

Notice of OPTN Policy Change

2025 Histocompatibility HLA Table Update

Sponsoring Committee:	Histocompatibility Committee
Policy Affected:	<i>4.11: Reference Tables of HLA Antigen Values and Split Equivalences</i>
Public Comment:	August 27, 2025 – October 1, 2025
Approved:	October 14, 2025¹
Effective Date:	Pending implementation and notice to OPTN members

Purpose of Policy Change

OPTN Policy 4.10: *HLA Value Updates* requires the OPTN Histocompatibility Committee (Committee) to review the Human Leukocyte Antigen (HLA) equivalency tables listed in OPTN Policy 4.11: *Reference Tables of HLA Antigen Values and Split Equivalences* on an annual basis. Policy 4.10 also requires the Committee to recommend any necessary changes identified as a result of the review. During their annual review, the Committee identified changes needed to better ensure safety, equity, and accuracy in matching donors with transplant candidates. Prior to these changes, the OPTN Board of Directors had most recently approved table updates in November 2023, which were implemented in December 2024.

Proposal History

- The use of the expedited actions pathway for HLA value updates in OPTN Policy 4.11: *Reference Tables of HLA Antigen Values and Split Equivalences* was approved by the OPTN Board of Directors in August 2020, provided the proposed changes meet the criteria within OPTN *Management and Membership Policy E.8: Expedited Actions*
- The Committee performed its annual review and identified potential changes that were available for public comment consideration from August 17 -October 1, 2025
- The proposal received overall support for all components during public comment
- The Committee voted for final adoption of the policy changes in October 2025 pursuant to OPTN *Management and Membership Policy E.8: Expedited Actions*, effective pending implementation and notice to OPTN members

Summary of Changes

Following the required annual review of the HLA equivalency tables, the Committee proposed the following changes which were adopted using the expedited actions pathway:

1. Add necessary p-values to Table 4-16: *Epitope based Unacceptable Antigen Assignment for DPB1* based on the International Immunogenetics (IMGT) information system release at time of

¹ The Committee voted for final adoption of the policy changes on October 14, 2025 pursuant to OPTN *Management and Membership Policy E.8: Expedited Actions*

creation of the *Update HLA Equivalency Tables, 2023*. This change takes the p-groups that were added to policy in the *Update HLA Equivalency Tables, 2023* and assigns them to their DP epitope equivalences.

2. Add C*04:09L to Table 4-7: *HLA C Unacceptable Antigen Equivalences*, which aligns with the IMGT information system change of the allele from null to low expression. This will make a change to donor typing, aligning this value with the newest IMGT updates.

The Committee is using the expedited actions pathway for these updates, outlined in *OPTN Policy 4.10: HLA Value Updates*. Pursuant to *OPTN Management and Membership Policy E.8: Expedited Actions*, because there were no objections to the use of the expedited actions pathway or the policy changes themselves raised during public comment, the Committee was able to recommend final adoption of these changes, and adoption and implementation of these changes did not require further action from the OPTN Board of Directors.

Implementation

These policy changes will require technical implementation within the OPTN Computer System. Members will receive a system notice prior to implementation.

Histocompatibility laboratories may need to update their Laboratory Information Systems (LISs) based on the changes within this proposal. Laboratory software vendors will also need to update their Application Programming Interfaces (APIs) based on these changes.

Organ Procurement Organizations (OPOs) and transplant hospitals may need to evaluate their agreements with histocompatibility laboratories to accommodate any needed transactional changes related to the proposal changes.

Affected Policy Language

New language is underlined (example) and language that is deleted is struck through (~~example~~).

4.11 Reference Tables of HLA Antigen Values and Split Equivalences

4.11.A: HLA Matching Equivalences

Tables 4-2, 4-3, and 4-4 show candidate-donor antigen equivalencies. All of the candidate and donor antigens that are considered equivalent to each other for the purposes of HLA matching are listed within each row. All other combinations are considered mismatches for the purposes of HLA matching.

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Table 4-7: HLA C Unacceptable Antigen Equivalences

If this C-Locus Antigen is reported:	The following HLA values are considered equivalent to the reported unacceptable antigen:
01	01, 01:02P, 01:02, 01:03P, 01:03, 01:63P
01:02	01:02
01:03	01:03
02	02, 02:02P, 02:02, 02:10, 02:14P, 02:16P, 02:134P, 02:159P, 02:182P

If this C-Locus Antigen is reported:	The following HLA values are considered equivalent to the reported unacceptable antigen:
02:02	02:02
02:10	02:10
03	03, 03:02P, 03:02, 03:03P, 03:03, 03:04P, 03:04, 03:05P, 03:05, 03:06, 03:14P, 03:40P, 09, 10
03:02	03:02
03:03	03:03
03:04	03:04
03:05	03:05
03:06	03:06
04	04, 04:01P, 04:01, 04:03P, 04:03, 04:04, 04:06P, 04:07, <u>04:09L</u> , 04:10P, 04:59P, 04:355P, 04:360P
04:01	04:01
04:03	04:03
04:04	04:04
04:07	04:07
05	05, 05:01P, 05:01
05:01	05:01
06	06, 06:02P, 06:02, 06:06P, 06:87P
06:02	06:02
07	07, 07:01P, 07:01, 07:02P, 07:02, 07:04P, 07:04, 07:06, 07:18, 07:19P, 07:22P, 07:26P, 07:27P, 07:28P, 07:165P, 07:450P, 07:919P
07:01	07:01
07:02	07:02
07:04	07:04
07:06	07:06
07:18	07:18
08	08, 08:01P, 08:01, 08:02P, 08:02, 08:03P, 08:03, 08:04
08:01	08:01
08:02	08:02
08:03	08:03
08:04	08:04
09	09, 03:03P, 03:03
10	10, 03:02P, 03:02, 03:04P, 03:04, 03:06
12	12, 12:02P, 12:02, 12:03P, 12:03, 12:04, 12:14P
12:02	12:02
12:03	12:03
12:04	12:04
14	14, 14:02P, 14:02, 14:03P, 14:03
14:02	14:02
14:03	14:03
15	15, 15:02P, 15:02, 15:04P, 15:04, 15:05P, 15:05, 15:06, 15:09, 15:103P
15:02	15:02

If this C-Locus Antigen is reported:	The following HLA values are considered equivalent to the reported unacceptable antigen:
15:04	15:04
15:05	15:05
15:06	15:06
15:09	15:09
16	16, 16:01P, 16:01, 16:02P, 16:02, 16:04, 16:15P
16:01	16:01
16:02	16:02
16:04	16:04
17	17, 17:01P, 17:01, 17:03
17:01	17:01
17:03	17:03
18	18, 18:01P, 18:01, 18:02
18:01	18:01
18:02	18:02

Table 4-16: Epitope based Unacceptable Antigen Assignment for DPB1

If this Candidate Unacceptable Epitope is reported:	The following HLA values are considered equivalent to the reported unacceptable epitope:								
55AAE	01:01	04:01	11:01	13:01	15:01	23:01	26:01	27:01	31:01
	33:01	34:01	39:01	40:01	52:01	55:01	56:01	58:01	62:01
	63:01	65:01	66:01	67:01	71:01	72:01	74:01	85:01	87:01
	89:01	90:01	95:01	96:01	99:01	102:01	103:01	107:01	110:01
	112:01	117:01	118:01	121:01	125:01	126:01	127:01	128:01	133:01
	134:01	138:01	142:01	147:01	149:01	150:01	158:01	160:01	162:01
	169:01	173:01	174:01	175:01	176:01	177:01	178:01	179:01	180:01
	181:01	192:01	193:01	194:01	195:01	199:01	201:01	202:01	206:01
	207:01	209:01	212:01	213:01	220:01	224:01	225:01	227:01	228:01
	230:01	231:01	232:01	240:01	244:01	246:01	247:01	250:01	253:01
	255:01	262:01	264:01	267:01	268:01	272:01	275:01	276:01	278:01
	279:01	280:01	281:01	282:01	283:01	290:01	294:01	295:01	298:01
	299:01	303:01	304:01	305:01	306:01	314:01	318:01	319:01	320:01
	322:01	323:01	325:01	326:01	327:01	333:01	334:01	335:01	336:01
	340:01	341:01	345:01	346:01	348:01	350:01	353:01	354:01	356:01
	360:01	362:01	370:01	371:01	372:01	375:01	376:01	377:01	378:01
	387:01	388:01	389:01	392:01	393:01	396:01	397:01	398:01	399:01
	411:01	412:01	415:01	417:01	418:01	425:01	426:01	428:01	434:01
	435:01	436:01	437:01	438:01	440:01	449:01	451:01	453:01	454:01
	456:01	458:01	459:01	462:01	464:01	465:01	468:01	471:01	474:01
	475:01	476:01	479:01	480:01	481:01	482:01	483:01	485:01	486:01
	487:01	490:01	493:01	497:01	500:01	503:01	512:01	516:01	517:01
	518:01	519:01	520:01	521:01	522:01	523:01	524:01	529:01	531:01

If this Candidate Unacceptable Epitope is reported:	The following HLA values are considered equivalent to the reported unacceptable epitope:								
55AAE	534:01	538:01	542:01	543:01	544:01	553:01	554:01	556:01	559:01
	561:01	562:01	563:01	564:01	565:01	569:01	575:01	576:01	578:01
	580:01	583:01	584:01	585:01	591:01	592:01	593:01	597:01	599:01
	600:01	607:01	609:01	612:01	614:01	615:01	616:01	618:01	623:01
	625:01	626:01	631:01	632:01	634:01	635:01	636:01	643:01	644:01
	649:01	654:01	658:01	666:01	667:01	670:01	672:01	677:01	679:01
	682:01	683:01	686:01	687:01	694:01	695:01	699:01	702:01	703:01
	707:01	708:01	709:01	713:01	716:01	722:01	733:01	739:01	742:01
	745:01	747:01	749:01	750:01	753:01	755:01	757:01	758:01	761:01
	765:01	767:01	768:01	769:01	772:01	773:01	784:01	787:01	788:01
	789:01	795:01	803:01	804:01	806:01	807:01	808:01	810:01	811:01
	812:01	813:01	814:01	820:01	822:01	824:01	826:01	828:01	830:01
	835:01	837:01	840:01	842:01	849:01	850:01	852:01	853:01	856:01
	859:01	879:01	880:01	882:01	888:01	893:01	895:01	896:01	901:01
	904:01	907:01	908:01	910:01	912:01	913:01	915:01	916:01	921:01
	922:01	924:01	926:01	930:01	931:01	932:01	934:01	937:01	945:01
	947:01	953:01	957:01	966:01	969:01	972:01	976:01	978:01	979:01
	988:01	989:01	991:01	992:01	993:01	996:01	997:01	998:01	999:01
	1001:01	1002:01	1003:01	1004:01	1010:01	1011:01	1012:01	1016:01	1023:01
	1024:01	1033:01	1034:01	1038:01	1040:01	1042:01	1046:01	1048:01	1050:01
	1054:01	1057:01	1060:01	1062:01	1063:01	1064:01	1065:01	1066:01	1068:01
	1069:01	1073:01	1074:01	1076:01	1078:01	1080:01	1081:01	1086:01	1088:01
	1091:01	1097:01	1100:01	1105:01	1108:01	1109:01	1113:01	1122:01	1123:01
	1129:01	1131:01	1132:01	1137:01	1138:01	1139:01	1141:01	1144:01	1145:01

If this Candidate Unacceptable Epitope is reported:	The following HLA values are considered equivalent to the reported unacceptable epitope:								
55AAE	1146:01	1147:01	1148:01	1151:01	1152:01	1155:01	1161:01	1162:01	1164:01
	1166:01	1167:01	1170:01	1173:01	1177:01	1181:01	1183:01	1184:01	1185:01
	1192:01	1195:01	1196:01	1204:01	1205:01	1206:01	1207:01	1208:01	1212:01
	1214:01	1215:01	1216:01	1217:01	1218:01	1220:01	1221:01	1222:01	1225:01
	1226:01	1231:01	1232:01	1234:01	1237:01	1238:01	1241:01	1242:01	1244:01
	1249:01	1250:01	1252:01	1262:01	1264:01	1268:01	1271:01	1274:01	1277:01
	1284:01	1287:01	1292:01	1294:01	1297:01	1300:01	1301:01	1304:01	1306:01
	1308:01	1309:01	1310:01	1314:01	1316:01	1317:01	1321:01	1322:01	1327:01
	1328:01	1329:01	1333:01	1336:01	1337:01	1341:01	1342:01	1343:01	1345:01
	1353:01	1356:01	1358:01	1361:01	1362:01	1370:01	1374:01	1377:01	1379:01
	1385:01	1387:01	1390:01	1391:01	1392:01	1399:01	1406:01	1409:01	1412:01
	1413:01	1420:01	1421:01	1427:01	1433:01	1434:01	1436:01	1441:01	1443:01
	1444:01	1446:01	1447:01	1450:01	1451:01	1453:01	1454:01	1459:01	1464:01
	1465:01	1472:01	1476:01	<u>01:01P</u>	<u>04:01P</u>	<u>11:01P</u>	<u>13:01P</u>	<u>15:01P</u>	<u>23:01P</u>
	<u>26:01P</u>	<u>31:01P</u>	<u>34:01P</u>	<u>39:01P</u>	<u>40:01P</u>	<u>55:01P</u>	<u>85:01P</u>	<u>90:01P</u>	<u>398:01P</u>
55DED	03:01	06:01	09:01	14:01	17:01	20:01	29:01	35:01	44:01
	46:01	50:01	57:01	69:01	70:01	76:01	78:01	80:01	86:01
	88:01	91:01	92:01	98:01	104:01	108:01	111:01	119:01	124:01
	130:01	131:01	132:01	152:01	156:01	157:01	164:01	166:01	168:01
	182:01	197:01	203:01	205:01	208:01	214:01	221:01	222:01	234:01
	235:01	241:01	242:01	243:01	245:01	248:01	249:01	251:01	259:01
	266:01	270:01	287:01	288:01	289:01	292:01	293:01	329:01	332:01
	343:01	351:01	355:01	361:01	363:01	379:01	383:01	384:01	385:01
	386:01	391:01	394:01	404:01	405:01	407:01	409:01	413:01	439:01

If this Candidate Unacceptable Epitope is reported:	The following HLA values are considered equivalent to the reported unacceptable epitope:								
55DED	442:01	445:01	446:01	447:01	460:01	472:01	484:01	491:01	492:01
	498:01	504:01	505:01	506:01	508:01	509:01	530:01	536:01	540:01
	541:01	545:01	546:01	548:01	555:01	566:01	567:01	568:01	572:01
	581:01	601:01	610:01	613:01	620:01	621:01	629:01	630:01	645:01
	648:01	651:01	662:01	664:01	669:01	671:01	675:01	676:01	684:01
	688:01	689:01	698:01	704:01	705:01	706:01	714:01	719:01	727:01
	728:01	737:01	760:01	762:01	797:01	801:01	815:01	829:01	833:01
	834:01	839:01	846:01	854:01	855:01	883:01	899:01	905:01	906:01
	909:01	914:01	920:01	935:01	938:01	944:01	946:01	948:01	949:01
	952:01	956:01	970:01	977:01	983:01	987:01	990:01	994:01	1000:01
	1009:01	1014:01	1017:01	1021:01	1022:01	1027:01	1030:01	1032:01	1043:01
	1047:01	1049:01	1052:01	1067:01	1071:01	1087:01	1090:01	1093:01	1103:01
	1104:01	1111:01	1114:01	1116:01	1125:01	1127:01	1128:01	1130:01	1134:01
	1149:01	1157:01	1158:01	1174:01	1178:01	1182:01	1187:01	1203:01	1211:01
	1233:01	1245:01	1246:01	1251:01	1254:01	1258:01	1259:01	1263:01	1265:01
	1278:01	1295:01	1303:01	1311:01	1313:01	1330:01	1339:01	1340:01	1348:01
	1354:01	1355:01	1359:01	1365:01	1366:01	1367:01	1373:01	1378:01	1382:01
	1384:01	1388:01	1389:01	1394:01	1395:01	1396:01	1397:01	1401:01	1407:01
	1411:01	1414:01	1418:01	1422:01	1426:01	1429:01	1431:01	1432:01	1435:01
	1448:01	1452:01	1458:01	1466:01	1467:01	1471:01	1474:01	1475:01	1480:01
	<u>03:01P</u>	<u>06:01P</u>	<u>09:01P</u>	<u>14:01P</u>	<u>17:01P</u>	<u>20:01P</u>	<u>29:01P</u>	<u>57:01P</u>	<u>80:01P</u>
	<u>130:01P</u>	<u>132:01P</u>	<u>152:01P</u>						
55DEE	02:01	04:02	08:01	10:01	16:01	18:01	25:01	28:01	37:01
	41:01	45:01	48:01	49:01	51:01	53:01	59:01	60:01	68:01

If this Candidate Unacceptable Epitope is reported:	The following HLA values are considered equivalent to the reported unacceptable epitope:								
55DEE	73:01	75:01	77:01	79:01	81:01	82:01	83:01	93:01	94:01
	105:01	109:01	113:01	115:01	116:01	122:01	123:01	129:01	136:01
	137:01	141:01	143:01	144:01	145:01	146:01	151:01	153:01	155:01
	163:01	165:01	167:01	172:01	183:01	184:01	185:01	186:01	187:01
	188:01	189:01	191:01	196:01	198:01	200:01	204:01	210:01	211:01
	217:01	219:01	229:01	236:01	237:01	238:01	239:01	252:01	256:01
	257:01	258:01	260:01	261:01	263:01	265:01	269:01	271:01	273:01
	274:01	277:01	285:01	286:01	296:01	297:01	307:01	308:01	309:01
	310:01	311:01	312:01	313:01	316:01	321:01	324:01	338:01	339:01
	342:01	344:01	347:01	349:01	352:01	359:01	364:01	365:01	366:01
	367:01	368:01	369:01	373:01	374:01	380:01	381:01	402:01	410:01
	414:01	416:01	419:01	420:01	421:01	422:01	423:01	424:01	429:01
	430:01	431:01	432:01	433:01	441:01	443:01	444:01	448:01	452:01
	457:01	461:01	463:01	466:01	467:01	469:01	470:01	477:01	488:01
	489:01	494:01	499:01	501:01	502:01	510:01	511:01	513:01	514:01
	515:01	525:01	526:01	528:01	532:01	537:01	539:01	549:01	552:01
	557:01	571:01	574:01	577:01	579:01	582:01	586:01	594:01	595:01
	596:01	602:01	603:01	604:01	606:01	608:01	617:01	622:01	624:01
	627:01	628:01	633:01	637:01	639:01	640:01	641:01	646:01	647:01
	650:01	652:01	653:01	655:01	656:01	659:01	660:01	663:01	665:01
	673:01	674:01	678:01	680:01	681:01	685:01	690:01	692:01	701:01

If this Candidate Unacceptable Epitope is reported:	The following HLA values are considered equivalent to the reported unacceptable epitope:								
55DEE	711:01	723:01	725:01	726:01	730:01	731:01	734:01	735:01	736:01
	740:01	741:01	751:01	752:01	759:01	763:01	770:01	771:01	774:01
	775:01	776:01	780:01	781:01	782:01	783:01	791:01	799:01	805:01
	809:01	816:01	817:01	818:01	819:01	823:01	827:01	832:01	836:01
	841:01	843:01	845:01	857:01	858:01	861:01	863:01	864:01	881:01
	884:01	885:01	886:01	887:01	889:01	890:01	891:01	892:01	897:01
	898:01	900:01	902:01	903:01	918:01	927:01	933:01	936:01	940:01
	942:01	943:01	954:01	955:01	958:01	963:01	964:01	967:01	968:01
	973:01	975:01	981:01	1005:01	1006:01	1007:01	1013:01	1020:01	1025:01
	1028:01	1031:01	1035:01	1036:01	1037:01	1039:01	1051:01	1053:01	1055:01
	1056:01	1059:01	1072:01	1075:01	1077:01	1082:01	1083:01	1085:01	1089:01
	1092:01	1094:01	1102:01	1106:01	1107:01	1110:01	1115:01	1124:01	1126:01
	1136:01	1140:01	1142:01	1150:01	1153:01	1159:01	1160:01	1163:01	1165:01
	1168:01	1171:01	1175:01	1176:01	1179:01	1194:01	1197:01	1198:01	1200:01
	1201:01	1210:01	1219:01	1224:01	1227:01	1230:01	1235:01	1236:01	1239:01
	1243:01	1247:01	1248:01	1253:01	1261:01	1266:01	1267:01	1270:01	1276:01
	1280:01	1281:01	1283:01	1286:01	1290:01	1296:01	1298:01	1307:01	1312:01
	1315:01	1319:01	1320:01	1323:01	1324:01	1326:01	1331:01	1335:01	1344:01
	1346:01	1347:01	1352:01	1360:01	1363:01	1368:01	1369:01	1371:01	1372:01
	1380:01	1381:01	1383:01	1386:01	1393:01	1402:01	1404:01	1405:01	1408:01
	1410:01	1417:01	1419:01	1424:01	1425:01	1445:01	1456:01	1460:01	1461:01

If this Candidate Unacceptable Epitope is reported:	The following HLA values are considered equivalent to the reported unacceptable epitope:								
55DEE	1468:01	1469:01	1470:01	1479:01	<u>02:01P</u>	<u>04:02P</u>	<u>10:01P</u>	<u>16:01P</u>	<u>18:01P</u>
	<u>25:01P</u>	<u>28:01P</u>	<u>45:01P</u>	<u>51:01P</u>	<u>59:01P</u>	<u>81:01P</u>	<u>137:01P</u>	<u>184:01P</u>	<u>1371:01P</u>
55EAE	02:02	05:01	19:01	21:01	22:01	24:01	30:01	36:01	38:01
	47:01	54:01	97:01	100:01	226:01	106:01	114:01	135:01	139:01
	140:01	170:01	171:01	223:01	331:01	233:01	284:01	291:01	300:01
	301:01	302:01	317:01	330:01	478:01	337:01	358:01	390:01	395:01
	400:01	406:01	408:01	473:01	560:01	495:01	496:01	527:01	533:01
	535:01	547:01	550:01	558:01	668:01	573:01	587:01	588:01	589:01
	590:01	611:01	619:01	638:01	746:01	697:01	715:01	717:01	718:01
	720:01	721:01	729:01	744:01	847:01	764:01	766:01	778:01	779:01
	785:01	790:01	798:01	802:01	962:01	848:01	851:01	860:01	923:01
	928:01	929:01	951:01	961:01	1026:01	965:01	971:01	980:01	982:01
	1008:01	1015:01	1018:01	1019:01	1143:01	1061:01	1095:01	1099:01	1101:01
	1117:01	1118:01	1119:01	1120:01	1209:01	1156:01	1172:01	1180:01	1186:01
	1188:01	1189:01	1190:01	1199:01	1289:01	1213:01	1229:01	1240:01	1255:01
	1257:01	1272:01	1273:01	1282:01	1437:01	1293:01	1302:01	1318:01	1349:01
	1376:01	1400:01	1403:01	1428:01	1437:01	1438:01	1457:01	1462:01	1473:01
	1477:01	1481:01	1483:01	<u>2:02P</u>	<u>05:01P</u>	<u>19:01P</u>	<u>21:01P</u>	<u>22:01P</u>	<u>38:01P</u>
	<u>100:01P</u>	<u>233:01P</u>							
84DEAV	01:01	03:01	05:01	06:01	08:01	09:01	10:01	11:01	13:01
	14:01	16:01	17:01	19:01	20:01	21:01	22:01	25:01	26:01
	27:01	29:01	30:01	31:01	35:01	36:01	37:01	38:01	44:01
	45:01	50:01	52:01	54:01	55:01	56:01	57:01	58:01	63:01
	65:01	67:01	68:01	69:01	70:01	76:01	78:01	79:01	84:01

If this Candidate Unacceptable Epitope is reported:	The following HLA values are considered equivalent to the reported unacceptable epitope:								
84DEAV	85:01	87:01	88:01	89:01	90:01	91:01	92:01	93:01	97:01
	98:01	102:01	103:01	104:01	106:01	107:01	110:01	111:01	114:01
	118:01	122:01	124:01	125:01	127:01	130:01	131:01	132:01	133:01
	135:01	136:01	137:01	140:01	142:01	147:01	150:01	152:01	156:01
	157:01	162:01	165:01	166:01	167:01	168:01	170:01	171:01	173:01
	182:01	184:01	197:01	201:01	202:01	203:01	204:01	205:01	206:01
	207:01	208:01	209:01	220:01	221:01	222:01	223:01	226:01	234:01
	241:01	243:01	244:01	245:01	246:01	247:01	248:01	249:01	250:01
	251:01	259:01	264:01	265:01	266:01	267:01	268:01	269:01	270:01
	277:01	284:01	285:01	287:01	288:01	289:01	291:01	293:01	295:01
	300:01	301:01	304:01	305:01	312:01	313:01	314:01	315:01	316:01
	317:01	324:01	325:01	326:01	327:01	329:01	331:01	337:01	340:01
	343:01	346:01	348:01	349:01	351:01	353:01	358:01	361:01	362:01
	363:01	370:01	371:01	379:01	383:01	384:01	385:01	386:01	388:01
	389:01	390:01	391:01	393:01	394:01	395:01	398:01	400:01	404:01
	405:01	407:01	408:01	409:01	410:01	411:01	412:01	413:01	417:01
	422:01	437:01	438:01	439:01	442:01	445:01	446:01	447:01	448:01
	449:01	458:01	460:01	462:01	466:01	470:01	472:01	473:01	481:01
	483:01	490:01	491:01	492:01	495:01	498:01	503:01	504:01	505:01
	506:01	509:01	514:01	515:01	516:01	517:01	518:01	519:01	527:01
	530:01	532:01	533:01	535:01	536:01	538:01	541:01	542:01	543:01

If this Candidate Unacceptable Epitope is reported:	The following HLA values are considered equivalent to the reported unacceptable epitope:								
84DEAV	545:01	548:01	550:01	552:01	558:01	560:01	562:01	563:01	564:01
	565:01	566:01	567:01	568:01	572:01	573:01	587:01	588:01	597:01
	599:01	600:01	608:01	609:01	610:01	611:01	612:01	613:01	616:01
	619:01	621:01	623:01	629:01	630:01	631:01	632:01	633:01	634:01
	635:01	636:01	638:01	645:01	648:01	649:01	650:01	651:01	652:01
	653:01	654:01	662:01	664:01	667:01	668:01	669:01	671:01	672:01
	673:01	675:01	676:01	684:01	688:01	689:01	698:01	703:01	704:01
	705:01	706:01	707:01	708:01	709:01	710:01	711:01	713:01	714:01
	715:01	716:01	717:01	718:01	720:01	727:01	728:01	729:01	733:01
	737:01	744:01	746:01	749:01	760:01	764:01	778:01	785:01	789:01
	790:01	791:01	797:01	798:01	801:01	802:01	807:01	810:01	815:01
	822:01	825:01	829:01	832:01	833:01	834:01	839:01	846:01	847:01
	848:01	851:01	853:01	854:01	855:01	856:01	860:01	864:01	879:01
	883:01	886:01	888:01	891:01	892:01	893:01	898:01	899:01	901:01
	902:01	904:01	905:01	906:01	907:01	908:01	909:01	912:01	914:01
	920:01	922:01	923:01	924:01	929:01	930:01	931:01	935:01	937:01
	938:01	940:01	944:01	945:01	946:01	947:01	948:01	949:01	951:01
	952:01	953:01	956:01	965:01	968:01	969:01	970:01	971:01	976:01
	977:01	979:01	980:01	982:01	983:01	990:01	991:01	994:01	996:01
	998:01	999:01	1000:01	1006:01	1007:01	1008:01	1009:01	1012:01	1014:01
	1015:01	1017:01	1018:01	1019:01	1021:01	1022:01	1024:01	1026:01	1027:01

If this Candidate Unacceptable Epitope is reported:	The following HLA values are considered equivalent to the reported unacceptable epitope:								
84DEAV	1030:01	1032:01	1034:01	1038:01	1043:01	1047:01	1049:01	1050:01	1052:01
	1057:01	1058:01	1061:01	1063:01	1065:01	1067:01	1068:01	1069:01	1071:01
	1073:01	1076:01	1087:01	1088:01	1090:01	1093:01	1095:01	1096:01	1099:01
	1101:01	1103:01	1105:01	1111:01	1114:01	1116:01	1117:01	1118:01	1119:01
	1120:01	1123:01	1125:01	1126:01	1127:01	1128:01	1130:01	1131:01	1133:01
	1134:01	1137:01	1140:01	1141:01	1143:01	1145:01	1147:01	1149:01	1150:01
	1151:01	1156:01	1157:01	1158:01	1162:01	1166:01	1168:01	1170:01	1172:01
	1178:01	1180:01	1182:01	1183:01	1185:01	1186:01	1187:01	1189:01	1190:01
	1199:01	1203:01	1204:01	1205:01	1211:01	1213:01	1224:01	1229:01	1232:01
	1233:01	1234:01	1240:01	1245:01	1246:01	1251:01	1254:01	1255:01	1257:01
	1258:01	1259:01	1261:01	1263:01	1264:01	1265:01	1272:01	1273:01	1278:01
	1281:01	1282:01	1287:01	1289:01	1293:01	1294:01	1295:01	1302:01	1303:01
	1305:01	1306:01	1310:01	1311:01	1313:01	1314:01	1318:01	1329:01	1330:01
	1333:01	1339:01	1340:01	1341:01	1342:01	1348:01	1349:01	1353:01	1354:01
	1355:01	1359:01	1361:01	1365:01	1366:01	1367:01	1370:01	1378:01	1382:01
	1384:01	1386:01	1388:01	1389:01	1392:01	1394:01	1395:01	1396:01	1397:01
	1400:01	1401:01	1406:01	1407:01	1411:01	1414:01	1418:01	1421:01	1426:01
	1429:01	1431:01	1432:01	1435:01	1438:01	1441:01	1443:01	1448:01	1451:01
	1452:01	1457:01	1458:01	1462:01	1464:01	1466:01	1467:01	1469:01	1470:01
	1471:01	1473:01	1475:01	1477:01	1480:01	1481:01	<u>01:01P</u>	<u>03:01P</u>	<u>05:01P</u>
	<u>06:01P</u>	<u>09:01P</u>	<u>10:01P</u>	<u>11:01P</u>	<u>13:01P</u>	<u>14:01P</u>	<u>16:01P</u>	<u>17:01P</u>	<u>19:01P</u>

If this Candidate Unacceptable Epitope is reported:	The following HLA values are considered equivalent to the reported unacceptable epitope:								
84DEAV	<u>20:01P</u>	<u>21:01P</u>	<u>22:01P</u>	<u>25:01P</u>	<u>26:01P</u>	<u>29:01P</u>	<u>31:01P</u>	<u>38:01P</u>	<u>45:01P</u>
	<u>55:01P</u>	<u>57:01P</u>	<u>85:01P</u>	<u>90:01P</u>	<u>130:01P</u>	<u>132:01P</u>	<u>137:01P</u>	<u>152:01P</u>	<u>184:01P</u>
	<u>398:01P</u>	<u>1096:01P</u>							
84GGPM	02:01	02:02	04:01	04:02	23:01	24:01	32:01	33:01	39:01
	41:01	46:01	47:01	48:01	49:01	51:01	59:01	60:01	66:01
	71:01	72:01	73:01	75:01	77:01	80:01	81:01	82:01	83:01
	86:01	94:01	95:01	96:01	99:01	100:01	101:01	105:01	108:01
	109:01	112:01	113:01	115:01	116:01	117:01	121:01	123:01	126:01
	128:01	129:01	134:01	138:01	141:01	143:01	144:01	145:01	146:01
	148:01	149:01	151:01	153:01	155:01	158:01	163:01	164:01	169:01
	172:01	174:01	175:01	176:01	179:01	180:01	181:01	183:01	185:01
	186:01	187:01	188:01	189:01	190:01	191:01	192:01	193:01	194:01
	195:01	196:01	199:01	200:01	210:01	211:01	212:01	213:01	214:01
	215:01	217:01	219:01	224:01	225:01	227:01	228:01	229:01	231:01
	232:01	233:01	235:01	236:01	237:01	238:01	239:01	240:01	252:01
	253:01	254:01	255:01	256:01	257:01	258:01	260:01	261:01	262:01
	263:01	271:01	272:01	273:01	274:01	275:01	276:01	278:01	281:01
	282:01	283:01	286:01	294:01	297:01	298:01	302:01	303:01	306:01
	307:01	308:01	309:01	310:01	311:01	318:01	319:01	320:01	321:01
	322:01	323:01	332:01	334:01	335:01	336:01	338:01	339:01	341:01
	342:01	344:01	350:01	352:01	354:01	355:01	356:01	359:01	360:01
	375:01	376:01	377:01	378:01	380:01	381:01	392:01	396:01	397:01
	399:01	402:01	406:01	414:01	415:01	416:01	418:01	419:01	420:01
	421:01	423:01	424:01	425:01	426:01	427:01	428:01	429:01	430:01

If this Candidate Unacceptable Epitope is reported:	The following HLA values are considered equivalent to the reported unacceptable epitope:								
84GGPM	432:01	433:01	434:01	435:01	440:01	441:01	443:01	444:01	451:01
	452:01	453:01	456:01	457:01	459:01	461:01	463:01	464:01	465:01
	468:01	469:01	474:01	475:01	476:01	477:01	478:01	479:01	480:01
	485:01	486:01	487:01	488:01	494:01	496:01	497:01	500:01	501:01
	502:01	508:01	510:01	511:01	520:01	521:01	522:01	523:01	524:01
	525:01	528:01	529:01	531:01	534:01	537:01	539:01	540:01	547:01
	549:01	553:01	554:01	555:01	556:01	557:01	559:01	561:01	569:01
	571:01	574:01	575:01	576:01	577:01	578:01	579:01	581:01	582:01
	583:01	584:01	586:01	591:01	593:01	594:01	595:01	596:01	601:01
	602:01	603:01	604:01	605:01	606:01	607:01	614:01	615:01	617:01
	618:01	620:01	622:01	624:01	625:01	626:01	627:01	628:01	637:01
	639:01	640:01	641:01	642:01	643:01	646:01	647:01	655:01	656:01
	658:01	659:01	660:01	663:01	665:01	666:01	670:01	674:01	677:01
	678:01	679:01	680:01	681:01	682:01	683:01	685:01	686:01	687:01
	690:01	692:01	694:01	699:01	701:01	702:01	721:01	722:01	723:01
	725:01	726:01	730:01	731:01	734:01	735:01	736:01	739:01	741:01
	742:01	747:01	750:01	751:01	753:01	755:01	757:01	758:01	759:01
	761:01	762:01	763:01	765:01	766:01	767:01	769:01	770:01	771:01
	772:01	773:01	774:01	775:01	776:01	779:01	780:01	781:01	782:01
	783:01	784:01	787:01	788:01	795:01	796:01	799:01	803:01	804:01
	805:01	806:01	808:01	809:01	811:01	812:01	813:01	814:01	816:01
	817:01	818:01	819:01	820:01	823:01	824:01	826:01	827:01	828:01
	830:01	836:01	837:01	840:01	841:01	842:01	843:01	845:01	849:01
	850:01	852:01	857:01	858:01	859:01	861:01	863:01	880:01	881:01

If this Candidate Unacceptable Epitope is reported:	The following HLA values are considered equivalent to the reported unacceptable epitope:								
84GGPM	882:01	884:01	885:01	887:01	889:01	890:01	895:01	915:01	916:01
	921:01	926:01	927:01	928:01	932:01	933:01	934:01	936:01	943:01
	954:01	955:01	957:01	958:01	961:01	962:01	963:01	964:01	966:01
	967:01	972:01	973:01	975:01	978:01	981:01	987:01	988:01	989:01
	992:01	993:01	997:01	1001:01	1002:01	1003:01	1004:01	1005:01	1010:01
	1011:01	1013:01	1016:01	1020:01	1023:01	1025:01	1028:01	1031:01	1033:01
	1035:01	1036:01	1037:01	1039:01	1040:01	1042:01	1046:01	1048:01	1051:01
	1053:01	1055:01	1056:01	1059:01	1060:01	1062:01	1064:01	1066:01	1072:01
	1074:01	1075:01	1077:01	1080:01	1081:01	1082:01	1083:01	1085:01	1086:01
	1089:01	1091:01	1094:01	1097:01	1100:01	1102:01	1104:01	1106:01	1108:01
	1110:01	1113:01	1115:01	1122:01	1124:01	1129:01	1132:01	1138:01	1139:01
	1144:01	1146:01	1148:01	1152:01	1153:01	1155:01	1159:01	1160:01	1161:01
	1163:01	1164:01	1167:01	1171:01	1173:01	1174:01	1175:01	1176:01	1177:01
	1179:01	1181:01	1184:01	1188:01	1194:01	1195:01	1196:01	1197:01	1198:01
	1200:01	1206:01	1207:01	1208:01	1209:01	1210:01	1212:01	1214:01	1215:01
	1216:01	1217:01	1218:01	1220:01	1221:01	1222:01	1223:01	1225:01	1226:01
	1227:01	1230:01	1231:01	1235:01	1237:01	1238:01	1239:01	1241:01	1242:01
	1243:01	1244:01	1247:01	1248:01	1249:01	1253:01	1262:01	1266:01	1267:01
	1268:01	1270:01	1271:01	1274:01	1276:01	1280:01	1283:01	1284:01	1290:01
	1292:01	1297:01	1298:01	1300:01	1301:01	1304:01	1307:01	1308:01	1309:01
	1312:01	1315:01	1316:01	1317:01	1320:01	1321:01	1322:01	1323:01	1326:01
	1327:01	1328:01	1331:01	1335:01	1337:01	1343:01	1344:01	1345:01	1346:01
	1347:01	1352:01	1356:01	1358:01	1360:01	1362:01	1363:01	1368:01	1369:01
	1371:01	1372:01	1374:01	1376:01	1377:01	1379:01	1380:01	1381:01	1383:01

If this Candidate Unacceptable Epitope is reported:	The following HLA values are considered equivalent to the reported unacceptable epitope:								
84GGPM	1385:01	1387:01	1390:01	1391:01	1393:01	1399:01	1402:01	1403:01	1404:01
	1405:01	1408:01	1409:01	1410:01	1412:01	1413:01	1417:01	1419:01	1420:01
	1424:01	1425:01	1428:01	1433:01	1436:01	1437:01	1444:01	1445:01	1446:01
	1447:01	1450:01	1453:01	1454:01	1456:01	1459:01	1460:01	1461:01	1465:01
	1468:01	1472:01	1474:01	1476:01	1479:01	1483:01	<u>02:01P</u>	<u>02:02P</u>	<u>04:01P</u>
	<u>04:02P</u>	<u>23:01P</u>	<u>39:01P</u>	<u>51:01P</u>	<u>59:01P</u>	<u>80:01P</u>	<u>81:01P</u>	<u>100:01P</u>	<u>233:01P</u>
	<u>1371:01P</u>								
84VGPM	15:01	18:01	28:01	34:01	40:01	53:01	62:01	74:01	139:01
	198:01	290:01	292:01	296:01	299:01	333:01	345:01	347:01	387:01
	471:01	482:01	484:01	493:01	499:01	512:01	526:01	580:01	585:01
	644:01	695:01	745:01	752:01	768:01	835:01	896:01	897:01	900:01
	903:01	910:01	913:01	918:01	942:01	1054:01	1109:01	1136:01	1142:01
	1165:01	1192:01	1201:01	1219:01	1250:01	1252:01	1286:01	1324:01	1336:01
	1422:01	1427:01	1434:01	<u>15:01P</u>	<u>18:01P</u>	<u>28:01P</u>	<u>34:01P</u>	<u>40:01P</u>	

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