

Lot No.: **43F**

Lot-specific information

Olerup SSP[®] DRB1*11

Product number: 101.115-24u/03 – without *Taq* pol.
Lot number: 43F
Expiry date: 2010-December-01
Number of tests: 24 tests – Product No. 101.115-24u
3 tests – Product No. 101.115-03u
Number of wells per test: 32
Storage - pre-aliquoted primers: dark at -20°C
- PCR Master Mix: -20°C
- Adhesive PCR seals RT
- Product Insert RT

This Product Description is only valid for Lot No. 43F.

CHANGES COMPARED TO THE PREVIOUS *OLERUP SSP[®]* DRB1*11 LOT

The DRB1*11 specificity and interpretation tables have been updated for the DRB1 alleles described since the previous *Olerup SSP[®]* DRB1*11 lot was made (Lot No. Y48).

The primers of the wells detailed below have been exchanged, added or modified compared to the previous lot.

Well	5'-primer	3'-primer	rationale
9	-	Modified	Primer modified for the DRB1*1153 allele.
14	Exchanged	Exchanged	Primer pair exchanged to decrease primer dimer formation tendency.
20	-	Modified	Increased specificity of specific primer pair
22	-	Added	Primer added for the DRB1*1169 allele.
29	Modified	-	Increased specificity of specific primer pair
31	Modifier	-	Increased specificity of specific primer pair

Changes in revision R01 compared to R00:

1. Length of the specific PCR products generated by primer mixes 12 and 13 have been corrected in the Interpretation Table.

Changes in revision R03 compared to R02:

2. The DRB1*1136, 1168, 1320, 1329, 1343, 1371 and 1378 are weakly amplified by primer mix 4.

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PRODUCT DESCRIPTION

DRB1*11 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the DRB1*1101 to DRB1*1170 alleles.

PLATE LAYOUT

Each test consists of 32 PCR reactions in a 32 well cut PCR plate.

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32

The 32 well cut PCR plate is marked with 'DRB1*11, in silver/gray ink.

Well No. 1 is marked with the Lot No. '43F'.

The PCR plates are heat-sealed with a PCR-compatible foil.

Please note: When removing each 32 well PCR plate, make sure that the remaining plates stay sealed. Use a scalpel or a similar instrument to carefully cut the foil between the plates.

INTERPRETATION

The interpretation of DRB1*11 PCR-SSP subtypings will be influenced by two DRB1*01 alleles, seventeen DRB1*03 alleles, twelve DRB1*04 alleles, most DRB1*07 alleles, most DRB1*08 alleles, all DRB1*12 alleles, many DRB1*13 and DRB1*14 alleles, nine DRB1*15 and four DRB1*16 alleles when present on the other haplotype. In addition, the DRB3*0211, DRB5*0107, DRB5*0111 and DRB5*0203 alleles are amplified by primer mix 29 and the DRB3*0218 allele is amplified by primer mixes 7, 10, 12 and 18 and the DRB5*0113 allele is amplified by primer mixes 3, 5 and 7.

UNIQUELY IDENTIFIED ALLELES

All the phenotypically different DRB1*11 alleles¹, i.e. **DRB1*1101 to DRB1*1170**, recognized by the HLA Nomenclature Committee in October 2008² will give rise to unique amplification patterns by the primers in the DRB1*11 subtyping kit.

The DRB1*11 subtyping kit cannot distinguish the DRB1*110101 to 110107 alleles, the DRB1*110201 and 110202 alleles, the DRB1*110401 to 110403 alleles, the DRB1*110601 and 110602 alleles, the DRB1*110801 and 110802 alleles, the DRB1*111101 and 111102 alleles, the DRB1*111401 and 1111402 alleles, the DRB1*111901 and 111902 alleles, the DRB1*112701 and 112702 alleles, the DRB1*115401 and 115402 alleles and the DRB1*116501 and 116502 alleles.

¹The nucleotide sequence of the DRB1*111002 allele is not yet retrievable. The DRB1*1171 allele is not included in the kit.

²DRB1 alleles listed on the IMGT/HLA web page 2008-October-10, release 2.23.0, www.ebi.ac.uk/imgt/hla.

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RESOLUTION IN HOMO- AND HETEROZYGOTES

The 70 DRB1*11 alleles give rise to 71 different amplification patterns that can be combined in 2556 homozygous and heterozygous combinations. 869 of these genotypes do not give rise to unique amplification patterns. (The different lengths of the specific PCR products in lanes 10, 11, 12, 13, 15, 19, 21, 22 and 24 were not considered in these calculations.)

+++++--+	++-----	+--+-----	-----++-	1131,1167 = 1145,1167
+++-+--+	++-----	+--+-----	-----++-	1105,1125 = 1123,1167 = 1132,1167
+++-+--+	++-----	+-----+--	-----++-	1133,1167 = 1167,1169
+++-+--+	++-----	+-----+--	-----++-	1101,1167 = 1126,1167 = 1153,1167
+++-+--+	--+-----	-----+--	-----++-	1105,1106 = 1105,1157
+++-+--+	-----+--	-----+--	-----++-	1105,1133 = 1105,1169
+++-+--+	++++-----	+-----+--	-----++-	1106,1167 = 1157,1167
+++-+--+	++-----	+-----+--	-----++-	1104,1167 = 1134,1167 = 1154,1167
+-----++	++-----	+--+-----	-----++-	1103,1145 = 1119,1155 = 1131,1155 = 1145,1155
+-----++	++-----	+--+-----	-----++-	1102,1123 = 1123,1170
+-----++	+--+-----	--+-----	-----++-	1130,1170 = 1161,1170
+-----++	+--+-----	--+-----	++--+--	1109,1170 = 1116,1132
+-----++	+-----+--	--+-----	-----++-	1132,1165 = 1133,1170
+-----++	+-----+--	--+-----	-----++-	1101,1170 = 1102,1132 = 1132,1170
+-----++	--+-----	-----+--	-----++-	1121,1130 = 1121,1161
+-----++	--+-----	-----+--	-----++-	1101,1121 = 1121,1139
+-----++	-----+--	-----+--	++--+--	1116,1130 = 1116,1161
+-----++	-----+--	-----+--	-----++-	1130,1148 = 1148,1161
+-----++	-----+--	-----+--	-----++-	1130,1165 = 1161,1165
+-----++	-----+--	-----+--	-----++-	1102,1130 = 1102,1161
+-----++	-----+--	-----+--	++--+--	1110,1116 = 1112,1116
+-----++	-----+--	-----+--	++--+--	1109,1165 = 1116,1133
+-----++	-----+--	-----+--	+++-----	1104,1120 = 110404,1120 = 1120,1146 = 1120,1158 = 1120,1160
+-----++	-----+--	-----+--	++--+--	1101,1116 = 1102,1109 = 1109,1116 = 1116,1128 = 1116,1162
+-----++	-----+--	-----+--	-----++-	1102,1137 = 1137,1148
+-----++	-----+--	-----+--	-----++-	1102,1115 = 1115,1165 = 1124,1165
+-----++	-----+--	-----+--	-----++-	1101,1165 = 1102,1133 = 1133,1165
+-----+--	++-----	+--+-----	-----++-	1111,1145 = 1114,1123
+-----+--	-----+--	-----+--	+++-----	1120,1130 = 1120,1161
+-----+--	-----+--	-----+--	-----++-	1114,1130 = 1114,1161
+-----+--	-----+--	-----+--	+++-----	1110,1120 = 1112,1120

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+--++++++	--+-----	-----+	--+---+-	1106,1111 = 1106,1168 =
				1111,1157 = 1143,1168
+--++++++	--+-----	-----	--+---+-	1104,1168 = 1111,1142
+--++++++	--+-----	-----	---+---	1101,1136 = 1103,1108
+--++++++	---+---	---+---	++-+---	1130,1159 = 1159,1161
+--++++++	---+---	-----	++-+---	1130,1140 = 1140,1161
+--++++++	---+---	-----	---+---	1130,1141 = 1141,1161
+--++++++	---+---	---+---	---+---	1130,1163 = 1161,1163
+--++++++	---+---	-----	---+---	1103,1130 = 1103,1161
+--++++++	---+---	-----	++-+---	1109,1141 = 1137,1140
+--++++++	---+---	---+---	++-+---	1110,1159 = 1112,1159
+--++++++	---+---	---+---	++-+---	1110,1140 = 1112,1140
+--++++++	---+---	---+---	++-+---	1109,1163 = 1129,1140
+--++++++	---+---	---+---	++-+---	1101,1159 = 1109,1159 =
				1122,1140 = 1122,1159 =
				1128,1159 = 1159,1162
+--++++++	---+---	-----	++-+---	1101,1140 = 1103,1109 =
				1109,1140 = 1128,1140 =
				1140,1162
+--++++++	-----+	---+---	---+---	1129,1141 = 1137,1163
+--++++++	-----+	-----	---+---	1101,1141 = 1103,1137
+--++++++	-----+	---+---	++-+---	1103,1110 = 1110,1163
+--++++++	-----+	---+---	---+---	1103,1112 = 1112,1163 =
				1163,1166
+--++++++	-----+	---+---	---+---	1103,1149 = 1124,1163 =
				1149,1163
+--++++++	-----	---+---	---+---	1101,1163 = 1103,1129 =
				1129,1163
+--+++++-	+++-----	+--+-----	--+---+-	1111,1164 = 1123,1168
+--+++++-	--+-----	-----	--+---+-	1130,1168 = 1161,1168
+--+++++-	--+-----	-----	--+---+-	1101,1168 = 1108,1111
+--+++++-	---+-----	-----	--+---+-	1111,1130 = 1111,1161
+--+++++-	+++-----	+--+-----	---+---+	1106,1155 = 1155,1157
+--+++++-	+++-----	+--+-----	---+---+	1125,1136 = 1142,1155
+--+++++-	++-----	+--+-----	++-+---+	1117,1155 = 1152,1155
+--+++++-	++-----	+--+-----	---+---+	1125,1141 = 1155,1156
+--+++++-	++-----	+--+-----	---+---+	1103,1125 = 1104,1155 =
				1125,1155 = 1154,1155
+--+++++-	++-----	+--+-----	---+----	1103,1155 = 1134,1155 =
				1155,1155
+--+++++-	-+-----	+--+-----	++-+---+	1103,1152 = 1152,1163
+--+++++-	-+-----	+--+-----	++-+---+	1103,1117 = 1117,1163
+--+++++-	-+-----	---+---	++-+---+	1103,1113 = 1113,1163
+--+++++-	--+-----	---+---	++-+---+	1106,1159 = 1157,1159
+--+++++-	--+-----	-----+	++-+---+	1106,1140 = 1140,1157
+--+++++-	--+-----	-----	---+---+	1136,1156 = 1141,1142
+--+++++-	--+-----	---+---	---+---+	1103,1147 = 1106,1163 =
				1136,1147 = 1147,1163 =
				1157,1163
+--+++++-	--+-----	-----+	---+---+	1103,1106 = 1103,1157 =
				1106,1136 = 1136,1143
+--+++++-	--+-----	-----	---+---+	1103,1142 = 1104,1136

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+--+---++	-----+	-----+	+--+---++	1104,1159 = 110404,1159 =
				1146,1159 = 1158,1159 =
				1159,1160
+--+---++	-----+	-----	+--+---++	1104,1140 = 110404,1140 =
				1140,1146 = 1140,1158 =
				1140,1160
+--+---++	-----+	-----+	+--+---++	1103,1150 = 1150,1163
+--+---++	-----+	-----	+--+---++	1103,1156 = 1104,1141
+--+---++	-----+	-----	+--+---++	1103,1144 = 1144,1163
+--+---++	+++-----	+--+---++	+--+---++	1123,1147 = 1147,1164
+--+---++	+++-----	+--+---++	+--+---++	1106,1123 = 1106,1164 =
				1123,1157 = 1143,1164
+--+---++	+++-----	+--+---++	+--+---++	1104,1164 = 1108,1125 =
				1123,1142 = 1125,1164 =
				1154,1164
+--+---++	+--+---++	+--+---++	+--+---++	1125,1130 = 1125,1161
+--+---++	+--+---++	+--+---++	+--+---++	1107,1130 = 1107,1161
+--+---++	+--+---++	+--+---++	+--+---++	1123,1160 = 1125,1128
+--+---++	+--+---++	+--+---++	+--+---++	1117,1123 = 1117,1132 =
				1123,1152 = 1132,1152
+--+---++	+--+---++	+--+---++	+--+---++	1123,1156 = 1125,1137
+--+---++	+--+---++	+--+---++	+--+---++	1123,1144 = 1125,1149
+--+---++	+--+---++	+--+---++	+--+---++	1123,1135 = 1125,1133 =
				1125,1169
+--+---++	+--+---++	+--+---++	+--+---++	1123,1143 = 1125,1139
+--+---++	+--+---++	+--+---++	+--+---++	1101,1125 = 1104,1123 =
				1123,1125 = 1123,1154 =
				1125,1126 = 1125,1132 =
				1125,1153
+--+---++	+--+---++	+--+---++	+--+---++	1104,1153 = 1153,1154
+--+---++	+--+---++	+--+---++	+--+---++	1101,1107 = 1107,1127
+--+---++	+--+---++	+--+---++	+--+---++	1106,1132 = 1132,1157
+--+---++	+--+---++	+--+---++	+--+---++	1130,1152 = 1152,1161
+--+---++	+--+---++	+--+---++	+--+---++	1117,1130 = 1117,1161
+--+---++	+--+---++	+--+---++	+--+---++	1113,1130 = 1113,1161
+--+---++	+--+---++	+--+---++	+--+---++	1130,1134 = 1134,1161
+--+---++	+--+---++	+--+---++	+--+---++	1109,1152 = 1128,1152
+--+---++	+--+---++	+--+---++	+--+---++	1109,1117 = 1117,1128
+--+---++	+--+---++	+--+---++	+--+---++	1109,1113 = 1113,1128
+--+---++	+--+---++	+--+---++	+--+---++	1124,1152 = 1149,1152
+--+---++	+--+---++	+--+---++	+--+---++	1117,1124 = 1117,1149
+--+---++	+--+---++	+--+---++	+--+---++	1101,1152 = 1110,1152 =
				1112,1152 = 1129,1152 =
				1151,1152 = 1152,1162 =
				1152,1166
+--+---++	+--+---++	+--+---++	+--+---++	1101,1117 = 1110,1117 =
				1112,1117 = 1117,1129 =
				1117,1151 = 1117,1162 =
				1117,1166
+--+---++	+--+---++	+--+---++	+--+---++	1113,1124 = 1113,1149
+--+---++	+--+---++	+--+---++	+--+---++	1101,1113 = 1110,1113 =
				1112,1113 = 1113,1129 =

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				1113,1151 = 1113,1162 =
				1113,1166
+--+---++	--++-----	---+----+	-----++-	1130,1147 = 1147,1161
+--+---++	--++-----	-----++	-----++-	1106,1130 = 1106,1161 =
				1130,1157 = 1157,1161
+--+---++	--++-----	-----	-----++-	1130,1142 = 1142,1161
+--+---++	--++-----	-----++	++-----	1106,1109 = 1109,1157
+--+---++	--++-----	-----++	-----++-	1106,1128 = 1128,1157
+--+---++	--++-----	-----	-----++-	1108,1160 = 1128,1142
+--+---++	--++-----	-----	-----++-	1108,1156 = 1137,1142
+--+---++	--++-----	---+----+	++-----	1106,1110 = 1110,1147 =
				1110,1157
+--+---++	--+-----	---+----+	-----++-	1106,1112 = 1112,1147 =
				1112,1157 = 1147,1166
+--+---++	--+-----	-----++	-----++-	1106,1166 = 1157,1166
+--+---++	--+-----	---+----+	-----++-	1106,1149 = 1124,1147 =
				1147,1149 = 1149,1157
+--+---++	--+-----	---+-----	-----++-	1108,1144 = 1142,1149
+--+---++	--+-----	-----++	-----++-	1106,1115 = 1115,1157
+--+---++	--+-----	-----++	-----++-	1106,1124 = 1124,1157
+--+---++	--+-----	+-----	-----++-	1106,1127 = 1127,1157
+--+---++	--+-----	---+----+	-----++-	1133,1147 = 1147,1169
+--+---++	--+-----	---+----+	-----++-	1101,1147 = 1106,1129 =
				1108,1147 = 1129,1147 =
				1129,1157 = 1139,1147
+--+---++	--+-----	---+----+	+-----++-	1106,1122 = 1122,1157
+--+---++	--+-----	---+----+	-----++-	1106,1133 = 1106,1169 =
				1133,1157
+--+---++	--+-----	-----+--	-----++-	1108,1135 = 1133,1142
+--+---++	--+-----	-----++	+-----++-	1106,1162 = 1157,1162
+--+---++	--+-----	-----++	-----+++	1106,1151 = 1151,1157
+--+---++	--+-----	-----++	-----++-	1101,1106 = 1101,1157 =
				1106,1108 = 1106,1139 =
				1108,1143 = 1139,1142 =
				1139,1157
+--+---++	--+-----	-----	-----++-	1101,1142 = 1104,1108
+--+---++	---+----	-----	+-----++-	1130,1158 = 1158,1161
+--+---++	---+----	-----	-----++-	1130,1160 = 1160,1161
+--+---++	---+----	---+----+	-----++-	1130,1150 = 1150,1161
+--+---++	---+----	-----	-----++-	1130,1156 = 1156,1161
+--+---++	---+----	---+----	-----++-	1130,1144 = 1144,1161
+--+---++	---+----	+-----	-----++-	1130,1154 = 1154,1161
+--+---++	---+----	-----+--	-----++-	1130,1135 = 1135,1161
+--+---++	---+----	-----+--	-----++-	1130,1138 = 1138,1161
+--+---++	---+----	-----++	-----++-	1130,1143 = 1143,1161
+--+---++	---+----	-----	++-----	1130,1146 = 1146,1161
+--+---++	---+----	-----	+-----++-	110404,1130 = 110404,1161
+--+---++	---+----	-----	-----++-	1104,1130 = 1104,1161
+--+---++	---+----	-----	-----++-	1128,1156 = 1137,1160
+--+---++	---+----	---+----	++-----	1110,1158 = 1110,1160
+--+---++	---+----	---+----	-----++-	1128,1144 = 1149,1160
+--+---++	---+----	---+----	+-----++-	1122,1158 = 1122,1160
+--+---++	---+----	-----+--	+-----++-	1133,1158 = 1158,1169

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+--+--+	-----	-----	-----	1128,1135 = 1133,1160 = 1160,1169
+--+--+	-----	-----	-----	1128,1143 = 1139,1160
+--+--+	-----	-----	++++	1104,1109 = 110404,1109 = 1109,1146 = 1109,1158 = 1109,1160 = 1128,1146 = 1158,1162
+--+--+	-----	-----	++++	1101,1158 = 110404,1128 = 1128,1158
+--+--+	-----	-----	-----	1101,1160 = 1104,1128 = 1128,1160
+--+--+	-----	-----	-----	1112,1150 = 1150,1166
+--+--+	-----	-----	-----	1115,1150 = 1133,1150
+--+--+	-----	-----	-----	1101,1150 = 1124,1150 = 1129,1150 = 1139,1150 = 1149,1150
+--+--+	-----	-----	-----	1137,1144 = 1149,1156
+--+--+	-----	-----	-----	1133,1156 = 1135,1137
+--+--+	-----	-----	-----	1137,1143 = 1139,1156
+--+--+	-----	-----	-----	1101,1156 = 1104,1137
+--+--+	-----	-----	-----	1112,1144 = 1144,1166
+--+--+	-----	-----	++++	1104,1110 = 110404,1110 = 1110,1146 = 1112,1146
+--+--+	-----	-----	-----	1115,1144 = 1133,1144 = 1135,1149 = 1144,1169
+--+--+	-----	-----	-----	1139,1144 = 1143,1149
+--+--+	-----	-----	-----	1101,1144 = 1104,1149 = 1124,1144 = 1129,1144 = 1144,1149
+--+--+	-----	-----	-----	1104,1115 = 1115,1135 = 1124,1135
+--+--+	-----	++++	-----	1133,1154 = 1154,1169
+--+--+	-----	-----	++++	1104,1122 = 110404,1122
+--+--+	-----	-----	-----	1133,1138 = 1138,1169
+--+--+	-----	-----	-----	1133,1143 = 1135,1139 = 1143,1169
+--+--+	-----	-----	++++	1133,1146 = 1146,1169
+--+--+	-----	-----	++++	110404,1133 = 110404,1169
+--+--+	-----	-----	-----	1101,1135 = 1104,1133 = 1104,1169 = 1133,1135 = 1135,1169
+--+--+	-----	-----	-----	1101,1143 = 1104,1139 = 1139,1143
+--+--+	-----	-----	++++	1101,1146 = 110404,1162 = 1146,1162
+--+--+	++++	++++	-----	1130,1164 = 1161,1164
+--+--+	++++	++++	-----	1101,1164 = 1108,1123 = 1123,1164 = 1132,1164
+--+--+	++++	++++	-----	1123,1130 = 1123,1161
+--+--+	++++	++++	-----	1130,1153 = 1153,1161
+--+--+	++++	++++	-----	1123,1133 = 1123,1169

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+--+--+	++-----	+--+-----	-----+--	1101,1123 = 1123,1123 =
				1123,1126 = 1123,1132 =
				1123,1153 = 1132,1153
+--+--+	+--+-----	--+-----	-----+--	1130,1132 = 1132,1161
+--+--+	+-----	--+--+--	-----+--	1132,1133 = 1132,1169
+--+--+	+-----	--+-----	-----+--	1101,1132 = 1132,1132
+--+--+	-+-----	-----	-----+--	1126,1130 = 1126,1161
+--+--+	--+-----	-----	-----+--	1108,1130 = 1108,1161
+--+--+	-----+--	-----	++-----	1109,1130 = 1109,1161
+--+--+	-----+--	-----	-----+--	1128,1130 = 1128,1161
+--+--+	-----+--	-----	-----+--	1130,1137 = 1137,1161
+--+--+	-----+--	-----	++-----	1110,1130 = 1110,1161
+--+--+	-----+--	-----	-----+--	1112,1130 = 1112,1161
+--+--+	-----+--	-----	-----+--	1130,1166 = 1161,1166
+--+--+	-----+--	-----	-----+--	1130,1149 = 1149,1161
+--+--+	-----+--	-----	-----+--	1115,1130 = 1115,1161
+--+--+	-----+--	-----	-----+--	1124,1130 = 1124,1161
+--+--+	-----	-+-----	-----+--	1127,1130 = 1127,1161
+--+--+	-----	-----	-----+--	1129,1130 = 1129,1161
+--+--+	-----	-----	-----+--	1130,1133 = 1130,1169 =
				1133,1161 = 1161,1169
+--+--+	-----	-----+	-----+--	1130,1139 = 1139,1161
+--+--+	-----	-----	-+-----	1130,1162 = 1161,1162
+--+--+	-----	-----	-----+--	1130,1151 = 1151,1161
+--+--+	-----	-----	-----+--	1101,1130 = 1101,1161 =
				1130,1161 = 1161,1161
+--+--+	-----+--	-----	++-----	1109,1110 = 1109,1112 =
				1110,1128
+--+--+	-----+--	-----	++-----	1109,1133 = 1109,1169
+--+--+	-----+--	-----	-----+--	1128,1133 = 1128,1169
+--+--+	-----+--	-----	++-----	1101,1109 = 1109,1109 =
				1109,1128 = 1109,1162
+--+--+	-----+--	-----	-----+--	1101,1128 = 1128,1128
+--+--+	-----+--	-----	++-----	1110,1124 = 1110,1149
+--+--+	-----+--	-----	-----+--	1112,1124 = 1112,1149 =
				1149,1166
+--+--+	-----+--	-----	++-----	1110,1133 = 1110,1169
+--+--+	-----+--	-----	-----+--	1112,1133 = 1112,1169
+--+--+	-----+--	-----	++-----	1101,1110 = 1110,1110 =
				1110,1112 = 1110,1129 =
				1110,1162 = 1110,1166
+--+--+	-----+--	-----	-----+--	1101,1112 = 1112,1112 =
				1112,1129 = 1112,1166 =
				1129,1166
+--+--+	-----+--	-----	-----+--	1133,1166 = 1166,1169
+--+--+	-----+--	-----	-----+--	1101,1166 = 1166,1166
+--+--+	-----+--	-----	-----+--	1115,1129 = 1115,1149 =
				1133,1149 = 1149,1169
+--+--+	-----+--	-----	-----+--	1101,1149 = 1124,1129 =
				1124,1149 = 1129,1149 =
				1149,1149
+--+--+	-----+--	-----	-----+--	1101,1115 = 1115,1115 =
				1115,1124 = 1115,1133 =

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				1115,1169 = 1124,1133 =
				1124,1169
+--+--+--	-----+	-----	-----+--	1101,1124 = 1124,1124
+--+--+--	-----	+-----	-----+--	1127,1133 = 1127,1169
+--+--+--	-----	+-----	-----+--	1101,1127 = 1127,1127
+--+--+--	-----	-----	-----+--	1129,1133 = 1129,1169
+--+--+--	-----	-----	-----+--	1101,1129 = 1129,1129
+--+--+--	-----	-----	+-----+--	1122,1133 = 1122,1169
+--+--+--	-----	-----	-----+--	1133,1139 = 1139,1169
+--+--+--	-----	-----	+-----+--	1133,1162 = 1162,1169
+--+--+--	-----	-----	-----+--	1101,1133 = 1101,1169 =
				1133,1133 = 1133,1169
+--+--+--	-----	-----	-----+--	1101,1139 = 1139,1139
+--+--+--	-----	-----	+-----+--	1101,1162 = 1162,1162
+--+--+--	+++-----	+-----	-----+--	1106,1125 = 1125,1157
+--+--+--	+++-----	+-----	+++-----	1117,1125 = 1125,1152
+--+--+--	+++-----	+-----	-----+--	1104,1125 = 1125,1125 =
				1125,1134 = 1125,1154
+--+--+--	+-----	+-----	+++-----	1106,1152 = 1147,1152
+--+--+--	+-----	+-----	+++-----	1106,1117 = 1117,1147
+--+--+--	+-----	-----	+++-----	1106,1113 = 1113,1147
+--+--+--	+-----	+-----	+++-----	1152,1158 = 1152,1160
+--+--+--	+-----	+-----	+++-----	1117,1158 = 1117,1160
+--+--+--	+-----	-----	+++-----	1113,1158 = 1113,1160
+--+--+--	+-----	+-----	+++-----	1104,1152 = 110404,1152 =
				1146,1152 = 1152,1154
+--+--+--	+-----	+-----	+++-----	1104,1117 = 110404,1117 =
				1117,1146 = 1117,1154
+--+--+--	+-----	-----	+++-----	1104,1113 = 110404,1113 =
				1113,1146
+--+--+--	+-----	-----	+-----+--	1106,1158 = 1157,1158
+--+--+--	+-----	-----	-----+--	1106,1160 = 1157,1160
+--+--+--	+-----	-----	-----+--	1106,1150 = 1147,1150
+--+--+--	+-----	-----	-----+--	1142,1150 = 1150,1157
+--+--+--	+-----	-----	-----+--	1106,1144 = 1144,1147 =
				1144,1157
+--+--+--	+-----	+-----	-----+--	1106,1154 = 1154,1157
+--+--+--	+-----	-----	-----+--	1104,1147 = 1106,1147 =
				1142,1147 = 1143,1147 =
				1147,1147 = 1147,1157
+--+--+--	+-----	-----	-----+--	1106,1135 = 1135,1157
+--+--+--	+-----	-----	-----+--	1106,1138 = 1138,1157
+--+--+--	+-----	-----	+-----+--	1106,1146 = 1146,1157
+--+--+--	+-----	-----	+-----+--	110404,1106 = 110404,1157
+--+--+--	+-----	-----	-----+--	1104,1106 = 1104,1157 =
				1106,1106 = 1106,1142 =
				1106,1143 = 1106,1157 =
				1142,1143 = 1143,1157
+--+--+--	+-----	-----	+-----+--	1146,1158 = 1146,1160
+--+--+--	+-----	-----	+-----+--	1104,1158 = 110404,1158 =
				110404,1160 = 1158,1158 =
				1158,1160
+--+--+--	+-----	-----	-----+--	1104,1160 = 1160,1160

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+--+---+ +-----+ +-----+ +-----+	1104,1150 = 1143,1150 = 1144,1150
+--+---+ +-----+ +-----+ +-----+	1150,1150 = 1150,1156
+--+---+ +-----+ +-----+ +-----+	1104,1144 = 1144,1144
+--+---+ +-----+ +-----+ +-----+	1104,1154 = 1154,1154
+--+---+ +-----+ +-----+ +-----+	1104,1135 = 1135,1135
+--+---+ +-----+ +-----+ +-----+	1104,1138 = 1138,1138
+--+---+ +-----+ +-----+ +-----+	1104,1143 = 1143,1143
+--+---+ +-----+ +-----+ ++-----	1104,1146 = 110404,1146 = 1146,1146
+--+---+ +-----+ +-----+ +-----+	1104,110404 = 110404,110404
+--+---+ +-----+ +-----+ +-----+	1103,1168 = 1111,1136
+--+---+ +-----+ +-----+ ++-----	1103,1159 = 1140,1159 = 1159,1159
+--+---+ +-----+ +-----+ ++-----	1103,1140 = 1140,1140
+--+---+ +-----+ +-----+ +-----+	1103,1163 = 1163,1163
+-----+ +-----+ +-----+ +-----+	1102,1164 = 1164,1170
+-----+ +-----+ +-----+ +-----+	1102,1145 = 1145,1170
+-----+ +-----+ +-----+ +-----+	1119,1170 = 1131,1170
+-----+ +-----+ +-----+ +-----+	1114,1164 = 1145,1168
+-----+ +-----+ +-----+ +-----+	1108,1114 = 1119,1168
+-----+ +-----+ +-----+ ++-----	1117,1170 = 1152,1170
+-----+ +-----+ +-----+ ++-----	1102,1152 = 1148,1152
+-----+ +-----+ +-----+ ++-----	1102,1117 = 1117,1148
+-----+ +-----+ +-----+ +-----+	1102,1157 = 1118,1121 = 1121,1142 = 1121,1157
+-----+ +-----+ +-----+ +-----+	1102,1142 = 1118,1136
+-----+ +-----+ +-----+ ++-----	1117,1145 = 1145,1152
+-----+ +-----+ +-----+ ++-----	1117,1131 = 1119,1152 = 1131,1152
+-----+ +-----+ +-----+ +-----+	1108,1145 = 1119,1164 = 1131,1164 = 1145,1164
+-----+ +-----+ +-----+ +-----+	1119,1145 = 1126,1145 = 1131,1145 = 1131,1153 = 1145,1145 = 1145,1153
+-----+ +-----+ +-----+ +-----+	1119,1131 = 1131,1131
+-----+ +-----+ +-----+ +-----+	1102,1120 = 1114,1116 = 1116,1120
+-----+ +-----+ +-----+ +-----+	1102,1169 = 1165,1169
+-----+ +-----+ +-----+ +-----+	1114,1120 = 1120,1120
+-----+ +-----+ +-----+ +-----+	1102,1170 = 1170,1170
+-----+ +-----+ +-----+ +-----+	1102,1121 = 1121,1121 = 1121,1136
+-----+ +-----+ +-----+ +-----+	1102,1116 = 1116,1116
+-----+ +-----+ +-----+ +-----+	1102,1148 = 1148,1148
+-----+ +-----+ +-----+ +-----+	1102,1165 = 1165,1165
+-----+ +-----+ +-----+ +-----+	1117,1164 = 1152,1164
+-----+ +-----+ +-----+ +-----+	1108,1164 = 1126,1164 = 1153,1164 = 1164,1164
+-----+ +-----+ +-----+ +-----+	1113,1152 = 1117,1152 = 1134,1152 = 1152,1152
+-----+ +-----+ +-----+ +-----+	1113,1117 = 1117,1117 = 1117,1134

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+-----+ -+-----+ -++-----+ ++-----+	1113,1113 = 1113,1134
+-----+ -+-----+ -++-----+ -++-----+	1142,1157 = 1157,1157

1104 = 110401-110403

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Lot-specific information

SPECIFICITY TABLE

DRB1*11 SSP subtyping

Specificities and sizes of the PCR products of the 32 primer mixes used for DRB1*11 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified DRB*11 alleles ³	Other amplified DRB alleles ^{3,4}
1	175 bp	515 bp	110101-110404, 110601-1121, 1123-1129, 1131-1166, 1168-1170	0308
2	175 bp	430 bp	1105, 1167	0831, 1204, 1411
3 ⁵	65 bp	430 bp	110101-110107, 1103-110602, 1109, 111001-111101-111202, 1115, 1122-1125, 112701-1130, 1132, 1133, 1135, 1137-1141, 1143, 1144, 1146, 1147, 1149-1151, 115401-1156, 1158-1163, 1166, 1167	0415, 0831, DRB5*0113
4	200 bp	430 bp	110201-110202, 111401-111402, 1116, 1118-1121, 1131, 1136 ^{weakly} , 1145, 1148, 116501-116502, 1168 ^{weakly} , 1170	130101-1304, 1306, 1308, 1310, 1312, 1313, 1315, 1316, 1319, 1320 ^{weakly} , 1322, 1323, 1327, 1328, 1329 ^{weakly} , 1330-1341, 1343 ^{weakly} , 1345, 1348, 1351-1353, 1357-1359, 1361, 1364-1366, 1368-1370, 1371 ^{weakly} , 1372, 1373, 1374 ^{weakly} , 1376, 1377, 1378 ^{weakly} , 1379-1385, 1387, 1416, 1463, 1467, 1478
5 ^{5,6}	85 bp	515 bp	110101-110107, 110401-110602, 110801-111001, 111201-1113, 1115,	0415, 0461, 0831, 1204, 1411, DRB5*0113

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Lot-specific information

			1117-111902, 1122-1135, 1137-1139, 1142-1147, 1149, 1150, 1152, 115401-1158, 1160-1162, 1164, 1166, 1167	
6^{5,6}	80 bp	515 bp	110201-1103, 111101-111102, 111401-111402, 1116, 1120, 1121, 1136, 1140, 1141, 1148, 1155, 1159, 1163, 116501-116502, 1168, 1170	
7⁵	125 bp	430 bp	110101-110107, 1105, 110801-111001-111202, 111401- 1115, 111901-1120, 1122-1124, 1126-1133, 1137, 1139, 1145, 1149, 1151, 1153, 1161, 1162, 1164, 1166, 1168, 1169	0461, DRB3*0218 , DRB5*0113
8⁵	125 bp	430 bp	110201-110404, 110601-1107, 1113, 1116-1118, 1121, 1125, 1134-1136, 1138, 1140-1144, 1146-1148, 1150, 1152, 115401-1160, 1163, 116501-116502, 1167, 1170	0308, 0415, 0831, 1204, 1411
9⁵	85 bp	430 bp	1107, 1123, 1125, 1132, 1145, 1153, 1155, 1164, 1167, 1170	0308
10^{5,7}	65, 85 bp	430 bp	1107, 1113, 1117, 1123, 1125, 1126, 1134, 1145, 1152, 1153 ^{weakly} , 1155, 1164, 1167	0308, 0461, 1411, DRB3*0218
11⁸	200, 255 bp	515 bp	110601-110602, 110801-110802, 1121, 1136, 1142, 1147, 1157, 1164, 1168	0320, 1320, 1325, 1329, 1343, 1356, 1358, 1360, 1371, 1378, 1381, 140301-140302,

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Lot-specific information

				1412, 1429, 1440, 1469, 1474, 1477
12^{5,9}	95, 185 bp	430 bp	1130, 1161	DRB3*0218
13^{5,10}	70, 105 bp	430 bp	1109, 1116, 1120, 1128, 1140, 1158- 1160	0308
14^{5,6}	145 bp	430 bp	1117, 1137, 1141, 1148, 1150, 1152, 1156	030201-0303, 0306, 0317, 0326, 0327, 0331, 0335, 0338, 0820, 130301-130302, 130701-1308, 1312, 1313, 1319, 1326, 1332, 1333, 1336-1338, 1340, 1347-1349, 1353, 1355, 1358, 1360, 1365, 1370, 1372, 1376, 1381, 1384, 1385, 140101- 140301, 140501- 1409, 1412-1414, 1416, 1418-1420, 1422-1427, 1429, 143201-143202, 1434, 1436-1441, 1443-1445, 1447- 1449, 1451, 1454- 1456, 1458-1460, 1462, 1463, 1467, 1469, 1470, 1474, 1475, 1477, 1478, 1480-1483
15^{5,11}	60, 105 bp	430 bp	111001, 111201- 1113, 1117, 1152, 1166	1411
16⁵	110 bp	430 bp	1115, 1124, 1144, 1149, 1150	0326, 0333, 1362, 1368
17⁵	90 bp	430 bp	1117, 1123, 1125, 1145, 1152-1155, 1164, 1167	1411
18^{5,6}	95 bp	515 bp	1107, 112701- 112702	0308, DRB3*0218
19¹²	180, 225 bp	430 bp	1123, 1125, 1131, 1132, 1145, 1152, 1155, 1164, 1170	0310, 0820, 1313, 1318, 1343, 1345, 1347, 1355, 140101-140103,

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Lot-specific information

				140301-140302, 140701-1408, 1412, 1416, 1422, 1425-1427, 143201-143202, 1434, 1435, 1438- 1440, 1449, 1453- 1455, 1458, 1460, 1462, 1463, 1467, 1469, 1470, 1472, 1474, 1475, 1477, 1478, 1482
20^{5,6}	115 bp	515 bp	111001, 111201- 1113, 1117, 1129, 1144, 1147, 1149, 1150, 1152, 1163	0304, 0321, 0326, 0330, 0333, 0335, 1308, 1319, 1357, 1360, 1372, 1376, 1383, 1384, 1387, 140101-140103, 140501-140503, 140701-1408, 1414, 1416, 1420, 1422-142302, 1426, 143201- 143202, 1434- 1440, 1443-1445, 1449, 1454-1456, 1460, 1462, 1465, 1470, 1472, 1474, 1475, 1482
21¹³	135, 175 bp	430 bp	1122, 1159	0308, 0415, 0461
22^{5,14}	115, 180, 215 bp	430 bp	1115, 1133, 1135, 116501-116502, 1169	1309, 1362, 1424, 1437
23⁵	120 bp	430 bp	1138	
24¹⁵	155, 255 bp	430 bp	110601-110602, 1121, 1139, 1143, 1147, 1150, 1157	0317, 0320, 0337, 1358, 1381, 1429, 1459
25⁵	110 bp	515 bp	110404, 1109, 111001, 111202, 1113, 1116, 1117, 1120, 1122, 1140, 1146, 1152, 1158, 1159	0308, 1411
26⁵	120 bp	430 bp	1109, 111001, 1113, 1116, 1117, 1120, 1140, 1146, 1152, 1159, 1162	0308, 1411

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27⁵	85 bp	430 bp	111101-111102, 111401-111402, 1120, 1168	0103, 0414, 130201-130302, 1323, 1329, 1331, 1333, 1334, 1336- 1339, 1341, 1345, 1363, 1365, 1367, 1373, 1374
28⁵	85 bp	430 bp	110201-1103, 1116, 1121, 1136, 1140, 1141, 1148, 1155, 1159, 1163, 116501- 116502, 1170	0402, 0437, 130101-130103, 1304, 1308, 1310, 1315, 1317, 1319, 1320, 1322, 1324, 1327, 1328, 1332, 1335, 1340, 1343, 1348, 1351-1354, 1357, 1359, 1361, 1364, 1368-1372, 1375, 1376, 1378- 1380, 1383, 1384, 1387, 1416, 1457, 1510
29⁵	100 bp	515 bp	111401-111402, 111901-1120, 1131, 1145	0103, 0115, 0414, 0438, 07010101- 070103, 0703- 0715, 080302, 0814, 0815, 0818, 0819, 0823, 0825, 0827, 0829, 0830, 0832-0836, 130201-130302, 1312, 1313, 1323, 1330, 1331, 1333, 1334, 1336-1339, 1341, 1345, 1365- 1367, 1373, 1374, 1382, 1385, 1424, 1463, 1467, 150201-150206, 1511, 1514, 1519, 1526, 1529, 1530, 160501-160502, 1607, DRB3*0211, DRB5*0107, DRB5*0111, DRB5*0203
30⁵	100 bp	515 bp	110101-110107, 1103-110602, 1109,	0817, 0828, 120201-120203,

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			111001, 111101- 111202, 1115, 1122- 1125, 112701-1130, 1132, 1133, 1135, 1138-1140, 1143, 1144, 1146, 1147, 1149, 1151, 115401- 1155, 1158-1163, 1166, 1167	1213, 1215, 1216, 130501-130502, 131101-131102, 131401-131403, 1318, 1321, 1324, 1342, 1346, 135001-135002, 1354, 1362, 1363, 1375, 1453, 1609
31⁵	85 bp	515 bp	110401-110404, 110601-110602, 1118, 1125, 1135, 1138, 1142-1144, 1146, 1147, 1150, 115401-115402, 1156-1158, 1160, 1167	0412, 0415, 0418, 0425, 0436, 0453, 0458, 080401, 080404, 0806, 0810, 0812, 0820, 0822, 0828, 0831, 120101-120203, 120302-1215, 1217, 1306, 131101-131102, 1318, 1342, 1358, 1377, 1412, 1415, 1473, 1474, 1478, 1521
32⁵	75 bp	430 bp	1113, 1117, 1151, 1152	1411

¹Alleles are assigned by the presence of specific PCR product(s). However, the sizes of the specific PCR products may be helpful in the interpretation of DRB1*11 SSP typings.

When the primers in a primer mix can give rise to specific PCR products of more than one length this is indicated if the size difference is 20 base pairs or more. Size differences shorter than 20 base pairs are not given. For high resolution SSP kits the respective length of the specific PCR product(s) of the alleles amplified by these primer mixes are given.

Nonspecific amplifications, i.e. a ladder or a smear of bands, may sometimes be seen. GC-rich primers have a higher tendency of giving rise to nonspecific amplifications than other primers.

PCR fragments longer than the control bands may sometimes be observed. Such bands should be disregarded and do not influence the interpretation of the SSP typings.

PCR fragments migrating faster than the control bands, but slower than a 400 bp fragment may be seen in some gel read-outs. Such bands can be disregarded and do not influence the interpretation of the SSP typings.

Some primers may give rise to primer oligomer artifacts. Sometimes this phenomenon is an inherent feature of the primer pair(s) of a primer mix. More often it is due to other factors such as too low amount of DNA in the PCR reactions, taking too long time in setting up the PCR reactions, working at elevated room temperature or using thermal cyclers that are not pre-heated.

²The internal positive control primer pairs amplify segments of the human growth hormone gene. The two different control primer pairs give rise to either an internal positive control band of 430 base pairs, for most wells, or a band of 515 base pairs, for some wells.

Well number 1 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DRB1*11 subtyping.

In addition, wells number 5, 6, 11, 18, 20, 25, 29, 30 and 31 contain the primer pair giving rise to the longer, 515 bp, internal positive control band in order to allow kit identification.

In the presence of a specific amplification the intensity of the control band often decreases.

³For several DRB alleles only partial second exon nucleotide sequences are available. In these instances it is not known whether some of the primers of the SSP sets are completely matched

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Lot-specific information

with the target sequences or not. We assume that unknown sequences in the first hyperpolymorphic region of the second exon of DRB alleles are conserved within allelic groups and that unknown sequences of codons 87 to 92 are identical with the DRB1*0101 consensus sequence.

The nucleotide sequence of the DRB1*111002 allele is not yet retrievable. The DRB1*1171 allele is not included in the kit.

⁴Due to the sharing of sequence motifs within the DR52 group of DRB1 alleles, two DRB1*01 alleles, seventeen DRB1*03 alleles, twelve DRB1*04 alleles, most DRB1*07 alleles, most DRB1*08 alleles, all DRB1*12 alleles, many DRB1*13 and DRB1*14 alleles, nine DRB1*15 and four DRB1*16 alleles when present on the other haplotype. In addition, the DRB3*0211, DRB5*0107, DRB5*0111 and DRB5*0203 alleles are amplified by primer mix 29 and the DRB3*0218 allele is amplified by primer mixes 7, 10, 12 and 18 and the DRB5*0113 allele is amplified by primer mixes 3, 5, and 7.

⁵Specific PCR fragments shorter than 125 base pairs have a lower intensity than longer PCR bands. In order to have as little co-amplification as possible of non-DRB1*11 alleles by the primer pairs of the DRB1*11 subtyping kit, the DRB1*11 characteristic sequence motif in codon 58, 'Ag', has been used in either the 5'-primer or the 3'-primer in many of the DRB1*11 primer mixes and consequently many of the specific PCR products are shorter than 100 base pairs.

⁶Primer mixes 5, 6, 14, 18 and 20 frequently gives rise to nonspecific amplification and/or a primer oligomer artifact.

⁷Primer mix 10: Specific PCR fragment of 65 bp in the DRB1*1113, 1117, 1126, 1134, 1152, and the 0461, 1411 and DRB3*0218 alleles. Specific PCR fragment of 85 bp in the DRB1*1107, 1123, 1125, 1145, 1153^{weakly}, 1155, 1164, 1167 and the 0308 alleles.

⁸Primer mix 11: Specific PCR fragment of 200 bp in the DRB1*110801-110802, 1136, 1142, 1164, 1168 and the 1320, 1325, 1329, 1343, 1356, 1360, 1371, 1378, 140301-140302, 1412, 1440, 1469, 1474 and 1477 alleles. Specific PCR fragment of 255 bp in the DRB1*110601-110602, 1121, 1147, 1157 and the 0320, 1358, 1381 and 1429 alleles.

⁹Primer mix 12: Specific PCR fragment of 95 bp in the DRB1*1161 allele. Specific PCR fragment of 185 bp in the DRB1*1130 and the DRB3*0218 alleles.

¹⁰Primer mix 13: Specific PCR fragment of 70 bp in the DRB1*1160 allele. Specific PCR fragment of 105 bp in the DRB1*1109, 1116, 1120, 1128, 1140, 1158, 1159 and the 0308 alleles.

¹¹Primer mix 15: Specific PCR fragment of 60 bp in the DRB1*1166 allele. Specific PCR fragment of 105 bp in the DRB1*1110, 111201-111202, 1113, 1117, 1152, 1166 and the 1411 alleles.

¹²Primer mix 19: Specific PCR fragment of 180 bp in the DRB1*1131, 1152 and the 0310, 1343, 1345, 140101-140103, 140701-1408, 1416, 1422, 1425, 1426, 143201-143202, 1434, 1435, 1438, 1439, 1449, 1453-1455, 1463, 1469, 1470, 1472, 1474, 1475 and 1482 alleles. Specific PCR fragment of 225 bp in the DRB1*1123, 1125, 1132, 1145, 1155, 1164, 1170 and the 0820, 1313, 1318, 1347, 1355, 140301-140302, 1412, 1427, 1440, 1458, 1460, 1462, 1467, 1477 and 1478 alleles.

¹³Primer mix 21: Specific PCR fragment of 135 bp in the DRB1*1159 and the 0308 alleles. Specific PCR fragment of 175 bp in the DRB1*1122 and the 0415 and 0461 alleles.

¹⁴Primer mix 22: Specific PCR fragment of 115 bp in the DRB1*1115 and the 1362 alleles. Specific PCR fragment of 180 bp in the DRB1*1133, 1135 and 116501-116502 alleles. Specific PCR fragment of 215 bp in DRB1*1169 and 1309, 1424 and 1437 alleles.

¹⁵Primer mix 24: Specific PCR fragment of 155 bp in the DRB1*1139, 1143, 1150 and the 0317, 0337 and 1459 alleles. Specific PCR fragment of 255 bp in the DRB1*110601-110602, 1121, 1147, 1157 and the 0320, 1358, 1381 and 1429 alleles.

Lot No.: 43F

Lot-specific information

INTERPRETATION TABLE																
DRB1*11 SSP subtyping																
Amplification patterns of the DRB1*1101 to DRB1*1170 alleles																
	Well⁵															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Length of spec.	175	175	65	200	85	80	125	125	85	65	200	95	70	145	60	110
PCR product										85	255	185	105		105	
Length of int.	515	430	430	430	515	515	430	430	430	430	515	430	430	430	430	430
pos. control ¹																
5'-primer(s) ²	13	13	58	13	58	58	58	58	58	58	13	10	37	13	37	13
	5'-g TC ³	5'-g gg ³	5'-gAA ³	5'-g TC ³	5'-T gA ³	5'-gAg ³	5'-gAg ³	5'-gAg ³	5'-gAg ³	5'-gAg ³	5'-g TC ³	5'-g CT ³	5'-Ag A ³	5'-g TC ³	5'-g TT ³	5'-g TC ³
												41	49		52	
												5'-T CA ³	5'-gg A ³		5'-g AT ³	
3'-primer(s) ³	58	58	67	67	71	71	86	86	73	67	67	58	58	47	58	37
	5'-C CT ³	5'-C CT ³	5'-gAA ³	5'-gAT ³	5'-CCT ³	5'-CTC ³	5'-C AC ³	5'-C CA ³	5'-g gC ³	5'-gAg ³	5'-gAg ³	5'-C CT ³	5'-C CT ³	5'-gg T ³	5'-C CT ³	5'-gTC ³
	58		67	67	72				74	73	85					38
	5'-C CT ³		5'-gAA ³	5'-gAT ³	5'-gC g ³				5'-C CA ³	5'-g gC ³	5'-C Ag ³					5'-CAA ³
					74				74							38
					5'-CAg ³				5'-CAg ³							5'-g Cg ³
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
DRB1 allele ⁴																
*110101-110107	1		3		5		7									
*110201-110202	1			4		6		8								
*1103	1		3			6		8								
*110401-110403	1		3		5			8								
*110404	1		3		5			8								
*1105		2	3		5		7									
*110601-110602	1		3		5			8			11					
*1107	1							8	9	10						
*110801-110802	1				5		7				11					
*1109	1		3		5		7						13			
*111001	1		3		5		7								15	
*111101-111102	1		3			6	7									
*111201	1		3		5		7								15	
*111202	1		3		5		7								15	
*1113	1				5			8		10					15	
*111401-111402	1			4		6	7									
*1115	1		3		5		7									16
*1116	1			4		6		8					13			
*1117	1				5			8		10				14	15	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: 43F

Lot-specific information

INTERPRETATION TABLE																
DRB1*11 SSP subtyping																
Amplification patterns of the DRB1*1101 to DRB1*1170 alleles																
Well ⁵																
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
90	95	180	115	135	115	120	155	110	120	85	85	100	100	85	75	Length of spec.
		225		175	180		255									PCR product
				215												
430	515	430	515	430	430	430	430	515	430	430	430	515	515	515	430	Length of int. pos. control ¹
58	58	13	13	13	13	59	13	34	32	71	71	67	47	71	58	5'-primer(s) ²
5'-T gA ³ 5'-gAg ³ 5'-g TC ³ 5'-g TC ³				5'-A CA ³ 5'-g TC ³ 5'-g gg ³ 5'-g TC ³				5'-CAG ³ 5'-TC C ³ 5'-C gA ³ 5'-C gA ³				5'-AC A ³ 5'-g TT ³ 5'-C Ag ³ 5'-gAg ³				
				26						71	71					
				5'-g TA ³				5'-C AA ³ 5'-C AA ³								
74	77	60	37	58	38	86	51	58	58	86	86	86	67	86	70	3'-primer(s) ³
5'-CAG ³ 5'-A AT ³ 5'-gTg ³ 5'-C gA ³				5'-C CT ³ 5'-CAA ³ 5'-C CA ³ 5'-C CC ³				5'-C CT ³ 5'-C CT ³ 5'-C AC ³ 5'-C CA ³				5'-C AC ³ 5'-gAA ³ 5'-C CA ³ 5'-T CC ³				
74	77	74	37		59		85								72	
5'-C CT ³ 5'-A gT ³ 5'-C CA ³ 5'-C gg ³				5'-T Ag ³ 5'-C Ag ³								5'-C CT ³				
			38		71											
			5'-g Cg ³		5'-gC g ³											
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
																DRB1 allele ⁴
													30			*110101-110107
											28					*110201-110202
											28					*1103
													30	31		*110401-110403
								25					30	31		*110404
													30			*1105
							24						30	31		*110601-110602
	18															*1107
																*110801-110802
								25	26				30			*1109
			20					25	26				30			*111001
										27			30			*111101-111102
			20										30			*111201
			20					25					30			*111202
			20					25	26						32	*1113
										27		29				*111401-111402
					22								30			*1115
								25	26		28					*1116
17			20					25	26						32	*1117
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Lot No.: 43F

Lot-specific information

Length of spec.	175	175	65	200	85	80	125	125	85	65	200	95	70	145	60	110
PCR product										85	255	185	105		105	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*1118	1			4	5			8								
*111901-111902	1			4	5		7									
*1120	1			4		6	7						13			
*1121	1			4		6		8			11					
*1122			3		5		7									
*1123	1		3		5		7		9	10						
*1124	1		3		5		7									16
*1125	1		3		5			8	9	10						
*1126	1				5		7			10						
*112701-112702	1		3		5		7									
*1128	1		3		5		7						13			
*1129	1		3		5		7									
*1130			3		5		7					12				
*1131	1			4	5		7									
*1132	1		3		5		7		9							
*1133	1		3		5		7									
*1134	1				5			8		10						
*1135	1		3		5			8								
*1136	1			w		6		8			11					
*1137	1		3		5		7							14		
*1138	1		3		5			8								
*1139	1		3		5		7									
*1140	1		3			6		8					13			
*1141	1		3			6		8						14		
*1142	1				5			8			11					
*1143	1		3		5			8								
*1144	1		3		5			8								16
*1145	1			4	5		7		9	10						
*1146	1		3		5			8								
*1147	1		3		5			8			11					
*1148	1			4		6		8						14		
*1149	1		3		5		7									16
*1150	1		3		5			8						14		16
*1151	1		3				7									
*1152	1				5			8		10				14	15	
*1153	1						7		9	w						
*115401-115402	1		3		5			8								
*1155	1		3		5	6		8	9	10						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: 43F

Lot-specific information

90	95	180	115	135	115	120	155	110	120	85	85	100	100	85	75	Length of spec. PCR product
		225		175	180		255									
					215											
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
														31		*1118
												29				*111901-111902
								25	26	27		29				*1120
							24				28					*1121
				21				25					30			*1122
17		19											30			*1123
													30			*1124
17		19											30	31		*1125
	18												30			*1126
													30			*112701-112702
			20										30			*1128
													30			*1129
		19										29				*1130
		19											30			*1131
					22								30			*1132
													30			*1133
					22								30	31		*1134
																*1135
											28					*1136
																*1137
					23								30	31		*1138
							24						30			*1139
								25	26		28		30			*1140
																*1141
														31		*1142
							24						30	31		*1143
			20										30	31		*1144
17		19										29				*1145
			20					25	26				30	31		*1146
							24						30	31		*1147
																*1148
			20										30			*1149
			20				24							31		*1150
													30		32	*1151
17		19	20					25	26						32	*1152
17																*1153
17													30	31		*115401-115402
17		19									28		30			*1155
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Lot No.: **43F**

Lot-specific information

Length of spec.	175	175	65	200	85	80	125	125	85	65	200	95	70	145	60	110
PCR product										85	255	185	105		105	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*1156	1		3		5			8						14		
*1157	1				5			8			11					
*1158	1		3		5			8					13			
*1159	1		3			6		8					13			
*1160	1		3		5			8					13			
*1161	1		3		5		7					12				
*1162	1		3		5		7									
*1163	1		3			6		8								
*1164	1				5		7		9	10	11					
*116501-116502	1			4		6		8								
*1166	1		3		5		7								15	
*1167		2	3		5			8	9	10						
*1168	1			w		6	7				11					
*1169	1						7									
*1170	1			4		6		8	9							
*0103, 0414, 1367																
*0115, 0438, 07010101-070103, 0703-0715, 080302, 0814, 0815, 0818, 0819, 0823, 0825, 0827, 0829, 0830, 0832- 0836, 150201- 150206, 1511, 1514, 1519, 1526, 1529, 1530, 160501-160502, 1607																
*030201-0303, 0306, 0327, 0331, 0338, 130701- 130702, 1326, 1349, 1402, 1406, 1409, 1413, 1418, 1419, 1441, 1447, 1448, 1451, 1480, 1481, 1483														14		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: **43F**

Lot-specific information

90	95	180	115	135	115	120	155	110	120	85	85	100	100	85	75	Length of spec. PCR product
		225		175	180		255									
					215											
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
														31		*1156
							24							31		*1157
								25					30	31		*1158
				21				25	26		28		30			*1159
													30	31		*1160
													30			*1161
									26				30			*1162
			20								28		30			*1163
17		19														*1164
					22						28					*116501-116502
													30			*1166
17													30	31		*1167
										27						*1168
					22											*1169
		19									28					*1170
									27			29				*0103, 0414, 1367
																*0115, 0438, 07010101-070103, 0703-0715, 080302, 0814, 0815, 0818, 0819, 0823, 0825, 0827, 0829, 0830, 0832- 0836, 150201- 150206, 1511, 1514, 1519, 1526, 1529, 1530, 160501-160502, 1607
												29				*030201-0303, 0306, 0327, 0331, 0338, 130701- 130702, 1326, 1349, 1402, 1406, 1409, 1413, 1418, 1419, 1441, 1447, 1448, 1451, 1480, 1481, 1483
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Lot No.: **43F**

Lot-specific information

Length of spec.	175	175	65	200	85	80	125	125	85	65	200	95	70	145	60	110
PCR product										85	255	185	105		105	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*0304, 0321, 0330, 1465																
*0308	1							8	9	10			13			
*0310																
*0317, 1459														14		
*0320											11					
*0326														14		16
*0333																16
*0335, 140501-140503, 1414, 1420, 142301-142302, 1436, 1443-1445, 1456														14		
*0337																
*0402, 0437, 1317, 1457, 1510																
*0412, 0418, 0425, 0436, 0453, 0458, 080401, 080404, 0806, 0810, 0812, 0822, 120101-120102, 120302, 1205-1212, 1214, 1217, 1415, 1473, 1521																
*0415			3		5			8								
*0461					5		7			10						
*0817, 1216, 130501-130502, 131401-131403, 1321, 1346, 135001-135002, 1609																
*0820														14		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: **43F**

Lot-specific information

90	95	180	115	135	115	120	155	110	120	85	85	100	100	85	75	Length of spec. PCR product
		225		175	180		255									
					215											
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
20																*0304, 0321, 0330, 1465
	18			21				25	26							*0308
19																*0310
							24									*0317, 1459
				24												*0320
			20													*0326
20																*0333
			20													*0335, 140501- 140503, 1414, 1420, 142301- 142302, 1436, 1443-1445, 1456
				24												*0337
										28						*0402, 0437, 1317, 1457, 1510
												31				*0412, 0418, 0425, 0436, 0453, 0458, 080401, 080404, 0806, 0810, 0812, 0822, 120101- 120102, 120302, 1205-1212, 1214, 1217, 1415, 1473, 1521
				21										31		*0415
				21												*0461
																*0817, 1216, 130501-130502, 131401-131403, 1321, 1346, 135001-135002, 1609
19												31				*0820
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Lot No.: **43F**

Lot-specific information

Length of spec.	175	175	65	200	85	80	125	125	85	65	200	95	70	145	60	110
PCR product										85	255	185	105		105	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*0828, 120201-120203, 1213, 1215, 131101-131102, 1342																
*0831		2	3		5			8								
*1204		2			5			8								
*130101-130103, 1304, 1310, 1315, 1322, 1327, 1328, 1332, 1335, 1351, 1352, 1359, 1361, 1364, 1369, 1379, 1380				4												
*130201-130203, 1323, 1331, 1334, 1339, 1341, 1373				4												
*130301-130302, 1333, 1336-1338, 1365				4										14		
*1306, 1377				4												
*1308, 1319, 1372, 1376, 1384				4										14		
*1309																
*1312, 1385				4										14		
*1313, 1463, 1467				4										14		
*1316				4												
*1318																
*1320, 1371, 1378				w							11					
*1324, 1354, 1375																
*1325, 1356											11					
*1329				w							11					
*1330, 1366, 1382				4												
*1332, 1340, 1348, 1353, 1370				4										14		
*1343				w							11					
*1345				4												
*1347, 1355, 1425, 1427, 1458														14		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: **43F**

Lot-specific information

90	95	180	115	135	115	120	155	110	120	85	85	100	100	85	75	Length of spec. PCR product
		225		175	180		255									
					215											
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
													30	31		*0828, 120201-120203, 1213, 1215, 131101-131102, 1342
														31		*0831
														31		*1204
											28					*130101-130103, 1304, 1310, 1315, 1322, 1327, 1328, 1332, 1335, 1351, 1352, 1359, 1361, 1364, 1369, 1379, 1380
										27			29			*130201-130203, 1323, 1331, 1334, 1339, 1341, 1373
										27			29			*130301-130302, 1333, 1336-1338, 1365
														31		*1306, 1377
			20								28					*1308, 1319, 1372, 1376, 1384
					22											*1309
												29				*1312, 1385
		19										29				*1313, 1463, 1467
																*1316
		19											30	31		*1318
											28					*1320, 1371, 1378
											28		30			*1324, 1354, 1375
																*1325, 1356
										27						*1329
												29				*1330, 1366, 1382
											28					*1332, 1340, 1348, 1353, 1370
		19									28					*1343
		19								27			29			*1345
		19														*1347, 1355, 1425, 1427, 1458
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Lot No.: 43F

Lot-specific information

Length of spec.	175	175	65	200	85	80	125	125	85	65	200	95	70	145	60	110
PCR product										85	255	185	105		105	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*1357, 1383, 1387				4												
*1358				4							11			14		
*1360											11			14		
*1362																16
*1363																
*1368				4												16
*1374				w												
*1381				4							11			14		
*140101-140103, 140701-1408, 1422, 1426, 143201-143202, 1434, 1438, 1439, 1449, 1454, 1455, 1460, 1462, 1470, 1475, 1482														14		
*140301, 1469, 1477											11			14		
*140302											11					
*1411		2			5			8		10						15
*1412											11			14		
*1416				4										14		
*1424														14		
*1429											11			14		
*1435, 1472																
*1437														14		
*1440											11			14		
*1453																
*1474											11			14		
*1478				4										14		
DRB1 allele ⁴																
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
DRB3*0211, DRB5*0107, DRB5*0111, DRB5*0203																
DRB3*0218							7			10		12				
DRB5*0113			3		5		7									
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: **43F**

Lot-specific information

90	95	180	115	135	115	120	155	110	120	85	85	100	100	85	75	Length of spec. PCR product
		225		175	180		255									
					215											
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
			20								28					*1357, 1383, 1387
							24							31		*1358
			20													*1360
					22								30			*1362
										27			30			*1363
											28					*1368
										27		29				*1374
							24									*1381
		19	20													*140101-140103, 140701-1408, 1422, 1426, 143201-143202, 1434, 1438, 1439, 1449, 1454, 1455, 1460, 1462, 1470, 1475, 1482
		19														*140301, 1469, 1477
		19														*140302
17								25	26						32	*1411
		19												31		*1412
		19	20								28					*1416
					22							29				*1424
							24									*1429
		19	20													*1435, 1472
			20		22											*1437
		19	20													*1440
		19											30			*1453
		19	20											31		*1474
		19												31		*1478
																DRB1 allele ⁴
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
												29				DRB3*0211, DRB5*0107, DRB5*0111, DRB5*0203
	18															DRB3*0218 DRB5*0113
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Lot No.: **43F**

Lot-specific information

¹The internal positive control primer pairs amplify segments of the human growth hormone gene. The two different control primer pairs give rise to either an internal positive control band of 430 base pairs, for most wells, or a band of 515 base pairs, for some wells.

Well number 1 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DRB1*11 subtyping.

In addition, wells number 5, 6, 11, 18, 20, 25, 29, 30 and 31 contain the primer pair giving rise to the longer, 515 bp, internal positive control band in order to allow kit identification.

²The nucleotide position, in the 1st, 2nd or 3rd exons, matching the specificity-determining 3'-end of the primer is given. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

³The nucleotide position, in the 2nd or 3rd exons, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

⁴The nucleotide sequence of the DRB1*111002 allele is not yet retrievable. The DRB1*1171 allele is not included in the kit.

⁵Primer mix 10: Specific PCR fragment of 65 bp in the DRB1*1113, 1117, 1126, 1134, 1152, and the 0461, 1411 and DRB3*0218 alleles. Specific PCR fragment of 85 bp in the DRB1*1107, 1123, 1125, 1145, 1153^{weakly}, 1155, 1164, 1167 and the 0308 alleles.

⁸Primer mix 11: Specific PCR fragment of 200 bp in the DRB1*110801-110802, 1136, 1142, 1164, 1168 and the 1320, 1325, 1329, 1343, 1356, 1360, 1371, 1378, 140301-140302, 1412, 1440, 1469, 1474 and 1477 alleles. Specific PCR fragment of 255 bp in the DRB1*110601-110602, 1121, 1147, 1157 and the 0320, 1358, 1381 and 1429 alleles.

⁹Primer mix 12: Specific PCR fragment of 95 bp in the DRB1*1161 allele. Specific PCR fragment of 185 bp in the DRB1*1130 and the DRB3*0218 alleles.

¹⁰Primer mix 13: Specific PCR fragment of 70 bp in the DRB1*1160 allele. Specific PCR fragment of 105 bp in the DRB1*1109, 1116, 1120, 1128, 1140, 1158, 1159 and the 0308 alleles.

¹¹Primer mix 15: Specific PCR fragment of 60 bp in the DRB1*1166 allele. Specific PCR fragment of 105 bp in the DRB1*1110, 111201-111202, 1113, 1117, 1152, 1166 and the 1411 alleles.

¹²Primer mix 19: Specific PCR fragment of 180 bp in the DRB1*1131, 1152 and the 0310, 1343, 1345, 140101-140103, 140701-1408, 1416, 1422, 1425, 1426, 143201-143202, 1434, 1435, 1438, 1439, 1449, 1453-1455, 1463, 1469, 1470, 1472, 1474, 1475 and 1482 alleles. Specific PCR fragment of 225 bp in the DRB1*1123, 1125, 1132, 1145, 1155, 1164, 1170 and the 0820, 1313, 1318, 1347, 1355, 140301-140302, 1412, 1427, 1440, 1458, 1460, 1462, 1467, 1477 and 1478 alleles.

¹³Primer mix 21: Specific PCR fragment of 135 bp in the DRB1*1159 and the 0308 alleles. Specific PCR fragment of 175 bp in the DRB1*1122 and the 0415 and 0461 alleles.

¹⁴Primer mix 22: Specific PCR fragment of 115 bp in the DRB1*1115 and the 1362 alleles. Specific PCR fragment of 180 bp in the DRB1*1133, 1135 and 116501-116502 alleles. Specific PCR fragment of 215 bp in DRB1*1169 and 1309, 1424 and 1437 alleles.

¹⁵Primer mix 24: Specific PCR fragment of 155 bp in the DRB1*1139, 1143, 1150 and the 0317, 0337 and 1459 alleles. Specific PCR fragment of 255 bp in the DRB1*110601-110602, 1121, 1147, 1157 and the 0320, 1358, 1381 and 1429 alleles.

'w', may be weakly amplified.

Lot No.: **43F**

Lot-specific information

CELL LINE VALIDATION SHEET																				
DRB1*11 SSP subtyping kit																				
				Well																
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
				Prod. No.:	200854601	200514002	200514003	200514004	200514005	200627306	200514007	200514008	200854609	200514010	200514011	200740012	200740013	200854614	200740015	200514016
IHWC cell line		DRB1																		
1	9001	SA	*0101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280	LK707	*1502	*0405	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011	E4181324	*1502		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275	GU373	*0301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009	KAS011	*1601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353	SM	*0407	*0803	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020	QBL	*0301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9007	DEM	*0401	*1602	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026	YAR	*0402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107	LKT3	*0405		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051	PITOUT	*0701		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052	DBB	*0701		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9067	BTB	*0801		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071	OLGA	*0802		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075	DKB	*0901		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037	SWEIG007	*1101		+	-	+	-	+	-	+	-	-	-	-	-	-	-	-	-
17	9008	WILJON	*1501		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257	32367	*0901	*1101	+	-	+	-	+	-	+	-	-	-	-	-	-	-	-	-
19	9038	BM16	*1201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059	SLE005	*1302		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
21	9064	AMALA	*1402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
22	9056	KOSE	*1302	*1401	-	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-
23	9124	IHL	*0803	*1414	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
24	9035	JBUSH	*1101		+	-	+	-	+	-	+	-	-	-	-	-	-	-	-	-
25	9049	IBW9	*0701		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285	WT49	*0301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191	CH1007	*0405	*1001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320	BEL5GB	*0416	*0701	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050	MOU	*0701		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021	RSH	*0302		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
31	9019	DUCAF	*0301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297	HAG	*1303		-	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-
33	9098	MT14B	*0404		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104	DHIF	*1101		+	-	+	-	+	-	+	-	-	-	-	-	-	-	-	-
35	9302	SSTO	*0403		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024	KT17	*0403	*0406	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065	HHKB	*1301		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
38	9099	LZL	*1402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
39	9315	CML	*0301	*0401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134	WHONP199	*0701	*0901	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055	H0301	*1302		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
42	9066	TAB089	*0803		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076	T7526	*0901		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057	TEM	*1401		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
45	9239	SHJO	*0701		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013	SCHU	*1501		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045	TUBO	*1104	*1201	+	-	+	-	+	-	+	-	-	-	-	-	-	-	-	-
48	9303	TER-ND	*0103		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Lot No.: **43F**

Lot-specific information

CELL LINE VALIDATION SHEET																			
DRB1*11 SSP subtyping kit																			
				Well															
				17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
				Prod. No.:															
				200514017	200740018	200514019	200854620	200740021	200854622	200514023	200854624	200854625	200514026	200514027	200514028	200854629	200514030	200854631	200740032
	IHWC cell line		DRB1																
1	9001 SA		*0101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707		*1502	*0405	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
3	9011 E4181324		*1502		-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
	9275 GU373		*0301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011		*1601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM		*0407	*0803	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
7	9020 QBL		*0301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9007 DEM		*0401	*1602	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR		*0402		-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
10	9107 LKT3		*0405		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT		*0701		-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
12	9052 DBB		*0701		-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
13	9067 BTB		*0801		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA		*0802		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB		*0901		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007		*1101		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
17	9008 WILJON		*1501		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367		*0901	*1101	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
19	9038 BM16		*1201		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
20	9059 SLE005		*1302		-	-	-	-	-	-	-	-	-	+	-	+	-	-	-
21	9064 AMALA		*1402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE		*1302	*1401	-	-	+	+	-	-	-	-	-	-	+	-	+	-	-
23	9124 IHL		*0803	*1414	-	-	-	+	-	-	-	-	-	-	-	+	-	-	-
24	9035 JBUSH		*1101		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
25	9049 IBW9		*0701		-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
26	9285 WT49		*0301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007		*0405	*1001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB		*0416	*0701	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
29	9050 MOU		*0701		-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
30	9021 RSH		*0302		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9019 DUCAF		*0301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG		*1303		-	-	-	-	-	-	-	-	-	+	-	+	-	-	-
33	9098 MT14B		*0404		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF		*1101		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
35	9302 SSTO		*0403		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17		*0403	*0406	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB		*1301		-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
38	9099 LZL		*1402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML		*0301	*0401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134 WHONP199		*0701	*0901	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
41	9055 H0301		*1302		-	-	-	-	-	-	-	-	-	+	-	+	-	-	-
42	9066 TAB089		*0803		-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
43	9076 T7526		*0901		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM		*1401		-	-	+	+	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO		*0701		-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
46	9013 SCHU		*1501		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO		*1104	*1201	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-
48	9303 TER-ND		*0103		-	-	-	-	-	-	-	-	-	+	-	+	-	-	-

Lot No.: 43F

Lot-specific information

CERTIFICATE OF ANALYSIS

Olerup SSP[®] DRB1*11 SSP

Product number: 101.115-24u/03 – without Taq pol.
Lot number: 43F
Expiry date: 2010-December-01
Number of tests: 24 tests – Product No. 101.115-24u
3 tests – Product No. 101.115-03u
Number of wells per test: 32

Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2008-546-01	13	2007-400-13	25	2008-546-25
2	2005-140-02	14	2008-546-14	26	2005-140-26
3	2005-140-03	15	2007-400-15	27	2005-140-27
4	2005-140-04	16	2005-140-16	28	2005-140-28
5	2005-140-05	17	2005-140-17	29	2008-546-29
6	2006-273-06	18	2007-400-18	30	2005-140-30
7	2005-140-07	19	2005-140-19	31	2008-546-31
8	2005-140-08	20	2008-546-20	32	2007-400-32
9	2008-546-09	21	2007-400-21		
10	2005-140-10	22	2008-546-22		
11	2005-140-11	23	2005-140-23		
12	2007-400-12	24	2008-546-24		

The specificity of each primer solution of the kit has been tested against 48 well characterized cell line DNAs.

No DNAs carrying the alleles to be amplified by primer solutions 2, 9 to 12, 14, 16 to 18, 21 to 26 and 32 were available. The specificities of the primers in primer solutions 2, 9, 10, 11, 12, 14, 17, 18, 21, 24, 25, 26 and 32 were tested by separately adding one or several additional 5'-primer(s), respectively, one or several additional 3'-primer(s). In primer solutions 16, 22 and 32 one of the 3'-primers was not possible to test. In primer solution 23 the 5'-primer was not possible test.

Results: No false positive or false negative amplifications were obtained.

Date of approval: 2009-August-24

Approved by:

Quality Control, Supervisor

Lot No.: **43F**

Lot-specific information

Declaration of Conformity

Product name: *Olerup* SSP® DRB1*11
Product number: 101.115-24u/03
Lot number: 43F

Intended use: DRB1*11 high resolution histocompatibility testing

Manufacturer: *Olerup* SSP AB
Hasselstigen 1
SE-133 33 Saltsjöbaden, Sweden
Phone: +46-8-717 88 27
Fax: +46-8-717 88 18

We, *Olerup* SSP AB, hereby declare that this product, to which this Declaration of Conformity relates is in conformity with the following Standard(s) and other normative document(s) ISO 9001:2000 and ISO 13485:2003, following the provisions of the 98/79/EC Directive on *in vitro* diagnostic medical devices, Annex II List B, conformity assessed using Annex IV, as transposed into the national laws of the Member States of the European Union.

The Technical Documentation File is maintained at *Olerup* SSP AB, Hasselstigen 1, SE-133 33 Saltsjöbaden, Sweden.

The Authorized Representative located within the Community is: *Olerup* SSP AB.

Notified Body: Lloyd's Register Quality Assurance Limited, Hiramford, Middlemarch Office Village, Siskin Drive, Coventry CV3 4FJ, United Kingdom. (Notified Body number: 0088.)

Saltsjöbaden, Sweden
2009-August-24

Olle Olerup
Managing Director

Lot No.: **43F**

Lot-specific information

Lot No.: **43F**

Lot-specific information

Lot No.: **43F**

Lot-specific information

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For information on *Olerup* SSP distributors worldwide, contact **Olerup GmbH**.