23:01
521:01	AAE	GGPM	R/T	04:01, 23:01
522:01	AAE	GGPM	*/*	04:01, 23:01
523:01	AAE	GGPM	*/*	04:01, 23:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
524:01	AAE	GGPM	*/*	04:01, 23:01
525:01	DEE	GGPM	*/*	04:02, 02:01
526:01	DEE	VGPM	*/*	18:01, 28:01
527:01	EAE	DEAV	*/*	05:01, 19:01
528:01	DEE	GGPM	*/*	02:01, 04:02
529:01	AAE	GGPM	*/*	04:01, 23:01
530:01	DED	DEAV	*/*	09:01, 17:01, 06:01, 14:01, 03:01, 20:01
531:01	AAE	GGPM	*/*	04:01, 23:01
532:01	DEE	DEAV	*/*	10:01
533:01	EAE	DEAV	K/I	19:01, 05:01
534:01	AAE	GGPM	R/T	04:01, 23:01
535:01	EAE	DEAV	R/T	19:01, 05:01
536:01	DED	DEAV	K/I	03:01, 09:01, 14:01, 20:01, 06:01
537:01	DEE	GGPM	*/*	02:01, 04:02
538:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
539:01	DEE	GGPM	*/*	04:02, 02:01
540:01	DED	GGPM	R/T	04:02, 02:01
541:01	DED	DEAV	*/*	09:01, 17:01, 14:01, 03:01, 06:01, 20:01
542:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
543:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
544:01	AAE	DEAM	*/*	13:01, 01:01, 11:01
545:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
546:01	DED	DQAV	*/*	06:01, 20:01, 03:01, 17:01, 09:01, 14:01
547:01	EAE	GGPM	K/I	15:01
548:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
549:01	DEE	GGPM	*/*	04:02, 02:01
550:01	EAE	DEAV	*/*	05:01, 19:01
552:01	DEE	DEAV	*/*	10:01
553:01	AAE	GGPM	*/*	04:01, 23:01
554:01	AAE	GGPM	*/*	04:01, 23:01
555:01	DED	GGPM	*/*	02:01, 04:02
556:01	AAE	GGPM	*/*	04:01, 23:01
557:01	DEE	GGPM	*/*	02:01, 04:02
558:01	EAE	DEAV	R/T	19:01, 05:01
559:01	AAE	GGPM	*/*	04:01, 23:01
560:01	EAE	DEAV	*/*	05:01, 19:01
561:01	AAE	GGPM	*/*	04:01, 23:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
562:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
563:01	AAE	DEAV	*/*	13:01, 01:01, 11:01
564:01	AAE	DEAV	*/*	13:01, 01:01, 11:01
565:01	AAE	DEAV	*/*	13:01, 01:01, 11:01
566:01	DED	DEAV	*/*	06:01, 20:01, 03:01, 17:01, 09:01, 14:01
567:01	DED	DEAV	K/I	06:01, 03:01, 20:01, 09:01, 14:01
568:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
569:01	AAE	GGPM	*/*	04:01, 23:01
571:01	DEE	GGPM	R/T	04:02, 02:01
572:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
573:01	EAE	DEAV	K/I	05:01, 19:01
574:01	DEE	GGPM	*/*	04:02, 02:01
575:01	AAE	GGPM	*/*	04:01, 23:01
576:01	AAE	GGPM	*/*	23:01, 04:01
577:01	DEE	GGPM	*/*	04:02, 02:01
578:01	AAE	GGPM	*/*	04:01, 23:01
579:01	DEE	GGPM	*/*	02:01, 04:02
580:01	AAE	VGPM	*/*	15:01
581:01	DED	GGPM	*/*	02:01, 04:02
582:01	DEE	GGPM	R/T	02:01, 04:02
583:01	AAE	GGPM	*/*	04:01, 23:01
584:01	AAE	GGPM	K/I	15:01
585:01	AAE	VGPM	K/I	15:01
586:01	DEE	GGPM	*/*	04:02, 02:01
587:01	EAE	DEAV	*/*	05:01, 19:01
588:01	EAE	DEAV	*/*	05:01, 19:01
589:01	EAE	DQAV	*/*	05:01, 19:01
590:01	EAE	GGPV	*/*	23:01, 04:01
591:01	AAE	GGPM	*/*	04:01, 23:01
592:01	AAE	GGPR	*/*	04:01, 23:01
593:01	AAE	GGPM	*/*	04:01, 23:01
594:01	DEE	GGPM	*/*	04:02, 02:01
595:01	DEE	GGPM	*/*	04:02, 02:01
596:01	DEE	GGPM	*/*	04:02, 02:01
597:01	AAE	DEAV	*/*	13:01, 01:01, 11:01
599:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
600:01	AAE	DEAV	*/*	13:01, 01:01, 11:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
601:01	DED	GGPM	*/*	02:01, 04:02
602:01	DEE	GGPM	*/*	02:01, 04:02
603:01	DEE	GGPM	R/T	02:01, 04:02
604:01	DEE	GGPM	*/*	02:01, 04:02
605:01	DEA	GGPM	*/*	04:02, 02:01
606:01	DEE	GGPM	*/*	04:02, 02:01
607:01	AAE	GGPM	*/*	04:01, 23:01
608:01	DEE	DEAV	*/*	10:01
609:01	AAE	DEAV	*/*	13:01, 01:01, 11:01
610:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
611:01	EAE	DEAV	*/*	05:01, 19:01
612:01	AAE	DEAV	*/*	13:01, 01:01, 11:01
613:01	DED	DEAV	K/I	20:01, 03:01, 06:01, 09:01, 14:01
614:01	AAE	GGPM	*/*	04:01, 23:01
615:01	AAE	GGPM	R/T	04:01, 23:01
616:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
617:01	DEE	GGPM	R/T	02:01, 04:02
618:01	AAE	GGPM	R/T	04:01, 23:01
619:01	EAE	DEAV	*/*	05:01, 19:01
620:01	DED	GGPM	*/*	04:02, 02:01
621:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 20:01, 06:01
622:01	DEE	GGPM	*/*	02:01, 04:02
623:01	AAE	DEAV	K/I	11:01, 01:01, 13:01
624:01	DEE	GGPM	*/*	04:02, 02:01
625:01	AAE	GGPM	*/*	04:01, 23:01
626:01	AAE	GGPM	R/T	04:01, 23:01
627:01	DEE	GGPM	*/*	04:02, 02:01
628:01	DEE	GGPM	*/*	02:01, 04:02
629:01	DED	DEAV	*/*	14:01, 03:01, 09:01, 20:01, 06:01, 17:01
630:01	DED	DEAV	*/*	09:01, 17:01, 14:01, 03:01, 06:01, 20:01
631:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
632:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
633:01	DEE	DEAV	*/*	10:01
634:01	AAE	DEAV	*/*	13:01, 01:01, 11:01
635:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
636:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
637:01	DEE	GGPM	*/*	02:01, 04:02

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
638:01	EAE	DEAV	*/*	05:01, 19:01
639:01	DEE	GGPM	*/*	02:01, 04:02
640:01	DEE	GGPM	R/T	02:01, 04:02
641:01	DEE	GGPM	*/*	02:01, 04:02
642:01	DAE	GGPM	*/*	04:01, 04:02, 23:01, 02:01
643:01	AAE	GGPM	*/*	04:01, 23:01
644:01	AAE	VGPM	*/*	15:01
645:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
646:01	DEE	GGPM	*/*	04:02, 02:01
647:01	DEE	GGPM	R/T	04:02, 02:01
648:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
649:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
650:01	DEE	DEAV	K/I	10:01
651:01	DED	DEAV	R/T	17:01
652:01	DEE	DEAV	K/I	10:01
653:01	DEE	DEAV	K/I	10:01
654:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
655:01	DEE	GGPM	*/*	02:01, 04:02
656:01	DEE	GGPM	R/T	02:01, 04:02
658:01	AAE	GGPM	*/*	04:01, 23:01
659:01	DEE	GGPM	*/*	02:01, 04:02
660:01	DEE	GGPM	*/*	02:01, 04:02
662:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 09:01, 14:01
663:01	DEE	GGPM	*/*	02:01, 04:02
664:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
665:01	DEE	GGPM	R/T	04:02, 02:01
666:01	AAE	GGPM	R/T	04:01, 23:01
667:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
668:01	EAE	DEAV	K/I	05:01, 19:01
669:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
670:01	AAE	GGPM	R/T	04:01, 23:01
671:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
672:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
673:01	DEE	DEAV	K/I	10:01
674:01	DEE	GGPM	R/T	04:02, 02:01
675:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
676:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
677:01	AAE	GGPM	R/T	04:01, 23:01
678:01	DEE	GGPM	R/T	02:01, 04:02
679:01	AAE	GGPM	R/T	04:01, 23:01
680:01	DEE	GGPM	*/*	02:01, 04:02
681:01	DEE	GGPM	R/T	02:01, 04:02
682:01	AAE	GGPM	R/T	04:01, 23:01
683:01	AAE	GGPM	R/T	04:01, 23:01
684:01	DED	DEAV	*/*	09:01, 17:01, 06:01, 03:01, 14:01, 20:01
685:01	DEE	GGPM	*/*	02:01, 04:02
686:01	AAE	GGPM	*/*	04:01, 23:01
687:01	AAE	GGPM	R/T	04:01, 23:01
688:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
689:01	DED	DEAV	*/*	03:01, 20:01, 06:01, 14:01, 09:01, 17:01
690:01	DEE	GGPM	*/*	04:02, 02:01
692:01	DEE	GGPM	*/*	02:01, 04:02
694:01	AAE	GGPM	*/*	04:01, 23:01
695:01	AAE	VGPM	K/I	15:01
697:01Q	EAE	DEAV	*/*	05:01, 19:01
698:01	DED	DEAV	R/T	17:01
699:01	AAE	GGPM	R/T	04:01, 23:01
701:01	DEE	GGPM	R/T	04:02, 02:01
702:01	AAE	GGPM	K/I	15:01
703:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
704:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
705:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
706:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
707:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
708:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
709:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
710:01	AVE	DEAV	K/I	01:01, 13:01, 11:01
711:01	DEE	DEAV	K/I	10:01
713:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
714:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
715:01	EAE	DEAV	K/I	05:01, 19:01
716:01	AAE	DEAV	*/*	13:01, 01:01, 11:01
717:01	EAE	DEAV	*/*	19:01, 05:01
718:01	EAE	DEAV	*/*	05:01, 19:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
719:01	DED	DEAL	R/T	17:01
720:01	EAE	DEAV	*/*	19:01, 05:01
721:01	EAE	GGPM	R/T	23:01, 04:01
722:01	AAE	GGPM	R/T	04:01, 23:01
723:01	DEE	GGPM	R/T	02:01, 04:02
725:01	DEE	GGPM	R/T	04:02, 02:01
726:01	DEE	GGPM	R/T	04:02, 02:01
727:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
728:01	DED	DEAV	R/T	17:01
729:01	EAE	DEAV	K/I	05:01, 19:01
730:01	DEE	GGPM	R/T	04:02, 02:01
731:01	DEE	GGPM	R/T	04:02, 02:01
733:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
734:01	DEE	GGPM	R/T	04:02, 02:01
735:01	DEE	GGPM	R/T	04:02, 02:01
736:01	DEE	GGPM	R/T	04:02, 02:01
737:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 09:01, 14:01
739:01	AAE	GGPM	R/T	04:01, 23:01
740:01	DEE	NEAV	K/I	10:01
741:01	DEE	GGPM	R/T	04:02, 02:01
742:01	AAE	GGPM	R/T	04:01, 23:01
744:01	EAE	DEAV	R/T	05:01, 19:01
745:01	AAE	VGPM	K/I	15:01
746:01	EAE	DEAV	K/I	19:01, 05:01
747:01	AAE	GGPM	R/T	04:01, 23:01
749:01	AAE	DEAV	*/*	11:01, 01:01, 13:01
750:01	AAE	GGPM	R/T	04:01, 23:01
751:01	DEE	GGPM	R/T	02:01, 04:02
752:01	DEE	VGPM	K/I	18:01
753:01	AAE	GGPM	*/*	04:01, 23:01
755:01	AAE	GGPM	R/T	04:01, 23:01
757:01	AAE	GGPM	R/T	04:01, 23:01
758:01	AAE	GGPM	*/*	04:01, 23:01
759:01	DEE	GGPM	R/T	04:02, 02:01
760:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
761:01	AAE	GGPM	R/T	04:01, 23:01
762:01	DED	GGPM	R/T	04:02, 02:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
763:01	DEE	GGPM	R/T	04:02, 02:01
764:01	EAE	DEAV	K/I	05:01, 19:01
765:01	AAE	GGPM	R/T	04:01, 23:01
766:01	EAE	GGPM	R/T	23:01, 04:01
767:01	AAE	GGPM	R/T	04:01, 23:01
768:01	AAE	VGPM	K/I	15:01
769:01	AAE	GGPM	R/T	04:01, 23:01
770:01	DEE	GGPM	R/T	02:01, 04:02
771:01	DEE	GGPM	R/T	02:01, 04:02
772:01	AAE	GGPM	R/T	04:01, 23:01
773:01	AAE	GGPM	R/T	04:01, 23:01
774:01	DEE	GGPM	R/T	02:01, 04:02
775:01	DEE	GGPM	R/T	04:02, 02:01
776:01	DEE	GGPM	R/T	04:02, 02:01
778:01	EAE	DEAV	K/I	05:01, 19:01
779:01	EAE	GGPM	R/T	23:01, 04:01
780:01	DEE	GGPM	*/*	02:01, 04:02
781:01	DEE	GGPM	R/T	02:01, 04:02
782:01	DEE	GGPM	R/T	04:02, 02:01
783:01	DEE	GGPM	R/T	02:01, 04:02
784:01	AAE	GGPM	R/T	04:01, 23:01
785:01	EAE	DEAV	R/T	19:01, 05:01
787:01	AAE	GGPM	R/T	23:01, 04:01
788:01	AAE	GGPM	*/*	04:01, 23:01
789:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
790:01	EAE	DEAV	R/T	05:01, 19:01
791:01	DEE	DEAV	K/I	10:01
795:01	AAE	GGPM	R/T	04:01, 23:01
796:01	AEE	GGPM	*/*	02:01, 04:02, 23:01, 04:01
797:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
798:01	EAE	DEAV	K/I	05:01, 19:01
799:01	DEE	GGPM	R/T	02:01, 04:02
801:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
802:01	EAE	DEAV	K/I	05:01, 19:01
803:01	AAE	GGPM	R/T	04:01, 23:01
804:01	AAE	GGPM	R/T	04:01, 23:01
805:01	DEE	GGPM	R/T	04:02, 02:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
806:01	AAE	GGPM	R/T	04:01, 23:01
807:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
808:01	AAE	GGPM	R/T	04:01, 23:01
809:01	DEE	GGPM	R/T	04:02, 02:01
810:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
811:01	AAE	GGPM	R/T	04:01, 23:01
812:01	AAE	GGPM	R/T	04:01, 23:01
813:01	AAE	GGPM	R/T	04:01, 23:01
814:01	AAE	GGPM	R/T	04:01, 23:01
815:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
816:01	DEE	GGPM	R/T	02:01, 04:02
817:01	DEE	GGPM	R/T	04:02, 02:01
818:01	DEE	GGPM	R/T	04:02, 02:01
819:01	DEE	GGPM	R/T	02:01, 04:02
820:01	AAE	GGPM	R/T	04:01, 23:01
822:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
823:01	DEE	GGPM	R/T	04:02, 02:01
824:01	AAE	GGPM	R/T	04:01, 23:01
825:01	VAE	DEAV	K/I	01:01, 13:01, 11:01, 05:01, 19:01
826:01	AAE	GGPM	R/T	04:01, 23:01
827:01	DEE	GGPM	R/T	02:01, 04:02
828:01	AAE	GGPM	R/T	04:01, 23:01
829:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
830:01	AAE	GGPM	R/T	23:01, 04:01
832:01	DEE	DEAV	K/I	10:01
833:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
834:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
835:01	AAE	VGPM	R/T	23:01, 04:01
836:01	DEE	GGPM	R/T	02:01, 04:02
837:01	AAE	GGPM	*/*	04:01, 23:01
839:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
840:01	AAE	GGPM	*/*	04:01, 23:01
841:01	DEE	GGPM	R/T	04:02, 02:01
842:01	AAE	GGPM	R/T	04:01, 23:01
843:01	DEE	GGPM	R/T	02:01, 04:02
845:01	DEE	GGPM	R/T	02:01, 04:02
846:01	DED	DEAV	R/T	17:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
847:01	EAE	DEAV	K/I	05:01, 19:01
848:01	EAE	DEAV	K/I	05:01, 19:01
849:01	AAE	GGPM	R/T	04:01, 23:01
850:01	AAE	GGPM	R/T	04:01, 23:01
851:01	EAE	DEAV	K/I	05:01, 19:01
852:01	AAE	GGPM	R/T	04:01, 23:01
853:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
854:01	DED	DEAV	R/T	17:01
855:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
856:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
857:01	DEE	GGPM	R/T	02:01, 04:02
858:01	DEE	GGPM	R/T	04:02, 02:01
859:01	AAE	GGPM	R/T	04:01, 23:01
860:01	EAE	DEAV	K/I	05:01, 19:01
861:01	DEE	GGPM	R/T	02:01, 04:02
863:01	DEE	GGPM	R/T	02:01, 04:02
864:01	DEE	DEAV	K/I	10:01
879:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
880:01	AAE	GGPM	R/T	04:01, 23:01
881:01	DEE	GGPM	R/I	04:02, 02:01
882:01	AAE	GGPM	R/T	04:01, 23:01
883:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
884:01	DEE	GGPM	R/T	02:01, 04:02
885:01	DEE	GGPM	R/T	04:02, 02:01
886:01	DEE	DEAV	K/I	10:01
887:01	DEE	GGPM	R/T	04:02, 02:01
888:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
889:01	DEE	GGPM	R/T	02:01, 04:02
890:01	DEE	GGPM	R/T	02:01, 04:02
891:01	DEE	DEAV	*/*	10:01
892:01	DEE	DEAV	K/I	10:01
893:01	AAE	DEAV	*/*	13:01, 01:01, 11:01
895:01	AAE	GGPM	*/*	04:01, 23:01
896:01	AAE	VGPM	K/I	15:01
897:01	DEE	VGPM	K/I	18:01
898:01	DEE	DEAV	K/I	10:01
899:01	DED	DEAV	R/T	17:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
900:01	DEE	VGPM	K/I	18:01
901:01	AAE	DEAV	R/T	01:01, 13:01, 11:01
902:01	DEE	DEAV	R/T	17:01
903:01	DEE	VGPM	*/*	18:01, 28:01
904:01	AAE	DEAV	R/T	01:01, 13:01, 11:01
905:01	DED	DEAV	R/T	17:01
906:01	DED	DEAV	R/T	17:01
907:01	AAE	DEAV	R/T	11:01, 13:01, 01:01
908:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
909:01	DED	DEAV	K/I	03:01, 06:01, 09:01, 14:01, 20:01
910:01	AAE	VGPM	R/T	04:01, 23:01
912:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
913:01	AAE	VGPM	R/T	23:01, 04:01
914:01	DED	DEAV	R/T	17:01
915:01	AAE	GGPM	R/T	04:01, 23:01
916:01	AAE	GGPM	R/T	04:01, 23:01
918:01	DEE	VGPM	K/I	18:01
920:01	DED	DEAV	K/I	06:01, 09:01, 03:01, 20:01, 14:01
921:01	AAE	GGPM	R/T	04:01, 23:01
922:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
923:01	EAE	DEAV	K/I	05:01, 19:01
924:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
926:01	AAE	GGPM	R/T	04:01, 23:01
927:01	DEE	GGPM	R/T	04:02, 02:01
928:01	EAE	GGPM	R/T	04:01, 23:01
929:01	EAE	DEAV	K/I	05:01, 19:01
930:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
931:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
932:01	AAE	GGPM	R/T	04:01, 23:01
933:01	DEE	GGPM	R/T	04:02, 02:01
934:01Q	AAE	GGPM	R/T	04:01, 23:01
935:01Q	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
936:01Q	DEE	GGPM	R/T	04:02, 02:01
937:01	AAE	DEAV	R/T	11:01, 13:01, 01:01
938:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
939:01	AAE	GGPM	R/T	04:01, 23:01
940:01	DEE	DEAV	R/T	17:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
942:01	DEE	VGPM	R/T	28:01
943:01	DEE	GGPM	R/T	04:02, 02:01
944:01	DED	DEAV	R/T	17:01
945:01	AAE	DEAV	K/I	01:01, 11:01, 13:01
946:01	DED	DEAV	T/I	03:01, 14:01, 20:01, 06:01, 09:01
947:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
948:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
949:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
951:01	EAE	DEAV	K/I	05:01, 19:01
952:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
953:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
954:01	DEE	GGPM	R/T	04:02, 02:01
955:01	DEE	GGPM	R/T	02:01, 04:02
956:01	DED	DEAV	R/T	17:01
957:01	AAE	GGPM	R/T	04:01, 23:01
958:01	DEE	GGPM	R/T	04:02, 02:01
961:01	EAE	GGPM	R/T	23:01, 04:01
962:01	EAE	GGPM	R/T	23:01, 04:01
963:01	DEE	GGPM	R/T	02:01, 04:02
964:01	DEE	GGPM	R/T	02:01, 04:02
965:01	EAE	DEAV	K/I	19:01, 05:01
966:01	AAE	GGPM	R/T	04:01, 23:01
967:01	DEE	GGPM	R/I	02:01, 04:02
968:01	DEE	DEAV	R/T	17:01
969:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
970:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
971:01	EAE	DEAV	K/I	05:01, 19:01
972:01	AAE	GGPM	R/T	23:01, 04:01
973:01	DEE	GGPM	R/T	02:01, 04:02
975:01	DEE	GGPM	R/T	02:01, 04:02
976:01	AAE	DEAV	K/I	01:01, 11:01, 13:01
977:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
978:01	AAE	GGPM	R/T	04:01, 23:01
979:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
980:01	EAE	DEAV	K/I	05:01, 19:01
981:01	DEE	GGPM	R/T	04:02, 02:01
982:01	EAE	DEAV	K/I	19:01, 05:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
983:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
987:01	DED	GGPM	K/I	18:01
988:01	AAE	GGPM	R/T	04:01, 23:01
989:01	AAE	GGPM	R/T	04:01, 23:01
990:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
991:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
992:01	AAE	GGPM	R/T	04:01, 23:01
993:01	AAE	GGPM	R/T	04:01, 23:01
994:01	DED	DEAV	K/I	20:01, 03:01, 06:01, 09:01, 14:01
996:01	AAE	DEAV	R/T	13:01, 01:01, 11:01
997:01	AAE	GGPM	R/T	04:01, 23:01
998:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
999:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1000:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1001:01	AAE	GGPM	K/T	04:01, 23:01
1002:01	AAE	GGPM	R/T	04:01, 23:01
1003:01	AAE	GGPM	R/T	04:01, 23:01
1004:01	AAE	GGPM	R/T	04:01, 23:01
1005:01	DEE	GGPM	R/T	04:02, 02:01
1006:01	DEE	DEAV	*/*	10:01
1007:01	DEE	DEAV	K/I	10:01
1008:01	EAE	DEAV	K/I	19:01, 05:01
1009:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
1010:01	AAE	GGPM	R/T	04:01, 23:01
1011:01	AAE	GGPM	R/T	04:01, 23:01
1012:01	AAE	DEAV	R/T	01:01, 13:01, 11:01
1013:01	DEE	GGPM	R/T	04:02, 02:01
1014:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1015:01	EAE	DEAV	K/I	05:01, 19:01
1016:01	AAE	GGPM	R/T	04:01, 23:01
1017:01	DED	DEAV	R/T	17:01
1018:01	EAE	DEAV	K/I	05:01, 19:01
1019:01	EAE	DEAV	K/I	05:01, 19:01
1020:01	DEE	GGPM	R/T	04:02, 02:01
1021:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1022:01	DED	DEAV	E/I	06:01, 20:01, 03:01, 09:01, 14:01
1023:01	AAE	GGPM	R/T	04:01, 23:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1024:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1025:01	DEE	GGPM	R/T	04:02, 02:01
1026:01	EAE	DEAV	R/T	05:01, 19:01
1027:01	DED	DEAV	R/T	17:01
1028:01	DEE	GGPM	R/T	02:01, 04:02
1030:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1031:01	DEE	GGPM	R/T	04:02, 02:01
1032:01	DED	DEAV	R/I	17:01, 09:01, 06:01, 14:01, 20:01, 03:01
1033:01	AAE	GGPM	R/T	04:01, 23:01
1034:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1035:01	DEE	GGPM	R/T	04:02, 02:01
1036:01	DEE	GGPM	R/N	02:01, 04:02
1037:01	DEE	GGPM	K/I	18:01
1038:01Q	AAE	DEAV	K/I	01:01, 13:01, 11:01
1039:01	DEE	GGPM	R/T	04:02, 02:01
1040:01	AAE	GGPM	R/T	04:01, 23:01
1042:01	AAE	GGPM	R/T	04:01, 23:01
1043:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
1046:01	AAE	GGPM	R/T	04:01, 23:01
1047:01	DED	DEAV	R/T	17:01
1048:01	AAE	GGPM	R/T	04:01, 23:01
1049:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1050:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1051:01	DEE	GGPM	R/T	02:01, 04:02
1052:01	DED	DEAV	R/T	17:01
1053:01	DEE	GGPM	R/T	02:01, 04:02
1054:01	AAE	VGPM	K/I	15:01
1055:01	DEE	GGPM	R/T	02:01, 04:02
1056:01	DEE	GGPM	R/T	02:01, 04:02
1057:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1058:01	EAG	DEAV	K/I	05:01, 19:01
1059:01	DEE	GGPM	R/T	02:01, 04:02
1060:01	AAE	GGPM	R/T	04:01, 23:01
1061:01	EAE	DEAV	K/I	05:01, 19:01
1062:01	AAE	GGPM	R/T	04:01, 23:01
1063:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
1064:01	AAE	GGPM	R/T	04:01, 23:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1065:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1066:01	AAE	GGPM	R/T	04:01, 23:01
1067:01	DED	DEAV	K/I	09:01, 06:01, 14:01, 20:01, 03:01
1068:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1069:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1071:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1072:01	DEE	GGPM	R/T	04:02, 02:01
1073:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1074:01	AAE	GGPM	R/T	04:01, 23:01
1075:01	DEE	GGPM	R/T	04:02, 02:01
1076:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1077:01	DEE	GGPM	R/T	02:01, 04:02
1078:01	AAE	GGLM	*/*	23:01, 04:01
1080:01	AAE	GGPM	R/T	04:01, 23:01
1081:01	AAE	GGPM	R/T	04:01, 23:01
1082:01	DEE	GGPM	R/T	02:01, 04:02
1083:01	DEE	GGPM	R/T	04:02, 02:01
1085:01	DEE	GGPM	R/T	04:02, 02:01
1086:01	AAE	GGPM	R/T	04:01, 23:01
1087:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 09:01, 14:01
1088:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1089:01	DEE	GGPM	R/T	02:01, 04:02
1090:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1091:01	AAE	GGPM	R/T	04:01, 23:01
1092:01Q	DEE	...M	R/T	04:02, 02:01, 28:01
1093:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1094:01	DEE	GGPM	R/T	02:01, 04:02
1095:01	EAE	DEAV	K/I	05:01, 19:01
1096:01	AAD	DEAV	K/I	01:01, 11:01, 13:01
1097:01	AAE	GGPM	R/T	04:01, 23:01
1099:01	EAE	DEAV	K/I	05:01, 19:01
1100:01	AAE	GGPM	R/T	04:01, 23:01
1101:01	EAE	DEAV	K/I	19:01, 05:01
1102:01	DEE	GGPM	R/T	02:01, 04:02
1103:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1104:01	DED	GGPM	K/I	18:01
1105:01	AAE	DEAV	K/I	13:01, 01:01, 11:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1106:01	DEE	GGPM	R/T	04:02, 02:01
1107:01	DEE	GGPI	R/T	02:01, 04:02
1108:01	AAE	GGPM	R/T	04:01, 23:01
1109:01	AAE	VGPM	R/T	04:01, 23:01
1110:01	DEE	GGPM	R/T	04:02, 02:01
1111:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 09:01, 14:01
1113:01	AAE	GGPM	R/T	04:01, 23:01
1114:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1115:01	DEE	GGPM	R/T	02:01, 04:02
1116:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1117:01	EAE	DEAV	K/I	05:01, 19:01
1118:01	EAE	DEAV	K/I	05:01, 19:01
1119:01	EAE	DEAV	K/I	05:01, 19:01
1120:01	EAE	DEAV	K/I	05:01, 19:01
1122:01	AAE	GGPM	R/T	04:01, 23:01
1123:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1124:01	DEE	GGPM	R/T	04:02, 02:01
1125:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1126:01	DEE	DEAV	K/I	10:01
1127:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 09:01, 14:01
1128:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
1129:01	AAE	GGPM	R/T	04:01, 23:01
1130:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1131:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1132:01	AAE	GGPM	R/T	04:01, 23:01
1133:01	AAD	DEAV	K/I	01:01, 11:01, 13:01
1134:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1136:01	DEE	VGPM	K/I	18:01
1137:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1138:01	AAE	GGPM	/*	04:01, 23:01
1139:01	AAE	GGPM	R/T	04:01, 23:01
1140:01	DEE	DEAV	R/T	17:01
1141:01	AAE	DEAV	/*	01:01, 13:01, 11:01
1142:01	DEE	VGPM	K/I	18:01
1143:01	EAE	DEAV	K/I	05:01, 19:01
1144:01	AAE	GGPM	R/T	04:01, 23:01
1145:01	AAE	DEAV	K/I	13:01, 01:01, 11:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1146:01	AAE	GGPM	R/T	04:01, 23:01
1147:01	AAE	DEAV	K/I	01:01, 11:01, 13:01
1148:01Q	AAE	GGPM	R/T	04:01, 23:01
1149:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
1150:01	DEE	DEAV	*/*	10:01
1151:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1152:01	AAE	GGPM	R/T	04:01, 23:01
1153:01	DEE	GGPM	R/T	04:02, 02:01
1155:01	AAE	GGPM	R/T	04:01, 23:01
1156:01	EAE	DEAV	K/I	05:01, 19:01
1157:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1158:01	DED	DEAV	R/T	17:01
1159:01	DEE	GGPM	*/*	02:01, 04:02
1160:01	DEE	GGPM	R/T	02:01, 04:02
1161:01	AAE	GGPM	R/T	04:01, 23:01
1162:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1163:01	DEE	GGPM	*/*	02:01, 04:02
1164:01	AAE	GGPM	R/T	04:01, 23:01
1165:01	DEE	VGPM	K/I	18:01
1166:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
1167:01	AAE	GGPM	R/T	04:01, 23:01
1168:01	DEE	DEAV	K/I	10:01
1170:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1171:01	DEE	GGPM	R/T	04:02, 02:01
1172:01	EAE	DEAV	K/I	05:01, 19:01
1173:01	AAE	GGPM	R/T	04:01, 23:01
1174:01	DED	GGPM	*/*	04:02, 02:01
1175:01	DEE	GGPM	R/T	02:01, 04:02
1176:01	DEE	GGPM	*/*	02:01, 04:02
1177:01	AAE	GGPM	R/T	04:01, 23:01
1178:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
1179:01	DEE	GGPM	R/T	02:01, 04:02
1180:01	EAE	DEAV	K/I	05:01, 19:01
1181:01	AAE	GGPM	R/T	04:01, 23:01
1182:01	DED	DEAV	*/*	09:01, 17:01, 14:01, 03:01, 06:01, 20:01
1183:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1184:01	AAE	GGPM	R/T	04:01, 23:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1185:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1186:01	EAE	DEAV	K/I	05:01, 19:01
1187:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1188:01	EAE	GGPM	R/T	23:01, 04:01
1189:01	EAE	DEAV	K/I	19:01, 05:01
1190:01	EAE	DEAV	R/T	05:01, 19:01
1192:01	AAE	VGPM	K/I	15:01
1194:01	DEE	GGPM	R/T	04:02, 02:01
1195:01	AAE	GGPM	*/*	04:01, 23:01
1196:01	AAE	GGPM	R/T	04:01, 23:01
1197:01	DEE	GGPM	R/T	04:02, 02:01
1198:01	DEE	GGPM	R/T	02:01, 04:02
1199:01	EAE	DEAV	K/I	05:01, 19:01
1200:01	DEE	GGPM	R/T	02:01, 04:02
1201:01	DEE	VGPM	K/I	18:01
1203:01	DED	DEAV	R/T	17:01
1204:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
1205:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1206:01	AAE	GGPM	R/T	04:01, 23:01
1207:01	AAE	GGPM	R/T	04:01, 23:01
1208:01	AAE	GGPM	R/T	04:01, 23:01
1209:01	EAE	GGPM	R/T	23:01, 04:01
1210:01	DEE	GGPM	R/T	04:02, 02:01
1211:01	DED	DEAV	R/T	17:01
1212:01	AAE	GGPM	R/T	04:01, 23:01
1213:01	EAE	DEAV	K/I	05:01, 19:01
1214:01	AAE	GGPM	R/T	04:01, 23:01
1215:01	AAE	GGPM	R/T	04:01, 23:01
1216:01	AAE	GGPM	R/T	04:01, 23:01
1217:01	AAE	GGPM	R/T	04:01, 23:01
1218:01	AAE	GGPM	R/T	04:01, 23:01
1219:01	DEE	VGPM	*/*	28:01, 18:01
1220:01	AAE	GGPM	R/T	04:01, 23:01
1221:01	AAE	GGPM	*/*	04:01, 23:01
1222:01	AAE	GGPM	R/T	04:01, 23:01
1223:01	AAG	GGPM	R/T	04:01, 23:01
1224:01	DEE	DEAV	K/I	10:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1225:01	AAE	GGPM	R/T	04:01, 23:01
1226:01	AAE	GGPM	R/T	04:01, 23:01
1227:01	DEE	GGPM	R/T	02:01, 04:02
1229:01	EAE	DEAV	K/I	19:01, 05:01
1230:01	DEE	GGPM	R/T	02:01, 04:02
1231:01	AAE	GGPM	R/T	04:01, 23:01
1232:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1233:01	DED	DEAV	R/T	17:01
1234:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
1235:01	DEE	GGPM	R/T	04:02, 02:01
1236:01	DEE	GEPM	R/T	04:02, 02:01
1237:01	AAE	GGPM	R/T	04:01, 23:01
1238:01	AAE	GGPM	R/T	04:01, 23:01
1239:01	DEE	GGPM	K/T	04:02, 02:01
1240:01	EAE	DEAV	K/I	05:01, 19:01
1241:01	AAE	GGPM	R/T	04:01, 23:01
1242:01	AAE	GGPM	R/T	04:01, 23:01
1243:01	DEE	GGPM	R/T	02:01, 04:02
1244:01	AAE	GGPM	R/I	04:01, 23:01
1245:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1246:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1247:01	DEE	GGPM	R/T	02:01, 04:02
1248:01	DEE	GGPM	R/T	02:01, 04:02
1249:01	AAE	GGPM	R/T	04:01, 23:01
1250:01	AAE	VGPM	K/I	15:01
1251:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 09:01, 14:01
1252:01	AAE	VGPM	K/I	15:01
1253:01	DEE	GGPM	R/T	02:01, 04:02
1254:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1255:01	EAE	DEAV	K/I	19:01, 05:01
1257:01	EAE	DEAV	K/I	05:01, 19:01
1258:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
1259:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 09:01, 14:01
1261:01	DEE	DEAV	K/I	10:01
1262:01	AAE	GGPM	R/T	04:01, 23:01
1263:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1264:01	AAE	DEAV	K/I	11:01, 13:01, 01:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1265:01	DED	DEAV	R/T	17:01
1266:01	DEE	GGPM	R/T	02:01, 04:02
1267:01	DEE	GGPM	R/T	04:02, 02:01
1268:01	AAE	GGPM	R/T	04:01, 23:01
1270:01	DEE	GGPM	R/T	04:02, 02:01
1271:01	AAE	GGPM	R/T	04:01, 23:01
1272:01	EAE	DEAV	K/I	05:01, 19:01
1273:01	EAE	DEAV	K/I	05:01, 19:01
1274:01	AAE	GGPM	R/T	04:01, 23:01
1276:01	DEE	GGPM	R/T	02:01, 04:02
1277:01	AAE	GGPV	R/T	04:01, 23:01
1278:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 09:01, 14:01
1280:01	DEE	GGPM	R/T	04:02, 02:01
1281:01	DEE	DEAV	*/*	10:01
1282:01	EAE	DEAV	K/I	19:01, 05:01
1283:01	DEE	GGPM	R/T	04:02, 02:01
1284:01	AAE	GGPM	R/T	04:01, 23:01
1286:01	DEE	VGPM	K/I	18:01
1287:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1289:01	EAE	DEAV	K/I	05:01, 19:01
1290:01	DEE	GGPM	R/T	02:01, 04:02
1292:01	AAE	GGPM	R/T	04:01, 23:01
1293:01	EAE	DEAV	K/I	05:01, 19:01
1294:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1295:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1296:01	DEE	SGPM	R/T	02:01, 04:02, 28:01
1297:01	AAE	GGPM	R/T	04:01, 23:01
1298:01	DEE	GGPM	R/A	02:01, 04:02
1300:01	AAE	GGPM	R/T	04:01, 23:01
1301:01	AAE	GGPM	R/T	04:01, 23:01
1302:01	EAE	DEAV	K/I	05:01, 19:01
1303:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
1304:01	AAE	GGPM	R/T	04:01, 23:01
1305:01	EAD	DEAV	K/I	05:01, 19:01
1306:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1307:01	DEE	GGPM	K/I	18:01
1308:01	AAE	GGPM	R/T	04:01, 23:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1309:01	AAE	GGPM	R/T	04:01, 23:01
1310:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1311:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 09:01, 14:01
1312:01	DEE	GGPM	R/T	02:01, 04:02
1313:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
1314:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1315:01	DEE	GGPM	R/T	02:01, 04:02
1316:01	AAE	GGPM	R/T	04:01, 23:01
1317:01Q	AAE	GGPM	R/T	04:01, 23:01
1318:01	EAE	DEAV	K/I	05:01, 19:01
1319:01	DEE	GWPM	R/T	04:02, 02:01
1320:01	DEE	GGPM	R/T	02:01, 04:02
1321:01	AAE	GGPM	R/T	04:01, 23:01
1322:01	AAE	GGPM	R/T	04:01, 23:01
1323:01	DEE	GGPM	R/T	02:01, 04:02
1324:01	DEE	VGPM	K/I	18:01
1326:01	DEE	GGPM	R/T	02:01, 04:02
1327:01	AAE	GGPM	R/T	04:01, 23:01
1328:01	AAE	GGPM	R/T	04:01, 23:01
1329:01	AAE	DEAV	K/I	11:01, 01:01, 13:01
1330:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 09:01, 14:01
1331:01	DEE	GGPM	K/I	18:01
1333:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1335:01	DEE	GGPM	R/T	02:01, 04:02
1336:01	AAE	VGPM	K/I	15:01
1337:01	AAE	GGPM	/*	23:01, 04:01
1339:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1340:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1341:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1342:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1343:01	AAE	GGPM	R/T	04:01, 23:01
1344:01	DEE	GGPM	R/T	02:01, 04:02
1345:01	AAE	GGPM	R/T	04:01, 23:01
1346:01	DEE	GGPM	R/T	04:02, 02:01
1347:01	DEE	GGPM	R/T	02:01, 04:02
1348:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1349:01	EAE	DEAV	K/I	19:01, 05:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1352:01	DEE	GGPM	R/T	02:01, 04:02
1353:01	AAE	DEAV	R/T	13:01, 01:01, 11:01
1354:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1355:01	DED	DEAV	/*	14:01, 03:01, 09:01, 20:01, 06:01, 17:01
1356:01	AAE	GGPM	R/T	04:01, 23:01
1358:01	AAE	GGPM	R/T	04:01, 23:01
1359:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1360:01	DEE	GGPM	K/I	18:01
1361:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1362:01	AAE	GGPM	R/T	04:01, 23:01
1363:01	DEE	GGPM	R/T	02:01, 04:02
1365:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1366:01	DED	DEAV	K/I	09:01, 03:01, 06:01, 14:01, 20:01
1367:01	DED	DEAV	R/T	17:01
1368:01	DEE	GGPM	R/T	02:01, 04:02
1369:01	DEE	GGPM	R/T	02:01, 04:02
1370:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1371:01	DEE	GGPM	R/T	04:02, 02:01
1372:01	DEE	GGPM	R/T	02:01, 04:02
1373:01	DED	DEAE	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1374:01	AAE	GGPM	R/T	04:01, 23:01
1376:01	EAE	GGPM	R/T	23:01, 04:01
1377:01	AAE	GGPM	R/T	04:01, 23:01
1378:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
1379:01	AAE	GGPM	R/T	04:01, 23:01
1380:01	DEE	GGPM	R/T	04:02, 02:01
1381:01	DEE	GGPM	R/T	02:01, 04:02
1382:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1383:01	DEE	GGPM	K/I	18:01
1384:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1385:01	AAE	GGPM	R/T	04:01, 23:01
1386:01	DEE	DEAV	K/I	10:01
1387:01	AAE	GGPM	R/T	04:01, 23:01
1388:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1389:01	DED	DEAV	K/I	20:01, 03:01, 06:01, 14:01, 09:01
1390:01	AAE	GGPM	R/T	04:01, 23:01
1391:01	AAE	GGPM	R/T	04:01, 23:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1392:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1393:01	DEE	GGPM	R/T	02:01, 04:02
1394:01	DED	DEAV	R/T	17:01
1395:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1396:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1397:01	DED	DEAV	R/T	17:01
1399:01	AAE	GGPM	K/I	15:01
1400:01	EAE	DEAV	K/I	05:01, 19:01
1401:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1402:01	DEE	GGPM	R/T	02:01, 04:02
1403:01	EAE	GGPM	R/T	23:01, 04:01
1404:01	DEE	GGPM	R/T	04:02, 02:01
1405:01	DEE	GGPM	R/T	02:01, 04:02
1406:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1407:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1408:01	DEE	GGPM	R/T	02:01, 04:02
1409:01	AAE	GGPM	R/T	04:01, 23:01
1410:01	DEE	GGPM	R/T	04:02, 02:01
1411:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 09:01, 14:01
1412:01	AAE	GGPM	R/T	04:01, 23:01
1413:01	AAE	GGPM	R/T	04:01, 23:01
1414:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1417:01	DEE	GGPM	R/T	02:01, 04:02
1418:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1419:01	DEE	GGPM	R/T	02:01, 04:02
1420:01	AAE	GGPM	R/T	04:01, 23:01
1421:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1422:01	DED	VGPM	K/I	18:01
1424:01	DEE	GGPM	R/T	04:02, 02:01
1425:01	DEE	GGPM	R/T	04:02, 02:01
1426:01	DED	DEAV	K/I	20:01, 03:01, 06:01, 14:01, 09:01
1427:01	AAE	VGPM	K/I	15:01
1428:01	EAE	GGPM	R/T	23:01, 04:01
1429:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1431:01	DED	DEAV	K/I	09:01, 06:01, 14:01, 20:01, 03:01
1432:01	DED	DEAV	K/I	09:01, 03:01, 06:01, 14:01, 20:01
1433:01	AAE	GGPM	R/T	04:01, 23:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1434:01	AAE	VGPM	K/I	15:01
1435:01	DED	DEAV	R/T	17:01
1436:01	AAE	GGPM	R/T	04:01, 23:01
1437:01	EAE	GGPM	R/T	23:01, 04:01
1438:01	EAE	DEAV	K/I	05:01, 19:01
1441:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1443:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1444:01Q	AAE	GGPM	R/T	04:01, 23:01
1445:01	DEE	GGPM	R/T	04:02, 02:01
1446:01	AAE	GGPM	R/T	04:01, 23:01
1447:01	AAE	GGPM	*/*	04:01, 23:01
1448:01	DED	DEAV	*/*	17:01, 09:01, 06:01, 14:01, 20:01, 03:01
1450:01	AAE	GGPM	R/T	04:01, 23:01
1451:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1452:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
1453:01	AAE	GGPM	R/T	04:01, 23:01
1454:01	AAE	GGPM	*/*	04:01, 23:01
1456:01	DEE	GGPM	R/T	02:01, 04:02
1457:01	EAE	DEAV	K/I	05:01, 19:01
1458:01	DED	DEAV	R/T	17:01
1459:01	AAE	GGPM	R/T	04:01, 23:01
1460:01	DEE	GGPM	R/T	04:02, 02:01
1461:01	DEE	GGPM	*/*	02:01, 04:02
1462:01	EAE	DEAV	K/I	05:01, 19:01
1464:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1465:01	AAE	GGPM	R/T	04:01, 23:01
1466:01	DED	DEAV	*/*	14:01, 03:01, 09:01, 17:01, 20:01, 06:01
1467:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
1468:01	DEE	GGPM	R/T	02:01, 04:02
1469:01	DEE	DEAV	K/I	10:01
1470:01	DEE	DEAV	K/I	10:01
1471:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 09:01, 14:01
1472:01	AAE	GGPM	R/T	04:01, 23:01
1473:01	EAE	DEAV	K/I	05:01, 19:01
1474:01	DED	GGPM	K/I	18:01
1475:01	DED	DEAV	R/T	17:01
1476:01	AAE	GGPM	R/T	04:01, 23:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1477:01	EAE	DEAV	K/I	05:01, 19:01
1479:01	DEE	GGPM	R/T	04:02, 02:01
1480:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1481:01	EAE	DEAV	K/I	05:01, 19:01
1483:01	EAE	GGPM	R/T	23:01, 04:01
1484:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1485:01	DEE	GGPM	R/T	04:02, 02:01
1486:01Q	DEE	GGPM	R/T	02:01, 04:02
1489:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1490:01	DEE	DEAV	K/I	10:01
1491:01	EAE	DEAV	K/I	05:01, 19:01
1492:01	EAE	DEAV	K/I	19:01, 05:01
1493:01	EAE	GGPM	K/I	15:01
1494:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1495:01	DEE	GGPM	R/T	02:01, 04:02
1496:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1497:01	EAE	DEAV	K/I	05:01, 19:01
1498:01	EAE	GGPM	R/T	23:01, 04:01
1499:01	AAE	VGPM	K/I	15:01
1501:01	AAE	YEAV	K/I	11:01, 13:01, 01:01
1502:01	DED	DEAV	K/I	20:01, 03:01, 06:01, 14:01, 09:01
1503:01	AAE	GGPM	R/T	04:01, 23:01
1504:01	EAE	DEAV	K/I	05:01, 19:01
1505:01	DEE	GGPM	R/T	04:02, 02:01
1506:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1507:01	DEE	GGPM	R/T	04:02, 02:01
1508:01	EAE	DEAV	K/I	05:01, 19:01
1509:01	DEE	GGPM	R/T	04:02, 02:01
1510:01	AAE	GGPM	R/T	04:01, 23:01
1511:01	EAE	DEAV	K/I	05:01, 19:01
1513:01	AAE	GGPM	R/T	04:01, 23:01
1514:01	EAE	DEAV	K/I	05:01, 19:01
1515:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1516:01	EAE	DEAV	R/T	19:01, 05:01
1518:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1519:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1520:01	AAE	GGPM	R/T	23:01, 04:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1521:01	AAD	DEAV	K/I	11:01, 13:01, 01:01
1522:01	DEE	GGPM	R/T	02:01, 04:02
1523:01	DEE	GGPM	R/T	04:02, 02:01
1524:01	DED	DEAV	K/I	20:01, 03:01, 06:01, 14:01, 09:01
1525:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1527:01	AAE	DEAV	R/T	01:01, 13:01, 11:01
1528:01	DEE	GGPM	R/T	02:01, 04:02
1529:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1530:01	DEE	GGPM	R/T	04:02, 02:01
1531:01	DEE	DEAV	K/I	10:01
1532:01	DED	DEAV	R/T	17:01
1533:01	DEE	GGPM	R/T	04:02, 02:01
1534:01	EAE	DEAV	K/I	19:01, 05:01
1535:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1536:01	DEE	DEAV	R/T	17:01
1537:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1539:01	DED	DEAV	R/T	17:01
1540:01	DEE	GGPM	R/T	04:02, 02:01
1541:01	AAE	GGPM	R/T	04:01, 23:01
1543:01	DEE	DEAV	R/T	17:01
1544:01	DEE	GGPM	K/I	18:01
1545:01	AAE	DEAV	K/I	11:01, 01:01, 13:01
1546:01	DED	GGPM	K/I	18:01
1547:01	DEE	GGPM	R/T	04:02, 02:01
1549:01	EAE	DEAV	K/I	19:01, 05:01
1550:01	EAE	GGPM	R/T	23:01, 04:01
1551:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1552:01	DEE	GGPM	R/T	04:02, 02:01
1553:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
1554:01	AAE	GGPM	R/T	04:01, 23:01
1555:01	DED	DEAV	R/T	17:01
1556:01	DED	DEAV	R/T	17:01
1557:01	DEE	GGPM	R/T	02:01, 04:02
1558:01	DEE	DEAV	R/T	17:01
1559:01	DEE	DEAV	K/I	10:01
1560:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1561:01	AAE	DEAV	K/I	01:01, 13:01, 11:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1562:01	DEE	DEAV	K/I	10:01
1563:01	DEE	GEAV	R/T	17:01
1564:01	DEE	GGPM	R/T	02:01, 04:02
1565:01	AAE	GGPI	R/T	04:01, 23:01
1566:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1567:01	EAE	DEAV	K/I	05:01, 19:01
1568:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
1569:01	AAE	GGPM	R/T	04:01, 23:01
1570:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1571:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1572:01	AAE	GGPM	R/T	04:01, 23:01
1573:01	AAE	DEAV	*/*	01:01, 13:01, 11:01
1574:01	DEE	GGPM	R/T	04:02, 02:01
1575:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1576:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
1577:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1578:01	DEE	GGPM	R/T	04:02, 02:01
1579:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1580:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1582:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1583:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1584:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1585:01	AAE	GGPM	R/T	04:01, 23:01
1586:01	DEE	GGPM	R/T	04:02, 02:01
1587:01	EAE	DEAV	K/I	19:01, 05:01
1589:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1590:01	AAE	GGPM	R/T	04:01, 23:01
1591:01	DEE	GGPM	R/T	04:02, 02:01
1592:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1593:01	DEE	GGPM	R/T	02:01, 04:02
1594:01	DEE	GGPM	R/T	04:02, 02:01
1595:01	DEE	GGPM	R/T	02:01, 04:02
1596:01	EAE	DEAV	R/T	19:01, 05:01
1597:01	EAE	DEAV	R/T	19:01, 05:01
1598:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1599:01	DEE	GGPM	R/T	04:02, 02:01
1600:01	AAE	GGPM	K/I	15:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1601:01	EAE	DEAV	K/I	05:01, 19:01
1602:01	AAE	GGPM	R/T	04:01, 23:01
1603:01	EAE	DEAV	K/I	05:01, 19:01
1604:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1605:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1606:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1608:01	AAE	GGPM	R/T	04:01, 23:01
1609:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1610:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1611:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1613:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1614:01	DED	DEAV	R/T	17:01
1615:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1616:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1617:01	EAE	DEAV	K/I	05:01, 19:01
1618:01	DEE	VGPM	K/I	18:01
1619:01	DEE	GGPM	R/T	04:02, 02:01
1620:01	EAE	DEAV	K/I	05:01, 19:01
1621:01	DEE	GGPM	R/T	02:01, 04:02
1622:01Q	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1623:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1624:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1625:01	AAE	GGPM	R/T	04:01, 23:01
1626:01Q	AAE	DEAV	K/I	01:01, 13:01, 11:01
1627:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1628:01	AAE	GGPM	R/T	04:01, 23:01
1629:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1630:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1631:01	DEE	GGPM	R/T	02:01, 04:02
1632:01	DEE	GGPM	R/T	02:01, 04:02
1633:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1634:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1635:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
1636:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1637:01	DEE	GGLM	R/T	04:02, 02:01
1638:01	DEE	GGPM	R/T	04:02, 02:01
1639:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1640:01	DEE	GGPM	R/T	04:02, 02:01
1641:01	EAE	GGPM	R/T	23:01, 04:01
1642:01	DEE	DEAV	K/I	10:01
1643:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1644:01	DEE	GGPM	R/T	02:01, 04:02
1646:01	AAE	GGPM	R/T	04:01, 23:01
1647:01	DEE	GGPM	R/T	02:01, 04:02
1648:01	AAE	GGPM	R/T	04:01, 23:01
1649:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1651:01	DEE	GGPV	R/T	04:02, 02:01
1652:01	DEE	GGPM	R/T	02:01, 04:02
1653:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1654:01	DEE	VGPM	R/T	28:01
1655:01	DEE	DEAV	R/T	17:01
1656:01	EAE	DEAV	K/I	05:01, 19:01
1657:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1658:01	AAE	GGPM	R/T	04:01, 23:01
1659:01	DAE	GGPM	R/T	02:01, 04:02, 23:01, 04:01
1664:01	AAE	GGPM	R/T	04:01, 23:01
1665:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1666:01	DED	DEAV	R/T	17:01
1668:01	AAE	GGPM	R/T	23:01, 04:01
1669:01	AAE	GGPM	R/T	04:01, 23:01
1670:01	DEE	GGPR	R/T	02:01, 04:02
1671:01	DEE	GGPM	R/T	04:02, 02:01
1672:01	DEE	GGPM	R/T	02:01, 04:02
1673:01	EAE	DEAV	K/I	19:01, 05:01
1674:01	DEE	GGPM	R/T	04:02, 02:01
1675:01	DEE	GGPM	R/T	04:02, 02:01
1676:01	DEE	GGPM	R/T	02:01, 04:02
1678:01	AAE	GGPM	R/T	04:01, 23:01
1679:01	DEE	GGPM	R/T	04:02, 02:01
1680:01	AAE	GGPM	R/T	04:01, 23:01
1681:01	AAE	GGPM	R/T	04:01, 23:01
1682:01	AAE	GGPM	R/T	04:01, 23:01
1683:01	AAE	GGPM	K/I	15:01
1684:01	DEE	GGPM	R/T	02:01, 04:02

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1685:01	DEE	GGPM	R/T	04:02, 02:01
1687:01	DEE	GGPM	R/T	02:01, 04:02
1688:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1689:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1690:01	DED	DEAV	R/T	17:01
1691:01	DEE	GGPM	R/T	02:01, 04:02
1692:01	EAE	DEAV	K/I	05:01, 19:01
1693:01	AAE	GGPM	R/T	04:01, 23:01
1694:01	DEE	GGPM	R/T	02:01, 04:02
1695:01	AAE	GEAV	K/I	01:01, 13:01, 11:01
1696:01	DEE	DEAV	K/I	10:01
1697:01	AAE	GGPM	G/T	04:01, 23:01
1698:01	DED	DEAV	K/I	06:01, 20:01, 03:01, 09:01, 14:01
1699:01	AAE	GGPM	R/T	04:01, 23:01
1700:01	AAE	GGPM	R/T	04:01, 23:01
1701:01	DEE	GGPM	R/T	02:01, 04:02
1702:01	AAE	GGPM	R/T	04:01, 23:01
1703:01	DEE	GGPM	R/T	02:01, 04:02
1704:01	AAE	GGPM	R/T	04:01, 23:01
1705:01	DEE	GGPM	R/T	04:02, 02:01
1706:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1707:01	AAE	GGPM	R/T	04:01, 23:01
1708:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1709:01	DEE	GGPM	R/T	04:02, 02:01
1710:01	DEE	GGPM	R/T	02:01, 04:02
1711:01	AAE	GGPM	R/T	04:01, 23:01
1712:01	AAE	GGPM	R/T	04:01, 23:01
1714:01	DED	DEAV	R/T	17:01
1715:01	DEE	GGPM	R/T	04:02, 02:01
1716:01	AAE	GGPM	R/T	04:01, 23:01
1717:01	AAE	GGPM	R/T	04:01, 23:01
1718:01	AAE	GGPM	R/T	04:01, 23:01
1719:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1720:01	AAE	GGPM	R/T	04:01, 23:01
1721:01	AAE	GGPM	R/T	04:01, 23:01
1722:01	EAE	DEAV	R/T	19:01, 05:01
1723:01	DEE	GGPM	R/T	02:01, 04:02

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1724:01	EAE	DEAV	K/I	05:01, 19:01
1725:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
1726:01	DEE	GGPM	R/T	02:01, 04:02
1727:01	DEE	VGPM	K/I	18:01
1729:01	AAE	GGPM	R/T	04:01, 23:01
1730:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1731:01	DEE	GGPM	R/T	04:02, 02:01
1732:01	AAE	GGPM	R/T	04:01, 23:01
1733:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1734:01	DEE	GGPM	R/T	02:01, 04:02
1735:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
1736:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1737:01	DED	DEAV	K/I	20:01, 03:01, 06:01, 14:01, 09:01
1738:01	AAE	GGPM	R/T	04:01, 23:01
1739:01	DEE	GGPM	R/T	02:01, 04:02
1740:01	AAE	DEAV	/*	01:01, 11:01, 13:01
1741:01	DEE	GGPM	R/T	02:01, 04:02
1742:01	AAE	GGPM	R/T	04:01, 23:01
1743:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1744:01	DEE	GGPM	K/I	18:01
1745:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1746:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1747:01	DEE	GGPM	R/T	02:01, 04:02
1748:01	AAE	GGPM	R/T	04:01, 23:01
1749:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1750:01	EAE	GGPM	R/T	23:01, 04:01
1751:01	EAE	DEAV	/*	05:01, 19:01
1752:01	AAE	DEAV	/*	13:01, 01:01, 11:01
1753:01	AAE	GGPM	/*	04:01, 23:01
1754:01	DEE	GGPM	R/T	04:02, 02:01
1755:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1756:01	DEE	GGPM	R/T	04:02, 02:01
1757:01	AAE	GGPM	R/T	04:01, 23:01
1758:01	EAE	DEAV	K/I	05:01, 19:01
1759:01	DEE	GGPM	R/T	02:01, 04:02
1760:01	DED	DEAV	/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
1761:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1762:01	AAE	GGPM	R/T	04:01, 23:01
1763:01	DEE	GGPM	R/T	02:01, 04:02
1764:01	AAE	GGSM	R/T	04:01, 23:01
1765:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1766:01Q	EAE	DEAV	K/I	05:01, 19:01
1767:01	AAE	GGPM	R/T	04:01, 23:01
1768:01	AAE	GGPM	R/T	04:01, 23:01
1769:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1770:01	DEE	GGPM	R/T	02:01, 04:02
1771:01	DEE	GGPM	R/T	02:01, 04:02
1772:01	EAE	DEAV	K/I	05:01, 19:01
1773:01	EAE	DEAV	K/I	05:01, 19:01
1774:01	AAE	GGPM	R/T	04:01, 23:01
1776:01	AAE	GGPM	R/T	04:01, 23:01
1777:01	AAE	DEAV	K/I	11:01, 13:01, 01:01
1778:01	AAE	GGPM	R/T	04:01, 23:01
1779:01	DEE	SGPM	R/T	04:02, 02:01, 28:01
1780:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1781:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1782:01	DEE	GGPI	R/T	04:02, 02:01
1783:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1784:01	DED	DEAV	K/I	09:01, 14:01, 03:01, 06:01, 20:01
1785:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1787:01	AAD	DEAV	K/I	13:01, 01:01, 11:01
1788:01	AAE	GGPM	R/T	04:01, 23:01
1789:01	DEE	GGPM	R/T	02:01, 04:02
1790:01	EAE	GGPM	R/T	23:01, 04:01
1791:01	DEE	GGPM	R/T	04:02, 02:01
1793:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1794:01	AAE	GGPM	R/T	04:01, 23:01
1795:01	AAE	DEAV	K/I	01:01, 13:01, 11:01
1796:01	DEE	VGPM	K/I	18:01
1797:01	AAE	GGPM	R/T	04:01, 23:01
1798:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1799:01	EAE	DEAV	K/I	05:01, 19:01
1800:01	NEE	GGPM	R/T	04:02, 02:01
1801:01	DEE	GGPM	R/T	04:02, 02:01

DPB1 alleles and core SAB surrogates

Allele	55 epitope	84 epitope	96/170 epitope	Surrogates
1802:01	DEE	DEAV	K/I	10:01
1803:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1804:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1805:01	EAE	DEAV	K/I	05:01, 19:01
1806:01	EAE	DEAV	K/I	05:01, 19:01
1809:01Q	DEE	GGPM	R/T	04:02, 02:01
1810:01	AAE	GGPM	R/T	04:01, 23:01
1811:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1812:01	DED	DEAV	*/*	03:01, 14:01, 20:01, 06:01, 09:01, 17:01
1813:01	DED	VGPM	K/I	18:01
1814:01	AAE	DEAV	K/I	13:01, 01:01, 11:01
1815:01	EAE	DEAV	R/T	05:01, 19:01
1816:01	DED	DEAV	K/I	03:01, 14:01, 20:01, 06:01, 09:01
1817:01	DED	DEAV	K/I	14:01, 03:01, 09:01, 20:01, 06:01
1818:01	EAE	DEAV	K/I	05:01, 19:01
1819:01	AAE	VGPM	R/T	04:01, 23:01
1820:01	DEE	GGPM	R/T	04:02, 02:01
1821:01	DEE	GGPM	R/T	04:02, 02:01