

Olerup SSP® HLA-B*40

Product number:	101.523-24u/03u – without <i>Taq</i> pol.
Lot number:	86G
Expiry date:	2012-March-01
Number of tests:	24 tests – Product No. 101.523-24u 3 tests – Product No. 101.523-03u
Number of wells per test:	72
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. 86G.

CHANGES COMPARED TO THE PREVIOUS *OLERUP SSP*® HLA-B*40 Lot

The HLA-B*40 specificity and interpretation tables have been updated for the HLA-B alleles described since the previous *Olerup SSP*® HLA-B*40 lot was made (Lot No. 22F).

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

Well	5'-primer	3'-primer	rationale
3	-	Added	Primer added for the B*400205 allele.
46	-	Modified	Modified 3'-primer to improve specificity.
56	Added	Added	Primer pair added for the B*4097 allele.
69	Added	Added	Primer pair added for the B*4094 allele. Exchanged positive control primer pair.
72	Exchanged	Exchanged	New primer pair for the B*4095 allele.

Change in revision R01 compared to R00:

1. Primer mix 70 does not amplify the following alleles: B*4003, 4020, 4052, 4059 and 4060 and the B*1304, 1310, 1326, 1546, 1553, 9506, 3546-3547, 3563, 4417, 4443, 4509 and 4904-4905 and the Cw*0769 alleles.

This has been corrected in the Specificity and Interpretation Tables.

PRODUCT DESCRIPTION

HLA-B*40 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the B*4001 to B*4099 alleles.

PLATE LAYOUT

Each test consists of 72 PCR reactions in a 96 well cut PCR plate. Wells 73 to 96 are empty.

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
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72
empty	empty	empty	empty	empty	empty	empty	empty
empty	empty	empty	empty	empty	empty	empty	empty
empty	empty	empty	empty	empty	empty	empty	empty

The 96 well PCR plate is marked with 'HLA-B*40' in silver/gray ink.

Well No. 1 is marked with the Lot No. '86G'.

A faint row of numbers is seen between wells 1 and 2 or wells 7 and 8 of the PCR trays. These stem from the manufacture of the trays, and should be disregarded.

The PCR plates are covered with a PCR-compatible foil.

INTERPRETATION

The interpretation of HLA-B*40 SSP subtypings will be influenced by many other HLA-B alleles when present on the other haplotype. In addition, the Cw*0206 allele will be amplified by primer mix 5, the Cw*0223 allele will be amplified by primer mix 5, 20, 26 and 66, the HLA-Cw*0305, 0325 and 0327 alleles will be amplified by primer mixes 4, 8 and 13, the Cw*0334 allele will be amplified by primer mix 33, the Cw*0738 allele will be amplified by primer mixes 16, 31, 34 and 66, the Cw*0746 allele will be amplified by primer mix 39, the Cw*0781 allele will be amplified by primer mix 11, the Cw*0808 alleles by primer mixes 6 and 29, the Cw*1225 allele will be amplified by primer mix 23, the Cw*1524 allele will be amplified by primer mix 65, and the Cw*17 alleles faintly by primer mix 7.

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Lot-specific information

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UNIQUELY IDENTIFIED ALLELES

All the HLA-B*40 alleles, i.e. **B*4001 to B*4099**, recognized by the HLA Nomenclature Committee in January 2010¹ will give rise to unique amplification patterns by the primers in the HLA-B*40 subtyping kit.

The HLA-B*40 subtyping kit cannot distinguish the B*400101- B*400105, B*400107 and B*400108 alleles or the B*400201- B*400203 and B*400205 - B*400209 alleles or the B*40060101- B*400602 alleles or the B*401402 and B*401403 alleles.

¹HLA-B alleles listed on the IMGT/HLA web page 2010-January-15, release 2.28.0, www.ebi.ac.uk/imgt/hla.

RESOLUTION IN HOMO- AND HETEROZYGOTES

The 97 phenotypically different HLA-B*40 alleles give rise to 101 amplification patterns, which can be combined in 5 151 homozygous and heterozygous combinations. 837 of these genotypes do not give rise to unique amplification patterns. The different sizes of the PCR products by primer mixes 16, 20, 37, 44, 45, 48, 56, 60 and 65 were not considered in these calculations.

+++++---	-----+	+--+---+	---+---+	-----	-----+	-----	-----	-----+	4024,4061 = 4024,4073
+++++---	-----+	+--+---+	---+---+	-----+	-----	-----	-----	-----+	4018,4060 = 4024,4060
+++++---	-----+	+--+---+	---+---+	-----	-----+	-----	-----	-----+	4018,4061 = 4018,4073
+++++---	-----+	+--+---+	---+---+	-----+	-----	-----	-----	-----+	4009,4052 = 4018,4052
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4009,4033 = 4018,4033
+++++---	-----+	+--+---+	---+---+	-----	-----+	-----	-----	-----+	4027,4061 = 4027,4073
+++++---	-----+	+--+---+	---+---+	-----	-----+	-----	-----	-----+	4005,4061 = 4005,4073
+++++---	-----+	+--+---+	---+---+	-----	-----+	-----	-----	-----+	4008,4047 = 4013,4025
+++++---	-----+	+--+---+	---+---+	-----	-----+	-----	-----	-----+	4009,4061 = 4009,4073
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4019,4043 = 4047,4050
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4019,4055 = 4047,4056
+++++---	-----+	+--+---+	---+---+	-----	-----+	-----	-----	-----+	4019,4061 = 4019,4073
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4019,4088 = 4047,4082
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4019,4049 = 4040,4047
+++++---	-----+	+--+---+	---+---+	-----	-----+	-----	-----	-----+	4029,4061 = 4029,4073
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4040,4043 = 4049,4050
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4043,4056 = 4050,4055
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4050,4061 = 4050,4073
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4037,4043 = 4050,4076
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4043,4082 = 4050,4088
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4002,4043 = 4043,4050
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4035,4061 = 4035,4073
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4040,4055 = 4049,4056
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4040,4088 = 4049,4082
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4061,4078 = 4073,4078
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4056,4061 = 4056,4073
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4037,4055 = 4056,4076
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4055,4082 = 4056,4088
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4002,4055 = 4055,4056
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4057,4061 = 4057,4073
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4037,4061 = 4037,4073
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4061,4082 = 4073,4082
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4061,4085 = 4073,4085
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4061,4090 = 4073,4090
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4002,4061 = 4002,4073
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4061,4089 = 4073,4089
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4061,4091 = 4073,4091
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4037,4088 = 4076,4082
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4002,4076 = 4037,4076
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4002,4088 = 4082,4088
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4039,4061 = 4039,4073
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4003,4061 = 4003,4073
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4044,4061 = 4044,4073
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4020,4038 = 4052,4074
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4020,4061 = 4020,4073
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4020,4074 = 4033,4074
+++++---	-----+	+--+---+	---+---+	-----	-----	-----	-----	-----+	4061,4071 = 4071,4073

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Lot-specific information

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+++-----	+-----	++-----	---+-----	-----+	-----	-----	-----	+-----	4006,4060 = 4060,4070
+++-----	+-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4061,4070 = 4070,4073
+++-----	+-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4006,4074 = 4053,4074
+++-----	+-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4061,4086 = 4073,4086
+++-----	+-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4006,4061 = 4006,4073
+++-----	+-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4026,4061 = 4026,4073
+++-----	+-----	++-----	---+-----	-----	-----+	-----	-----	+-----	400106,4011 =
400106,4026 = 4026,4074									
+++-----	-----	++-----	---+-----	-----+	-----	-----	-----	+-----	4004,4060 = 4060,4064
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4004,4061 = 4004,4073
+++-----	-----	++-----	---+-----	-----+	-----	-----	-----	+-----	4028,4061 = 4028,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4061,4064 = 4064,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4011,4061 = 4011,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4061,4074 = 4073,4074
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4063,4074 = 4074,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4032,4061 = 4032,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4031,4061 = 4031,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4031,4063 = 4031,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4015,4061 = 4015,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4016,4061 = 4016,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4061,4080 = 4073,4080
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4045,4061 = 4045,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4063,4080 = 4080,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4045,4063 = 4045,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4059,4061 = 4059,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4036,4059 = 4048,4059
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4042,4059 = 4059,4060
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4059,4063 = 4059,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4033,4059 = 4052,4059
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4033,4060 = 4052,4060
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4052,4061 = 4052,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4036,4052 = 4048,4052
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4033,4038 = 4038,4052
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4033,4061 = 4033,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4052,4063 = 4052,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4033,4052 = 4052,4052
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4033,4063 = 4033,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4012,4053 = 4012,4093
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4061,4093 = 4073,4093
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4046,4053 = 4046,4093
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4012,4063 = 4012,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4046,4061 = 4046,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4046,4063 = 4046,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4061,4083 = 4073,4083
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4053,4061 = 4053,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4007,4063 = 4007,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4061,4077 = 4073,4077
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4063,4077 = 4077,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	407201,4087 =
									4077,4087
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4061,4087 = 4073,4087
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4063,4087 = 4087,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4025,4061 = 4025,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4025,4063 = 4025,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4010,4063 = 4010,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4047,4061 = 4047,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4047,4063 = 4047,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	401401,4023 =
									4023,407201
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	401401,4061 =
									401401,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	401401,4063 =
									401401,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4061,407201 =
									407201,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4063,407201 =
									407201,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	400106,4061 =
									400106,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	400106,4063 =
									400106,4092
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4060,4061 = 4060,4073
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4036,4060 = 4048,4060
+++-----	-----	++-----	---+-----	-----	-----+	-----	-----	+-----	4060,4063 = 4060,4092

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++-----	-----	++-----	---+---++	-----+	-----	-----	-----	-----+--	4042,4060 = 4060,4060
++-----	-----	++-----	---+---++	-----	-----+	-----	-----	-----+	4023,4061 = 4023,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	++-----	4014,4023 =
									4023,407202
++-----	-----	++-----	---+---++	-----	-----+	-----	-----	++-----	4014,4061 = 4014,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	++-----	4014,4063 = 4014,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4021,4063 = 4021,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4034,4061 = 4034,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4034,4063 = 4034,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4043,4061 = 4043,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4043,4063 = 4043,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4022N,4061 =
									4022N,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4022N,4063 =
									4022N,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4038,4061 = 4038,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4036,4038 = 4038,4048
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4038,4063 = 4038,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4048,4061 = 4048,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4048,4063 = 4048,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4036,4048 = 4048,4048
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4030,4061 = 4030,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4030,4063 = 4030,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4042,4061 = 4042,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4049,4063 = 4049,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4051,4061 = 4051,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4054,4061 = 4054,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4054,4063 = 4054,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4055,4061 = 4055,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4055,4063 = 4055,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4036,4061 = 4036,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4061,4076 = 4073,4076
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4061,4062 = 4062,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4061,4063 = 4061,4092
									= 4063,4073 =
									4073,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4061,4065 = 4065,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4061,4066 = 4066,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4061,4067 = 4067,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4061,4069 = 4069,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4061,4079 = 4073,4079
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4061,4081 = 4073,4081
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4061,4088 = 4073,4088
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4061,4084 = 4073,4084
++-----	-----	++-----	---+---++	-----	-----	-----	-----	++-----	4061,407202 =
									407202,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4061,4073 = 4073,4073
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4036,4063 = 4036,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4063,4076 = 4076,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4062,4063 = 4062,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4063,4065 = 4065,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4063,4066 = 4066,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4063,4069 = 4069,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4063,4079 = 4079,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4063,4081 = 4081,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4063,4088 = 4088,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4063,4084 = 4084,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	++-----	4063,407202 =
									407202,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4042,4063 = 4042,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4063,4063 = 4063,4092
++-----	-----	++-----	---+---++	-----	-----	-----	-----	-----	4010,4010 = 4010,4049
+++++---	-----	+++++---	---+---++	-----	-----	-----	-----	+++++---	4003,4016 = 4027,4032
+++++---	-----	+++++---	---+---++	-----	-----	-----	-----	+++++---	4002,4003 = 4003,4027
									= 4018,4027
+++++---	-----	+++++---	---+---++	-----	-----	-----	-----	+++++---	4003,4009 = 4003,4018
+++++---	-----	+++++---	---+---++	-----	-----	-----	-----	+++++---	4006,4024 = 4018,4070
									= 4024,4053 =
									4024,4070
+++++---	-----	+++++---	---+---++	-----	-----	-----	-----	+++++---	4006,4018 = 4018,4053
+++++---	-----	+++++---	---+---++	-----	-----	-----	-----	+++++---	4009,4044 = 4018,4044
+++++---	-----	+++++---	---+---++	-----	-----	-----	-----	+++++---	4018,4068 = 4024,4068
+++++---	-----	+++++---	---+---++	-----	-----	-----	-----	+++++---	4009,4059 = 4018,4059
									= 4024,4059

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++++--	---+--	++-+--	-----	-----	-----	-----	++-----	-----	4009,4031 = 4018,4031
++++--	---+--	++-+--	---+--	-----	-----	-----	-----	++-----	4004,4018 = 4004,4024
									= 4024,4064
++++--	---+--	++-+--	---+--	-----	-----	-----	-----	++-----	4018,4028 = 4024,4028
++++--	---+--	++-+--	-----	-----	-----	-----	-----	++-----	4009,4024 = 4018,4024
									= 4024,4024
++++--	---+--	++-+--	---+--	-----	-----	-----	-----	++-----	4002,4032 = 4016,4018
++++--	---+--	++-+--	---+--	-----	-----	-----	-----	++-----	4009,4032 = 4018,4032
++++--	---+--	++-+--	---+--	-----	-----	-----	-----	++-----	4009,4020 = 4018,4020
++++--	---+--	++-+--	-----	-----	-----	-----	-----	++-----	4009,4018 = 4018,4018
+++-+	+-----	-----	++-+	-----	-----	-----	-----	++-----	4006,4027 = 4027,4053
+++-+	+-----	-----	++-+	-----	-----	-----	-----	++-----	4002,4027 = 4027,4027
+++-+	+-----	-----	++-+	-----	-----	-----	-----	++-----	4005,4006 = 4005,4053
+++++	-----	-----	++-+	-----	-----	-----	-----	++-----	4002,4071 = 4005,4035
									= 4035,4071
++++--	++-+--	-----	---+--	-----	+	-----	-----	++-----	4006,4008 = 4008,4053
++++--	++-+--	-----	---+--	-----	-----	-----	-----	++-----	4006,4013 = 4013,4053
++++--	++-+--	-----	---+--	-----	-----	-----	-----	++-----	4006,4009 = 4009,4053
++++--	++-+--	-----	---+--	-----	-----	-----	-----	++-----	4006,4019 = 4019,4053
++++--	++-+--	-----	---+--	-----	-----	-----	-----	++-----	4006,4029 = 4029,4053
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4050 = 4050,4053
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4035 = 4035,4053
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4040 = 4040,4053
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4078 = 4053,4078
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4056 = 4053,4056
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4057 = 4053,4057
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4037 = 4037,4053
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4082 = 4053,4082
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4085 = 4053,4085
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4089 = 4053,4089
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4090 = 4053,4090
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4091 = 4053,4091
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4002,4006 = 4002,4053
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4039 = 4039,4053
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4002,4068 = 4004,4008
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4002,4029 = 4029,4029
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4002,4050 = 4050,4050
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4002,4035 = 4035,4035
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4002,4078 = 4078,4078
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4002,4056 = 4056,4056
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4002,4057 = 4057,4057
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4002,4037 = 4037,4037
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4002,4082 = 4082,4082
++++--	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4002,4090 = 4090,4090
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4003,4006 = 4003,4053
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4059 = 4059,4070
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4020 = 4011,4044
									= 4020,4053
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4044 = 4044,4053
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4004,4059 = 4059,4064
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4071 = 4053,4071
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4068 = 4053,4068
									= 4068,4070
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4026 = 4026,4053
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4004,4006 = 4004,4053
									= 4004,4070 =
									4064,4070
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4028 = 4028,4053
									= 4028,4070
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4070 = 4053,4070
									= 4070,4070
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4064 = 4053,4064
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4011 = 4011,4053
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4086 = 4053,4086
									= 4086,4086
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4075 = 4053,4075
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4006,4006 = 4006,4053
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4004,4068 = 4064,4068
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4004,4028 = 4028,4064
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	4004,4004 = 4004,4064
+++-+	++-+--	-----	++-+	-----	-----	-----	-----	++-----	401401,4032 =
									4032,407201
+++-+	++-+--	-----	++-+	-----	-----	-----	++-----	++-----	401401,4031 =
									4031,407201

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-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-----	++---+--	4014,4032 =
									4032,407202
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-+-----	++---+--	4014,4031 =
									4031,407202
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-+-----	-----+	4031,4045 = 4031,4080
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-----	++-----	4015,4077 = 4016,4077
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-----	++-----	401401,4015 =
									401401,4016 =
									4014,4015 =
									4015,407201 =
									4015,407202 =
									4016,407201
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-+-----	++-----	401401,4080 =
									407201,4080
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-----	++-----	401401,4045 =
									4045,407201
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-----	++-----	4015,4015 = 4015,4016
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-----	++-----	4014,4016 =
									4016,407202
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-+-----	++-----	4014,4080 =
									407202,4080
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-----	++-----	4014,4045 =
									4045,407202
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-+-----	-----	4045,4080 = 4080,4080
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-----	++-----	4053,4093 = 4093,4093
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-----	++-----	4053,4083 = 4083,4083
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-----	++-----	401401,4077 =
									4014,4077
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-----	++-----	407201,4077 =
									407202,4077 =
									4077,4077
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-----	++-----	401401,401401 =
									401401,4014 =
									401401,407201 =
									401401,407202 =
									4014,407201
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-----	++-----	407201,407201 =
									407201,407202
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-----	++-----	4014,4014 =
									4014,407202
-+---+--	-----+	+---+---	-++-+++	-----	-----	-----	-----	-----	4030,4034 = 4034,4034

4001 = 400101-400105, 400107, 400108
4002 = 400201-400203, 400205-400209
4006 = 40060101-400602
4014 = 401402 and 401403

SPECIFICITY TABLE**HLA-B*40 SSP subtyping**

Specificities and sizes of the PCR products of the 72 primer mixes used for HLA-B*40 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-B*40 alleles ³	Other amplified HLA class I alleles ⁴
1	175 bp	800 bp	*400101-400108, 4007, 4010, 4012, 4021-4023, 4025, 4033, 4036, 4038, 4042, 4043, 4046- 4049, 4051, 4052, 4054, 4055, 4060- 4063, 4065-4067, 4069, 4073, 4074, 4076, 4079, 4081, 4084, 4087, 4088, 4092	*9516, 9524, 4431, 4606, 480301, 480302
2	215 bp	1070 bp	*400101-400602, 4009, 4011, 401401-4016, 4018-4020, 4022N-4039, 4042-4048, 4050- 4057, 4059, 4060, 4062-4067, 4069- 4074, 4076-4099	*1323, 1571, 9575, 180101- 1803, 1805, 1806, 1808-1815, 1817N-1824, 1826-1828, 1830-1832, 1834-1842, 1844- 1847, 2718, 2729, 3563, 370101-3720, 4101-4112, 4415, 4418, 4455, 4501-4505, 4507-4511, 490101-4909, 500101-5002, 5004-5009
3⁵	130 bp	1070 bp	*400201-400602, 4008, 4009, 4011, 4013, 4018-4020, 4024, 4026-4029, 4035, 4037, 4039, 4040 ^w , 4044, 4050, 4056, 4057, 4064, 4068, 4070, 4071, 4074, 4075, 4078, 4082, 4085, 4086, 4089-4091, 4094-4099	
4⁵	95 bp	800 bp	*400201-400209, 4005, 4008, 4009, 4013, 4015, 4016, 4018, 4019, 4024,	*070201-0706, 0708, 0710, 0713, 0715, 0716, 0719-0776, 0779-0783, 0785-0799, 080101-0808N, 0810, 0811,

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			4027, 4029, 4031, 4032, 4035, 4037, 4039, 4040, 4045, 4050, 4056-4058, 4078, 4080, 4082, 4085, 4089-4091, 4094, 4097, 4098	0813-0815, 0817-0827, 0829-0834, 0836, 0838-0848, 0850-0854, 1413, 1545, 2707, 2711, 2724, 2732-2734, 2743, 3522, 3531, 3587, 3707, 3709, 3914, 3929, 410201, 410202, 4104, 4110, 4111, 420101-4202, 420501, 420502, 4207, 4208, 4210-4212, 4454, 480101, 480102, 4804-4806, 4808-4813, 4815, 4816, 4818-4820, 5164, 5181, 5504, 5827, 8101-8104N, Cw*0305, Cw*0325, Cw*0327
5	190 bp	800 bp	*4003, 4018, 4020, 4024, 4031-4033, 4044, 4052, 4059, 4098	*070201-070209, 070211-070217, 070219-0704, 0707-0713, 0715, 0716, 071801, 071802, 0721-0723, 0725-0727, 0729, 0730, 0733, 0735-0739, 0741, 0742, 0744-0752, 0754-0759, 0761-0768, 0770-0773, 0775-0777, 0779, 0781-0789, 0791-0795, 0798, 0799, 1326, 1335, 1540, 1547, 1549, 1552, 9514, 9517, 9524, 9538, 1810, 1821, 1835, 2734, 2741, 3515, 3533, 3566, 3586, 3707, 4606, 4808, 5713, 5725, Cw*0206, Cw*0223
6⁵	95 bp	1070 bp	*4003, 4027	*0709, 0711, 0717, 0828, 0835, 0837, 1405, 1507, 1555, 1568, 9526, 1814, 3505, 3551, 3558, 3566, 3572, 3589, 3597, 3819, 3903, 3924, 3937, 4206, 4209, 4612, 4807, 4814, 5314, 5818, Cw*0808
7^{5,7}	105 bp	800 bp	*4012, 4046, 4093	*0727, 0750, 0804, 0817, 0854, 150301-150303, 1547, 1554, 1561, 1562, 1564, 1568, 1569, 1591, 1598, 9503, 9523, 9527, 9531, 9532, 9551, 9556, 9558, 9573, 1837, 2718, 2729, 3803, 390201, 390202, 3908, 391301, 391302, 3923, 3939, 3949, 4211, 4440, 4444, 480101-4805, 4807-4821, 5216, 5518

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8	235 bp	1070 bp	*4005, 4071	*0720, 0724, 0760, 0821, 0825, 1507, 1545, 1555, 1568, 9526, 3505, 3516, 3517, 3522, 3530, 3551, 3558, 3572, 3589, 3597, 4454, 4612, 5164, 5314, 5818, Cw*0305, Cw*0325, Cw*0327
9	160 bp	1070 bp	*40060101-400602, 4044, 4053, 4070, 4075, 4083, 4086, 4093, 4096	*0778, 0784, 2714, 510109, 5110, 512402, 512403, 5411, 7301
10	215 bp	1070 bp	*4007, 4008, 4013, 4068	*180701, 180702, 1829, 2723, 3550, 3584, 3721
11⁵	85 bp	1070 bp	*4077, 4087	*9524, 4814, 5805, Cw*0781
12⁵	95 bp	1070 bp	*4008, 4025, 4068	*9543, 3519, 3547, 4412
13⁵	90 bp	1070 bp	*4003, 4009, 4018, 4024, 4031, 4032, 4098	*070201-0704, 0708-0711, 0713, 0715-0717, 0719-0731, 0733, 0735-0739, 0741-0752, 0754-0768, 0770-0776, 0779, 0781-0783, 0785-0789, 0791-0796, 0798, 0799, 0807, 0828, 0837, 1507, 1545, 1555, 1568, 1814, 1822, 2734, 3505, 3516, 3517, 3530, 3551, 3558, 3566, 3572, 3589, 3597, 3707, 3709, 3929, 4104, 4209, 4454, 4612, 4808, 5314, 5818, Cw*0305, Cw*0325, Cw*0327
14⁵	90 bp	800 bp	*4010	*1546, 9506, 3547, 4112
15	150 bp	800 bp	*4013, 4019, 4047, 4096	*3706, 44020101-440502, 4407, 4410-4439, 4441-4443, 4445, 4447-4456N, 4458N, 4459, 4461N-4474, 4476-4482, 4484-4489, 4491-4499, 47010101, 47010102, 4703-4705, 490101-4902, 4904-4909
16^{5,10}	75 bp, 160 bp	800 bp	*401401, 4015, 407201, 4077	*070213, 1835, 3566, 420501, 420502, 4812, Cw*0738
17^{5,6}	120 bp	800 bp	*400101-400108, 4007, 4010, 4012, 401401-401403, 4021, 4022N, 4025, 4030, 4031, 4033, 4034, 4036,	*0725, 0748, 1835, 2736, 3566, 4108, 420501, 420502, 4431, 4606, 480101, 480102, 480301, 480302, 4806, 4807, 4809-4812, 4814, 4816-4821, 8101-8104N

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			4038, 4042, 4043, 4045-4049, 4052, 4054, 4055, 4059- 4063, 4065, 4066, 4069, 407201- 4074, 4076, 4077, 4079-4081, 4084, 4087, 4088	
18⁵	105 bp	800 bp	*400106, 4026	*070211, 070503, 150102, 1509, 5106, 5159, 5164
19	320 bp	1070 bp	*4004, 4024, 4028, 4059, 4060, 4068, 4070, 4099	*0712, 0778, 0784, 130101- 1304, 1306-1309, 1311-1320, 132201-1323, 1325-1334, 1336, 1516, 1520, 1534, 1542, 1562, 1567, 1585, 1586, 1595, 9537, 1822, 2714, 350101- 3511, 3513-3515, 3518-3521, 3523-3530, 3533-3538, 3540N-3542, 3545-3550, 3552-3558, 3560, 3562-3566, 356801-3572, 3574-3578, 3580-3585, 3588-3598, 4104, 4107, 4410, 4415, 4418, 4448, 4501-4511, 4611, 4618, 480201, 480202, 4817, 490101-4909, 500101, 5002, 5005-5009, 5115, 5156, 530101-5306, 530801-5321, 5401-5405N, 5407, 5408N, 5410-5419, 550101-550105, 550201-5503, 5505, 5507, 5509-5513, 5515, 5516, 5518- 5537, 5539, 560101-5602, 5607-5611, 5613-5617, 5619N, 5620, 5622-5626, 5705, 580101-5802, 5804- 5807, 5809, 5811-5819, 5821- 5826, 5828, 5901-5905, 8201- 8203
20^{5,11}	135 bp, 285 bp	1070 bp	*401401-4016, 4023, 4031, 4032, 4045, 4080, 4098	*070201-071802, 0720-0732, 0734-0739, 0741-0752, 0754- 0759, 0761-0799, 9538, 1835, 3566, 3707, 4108, 420501, 420502, 480101, 480102, 4805-4812, 4814-4816, 4818- 4820, 8101-8104N, Cw*0223
21^{5,6}	145 bp	800 bp	*4021	*1309, 15010101-150104, 150106-150204, 1504-1508,

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				151101-1512, 1514, 1515, 1519-1521, 152501-1528, 1530-1535, 153801-1540, 1542, 1544, 1545, 1548, 1550, 1555-1558, 1560, 1563, 1565, 1566, 1570, 1571, 1573, 1575- 1579N, 1581-1586, 1588, 1592, 1594N, 1596, 1597, 9501, 9502, 9504, 9505, 9507, 9509-9513, 9516-9518, 9520- 9522, 9525, 9526, 9528, 9529, 9535-9542, 9544-9550, 9552, 9554, 9555, 9559, 9560, 9563- 9567, 9569-9572, 9574, 9575, 9578, 9581N-9585, 3546, 460101-4603, 4605-4622, 5535, 5712
22	235 bp	800 bp	*400201-4003, 4008, 4009, 4013, 4015, 4016, 4018, 4019, 4024, 4027, 4029, 4031, 4032, 4035, 4037, 4040, 4045, 4050, 4056- 4058, 4078, 4080, 4082, 4085, 4089- 4091, 4094, 4097, 4098	*070201-0706, 0708-0711, 0713, 0715-0717, 0721-0723, 0725-0730, 0732, 0733, 0735- 0742, 0744-0759, 0761-0776, 0779-0783, 0785-0799, 0840, 2707, 2711, 2724, 2732-2734, 2743, 3531, 3566, 3707, 480101, 480102, 4804-4816, 4818-4820, 5181, 5827, 8101- 8104N
23⁵	95 bp	800 bp	*4029	Cw*1225
24	165 bp	1070 bp	*4034	
25⁵	125 bp	1070 bp	*4043, 4050	*4490, 4506
26⁵	120 bp	1070 bp	*4015, 4016, 4023, 4032, 4098	*070201-071802, 0720-0724, 0726-0732, 0734-0739, 0741- 0747, 0749N, 0750, 0752, 0754-0759, 0761-0799, 9538, 3707, 4805, 4808, 4815, Cw*0223
27	180 bp	800 bp	*4022N	
28	335 bp	1070 bp	*400101-400108, 4004, 4007, 4010- 4012, 401401- 401403, 4020- 4023, 4025, 4026, 4028, 4033, 4036, 4038, 4042, 4043, 4046-4049, 4051, 4052, 4054, 4055,	*0707, 0712, 0714, 071801, 071802, 0777, 081201- 081203, 0816, 0849, 130101- 130103, 1306, 1307N, 1310- 1313, 1317, 1320-1323, 1325, 1326, 1328, 1329, 1336, 1401- 1404, 140601-1412, 1414- 1418, 15010101-150104, 150106-150303, 150501-1506,

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			4059-4069, 407201-4074, 4076, 4077, 4079, 4081, 4084, 4087, 4092, 4099	1508-1515, 15170101-1521, 1523-1540, 1543, 1544, 1546- 1554, 1556-1558, 1560-1566, 1569-1582, 1584-1594N, 1596-1599, 9501-9511N, 9513-9517, 9519-9525, 9527, 9528, 9531-9536, 9538-9540, 9542-9554, 9556-9578, 9581N-9586, 180101-180108, 1803-1813, 1815, 1817N- 1821, 1823N-1826, 1828- 1838, 1840-1847, 2719, 2721, 2730, 350101-350403, 3506- 3515, 3518-3521, 3523, 352401, 3525-3529, 3532- 3536, 3538-3550, 3552-3557, 3559, 3561-3565Q, 3567- 3571, 3574-3586, 3588, 3590- 3596, 3598, 3599, 370101- 370107, 3703N-3706, 3708, 3710-3721, 380101-3818, 3820, 3821, 39010101, 39010102L, 390103-390106, 390108-390202, 3904-390502, 3907-391302, 3915, 3917- 3920, 3922, 3923, 3925N- 3928, 3930-3932, 3935, 3936, 3938Q-3949, 3951-3956, 410301, 410302, 4108, 4213, 44020101-4414, 4416, 4417, 4419N, 4421-4446, 4448- 4453, 4455-4469, 4471-4495, 4497, 4498, 460101-4610, 461301-4617, 4619-4622, 47010101-4703, 480201- 480302, 4817, 5104, 5106, 5142, 5145, 5156, 5159, 5162, 530101-5313, 5315-5321, 5406, 5409, 5508, 5602-5604, 5609-5612, 5618, 5705, 5711, 580101-5802, 5804-5807, 5809-5813, 5815-5817N, 5819-5826, 5828, 670101- 6702, 8201-8203, 8301
29	235 bp	800 bp	*4039	*0719, 0731, 0734, 0743, 080101-0808N, 0810, 0813- 0815, 0817-0820, 0822-0824, 0826-0839, 0841-0848,

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Lot-specific information

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				0850-0854, 1405, 1413, 1814, 3587, 3709, 3819, 3903, 3914, 3924, 3929, 3937, 410201, 410202, 4104, 4110, 4111, 420101-4202, 420501-4212, 5504, Cw*0808
30	190 bp	1070 bp	*400101-400209, 4004, 40060101-4008, 4010-4016, 4019, 4021-4023, 4025, 4027, 4029, 4030, 4034-4038, 4040, 4043, 4045-4050, 4053-4058, 4061, 4062, 4064-4070, 407201-4088, 4090, 4091, 4093-4097, 4099	*070501-0706, 0732, 0740, 0753, 0769, 0778, 0780, 0790, 0797, 0840, 130101, 130102, 130201-130206, 1307N-1309, 1311, 1313-1323, 1325, 1327-1333, 1336, 2707, 2711, 2720, 2724, 2727, 2733, 2743, 3531, 3588, 3947, 3950, 4431, 480101, 480102, 480301-4807, 4809-4816, 4818-4821, 5110, 5116, 5131, 5134, 5181, 5182, 5208, 5509, 5522, 5524, 5827, 8101-8104N
31⁶	225 bp	1070 bp	*4038, 4048, 4052, 4059, 4060	*0709, 0711, 0717, 0778, 9538, 1835, 3566, 4606, 4814, Cw*0738
32	255 bp	1070 bp	*400101-4009, 4011, 401401-4016, 4018, 4020, 4022N-4039, 4042-4046, 4048, 4050-4057, 4059-4075, 4077-4095, 4097-4099	*1571, 9575, 180101-1803, 1805-1808, 1810-1815, 1817N-1824, 1826-1842, 1844-1847, 2708, 2712, 2718, 2726, 2733, 2740, 2742, 2744, 3550, 3563, 3584, 3705, 3711, 3714 ^w , 3931, 4101-4104, 4106-4112, 4202, 4209, 4501-4511, 4614, 500101-5002, 5004-5009, 5402, 5516, 7301
33	245 bp	1070 bp	*4004, 4030, 4034, 4059, 4064, 4068	*0712, 0714, 071801, 071802, 130101-130103, 1307N, 1313, 1317, 1320-1323, 1325, 1326, 1328, 1329, 1336, 2719, 2730, 3515, 3533, 3588, 4416, 4421, 446401, 446402, 4817, 5713, 5725, Cw*0334
34	235 bp	1070 bp	*4042, 4060	*0714, 0717, 0728, 0796, 2736, 4817, Cw*0738
35^{5,8}	140 bp	800 bp	*4035, 4071	*0768, 1405, 1413, 1507, 1545, 1555, 1568, 9526, 1814, 2732, 3505, 3522, 3551, 3558, 3566, 3572, 3589, 3597, 3819, 3903, 3914, 3924, 3929, 3937, 4210, 4454, 4612, 4812, 4814,

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Lot-specific information

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36⁵	135 bp	1070 bp	*4010, 4040, 4049, 4058	5164, 5314, 5818 *1546, 1553, 9506, 3547, 44020101-440502, 4409-4414, 4416, 4417, 4419N-4439, 4441-4443, 4445-4448, 4450-4454, 4456N, 4458N, 4459, 4461N-4480, 4482, 4484-4499, 47010101-4705
37^{5,12}	125 bp, 270 bp	1070 bp	*4028, 4051	*1410, 1822, 3521, 352401, 352402, 3581, 3596, 3704, 5104, 5146, 5156, 5302, 5306, 5714, 5809
38⁵	120 bp	1070 bp	*4028	*350110, 350402, 4462, 5104, 5146, 5156
39⁶	330 bp	800 bp	*4012	*150301-150303, 1509-151002, 151801-151804, 1523, 1529, 1537, 1546, 1547, 1549, 1551-1554, 1561, 1562, 1564, 1569, 1572, 1574, 1580, 1590, 1591, 1593, 1598, 1599, 9503, 9506, 9508, 9514, 9515, 9519, 9523, 9524, 9527, 9531-9534, 9543, 9551, 9553, 9556, 9558, 9561, 9573, 9576, 9586, Cw*0746
40⁵	120 bp	1070 bp	*4038, 4052, 4059, 4060	*9516, 9524, 4606
41	205 bp	1070 bp	*4008, 4025, 4068	*180101-1803, 1805-1811, 1813-1815, 1817N-1824, 1826-1842, 1844-1847, 2723, 3550, 3584, 3708, 3931, 4202 ^w , 4209 ^w , 5402 ^w , 5516 ^w , 7301 ^w
42⁵	95 bp	1070 bp	*4058	*440210, 4434
43	185 bp	1070 bp	*4030, 4034, 4059	*4817
44^{5,13}	110 bp, 205 bp	800 bp	*4054, 4078	
45¹⁴	175 bp, 235 bp	1070 bp	*4055, 4056	
46⁹	545 bp	1070 bp	*4011, 4020, 4026, 4074	*1571, 9575, 180101-180105, 180107, 180108, 1803, 1805-180702, 1809-1813, 1815, 1817N, 1819-1821, 1823N, 1824, 1826, 1828-1842, 1844-1847, 2719, 2721, 2730, 3712, 3719, 3907 [?] , 3931
47⁵	145 bp	800 bp	*4057	

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48¹⁵	215 bp, 245 bp	1070 bp	*4061, 4073	*1806, 4614
49⁵	120 bp	1070 bp	*4036, 4048	*4807
50	250 bp	1070 bp	*4037, 4076	*2742, 3705
51	205 bp	1070 bp	*4062	
52⁵	90 bp	1070 bp	*4063, 4092	*9516
53	165 bp	1070 bp	*4065	
54⁵	130 bp	800 bp	*4066	
55⁵	125 bp	800 bp	*4067	
56^{5,16}	100 bp, 165 bp	1070 bp	*4069, 4097	
57	385 bp	1070 bp	*4079	*0723
58	190 bp	1070 bp	*4031, 4080	*480101, 480102, 4804, 4806, 4807, 4809, 4811, 4814-4816, 4818-4820, 8101-8104N
59	190 bp	1070 bp	*4081	
60^{5,17}	135 bp, 250 bp	800 bp	*4082, 4088	
61⁵	80 bp	1070 bp	*400204, 4083	*1546, 9506, 9543, 3519, 3547, 3706, 4484
62	195 bp	800 bp	*4084	
63	180 bp	1070 bp	*4085	
64⁵	105 bp	1070 bp	*4086	*9537, 390601, 390602, 3933, 3934, 3950, 4502, 5009, 511301, 511302, 5214, 5513, 5622, 5903, 7301
65^{5,18}	130 bp, 170 bp	1070 bp	*400201-400209, 4004-400602, 4008, 4011, 4013- 4016, 4019, 4023, 4026-4029, 4035, 4037, 4039, 4040, 4050, 4053, 4056- 4058, 4064, 4068, 4070, 4071, 4075, 4078, 4082, 4083, 4086, 4090, 4093- 4097, 4099	*070501-0706, 0732, 0734, 0740, 0753, 0769, 0778, 0780, 0790, 0797, 080101-0806, 0808N-081201, 081203, 0813, 0815-0827, 0829-0836, 0838- 0848, 0850-0854, 1303, 1318, 132201, 132202, 1331, 1413, 1509, 1530, 1542, 1548, 1558, 1573, 1583, 1586, 9550, 1826, 2707, 2711, 2720, 2727, 2733, 2743, 350201 ^w -350204 ^w , 350401-350403, 3506, 350901, 350902, 351201, 351202, 3518, 3522, 3531, 3544, 3559, 3560, 3581 ^w , 3583 ^w , 3587, 3588, 3595 ^w , 3712, 380101, 380103-3821, 39010101, 39010102L, 390103-390602, 3908-3914,

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				3916, 3918-3920, 3922, 3924, 3926-3928, 3930-3942, 3945-3948, 3950-3954, 3956, 4101-410302, 4105-4109, 4111, 4112, 420101-4202, 4204-4208, 4210-4213, 4410, 4414, 4462, 4477, 4482, 4611, 4618, 4805, 4810, 4812, 4813, 4819, 510101-510202, 510204-5116, 5119-512403, 5126, 5128-5136, 5138-5141N, 5143, 5144N, 5146, 5148-5174, 5176-5183, 5186-5189, 520101-5211, 5213-5219, 5319 ^w , 5401-5405N, 5407, 5408N, 5410, 5412, 5413, 5417-5419, 550101-5505, 5507-5513, 5515-5522, 5524-5526, 5528-5539, 560101-5602, 5604-5608, 5610, 5612-5617, 5619N-5627, 570201-570302, 5707, 5709, 5712, 5717, 5808, 5820, 5827, 5828, 5901-5905, 670101-6702, 7801-7806, 8201-8203, Cw*1524
66⁵	145 bp	1070 bp	*401401-4016, 4032, 407201, 407202, 4077, 4098	*070201-071802, 0720-072201, 0723-0732, 0734-0739, 0741-0752, 0754-0759, 0761-0799, 9538, 1835, 3566, 3707, 4108, 420501, 420502, 4805, 4808, 4810, 4812, 4814, Cw*0223, Cw*0738
67^{5,6}	85 bp	1070 bp	*4089	
68	225 bp	1070 bp	*4090	
69⁵	75 bp	800 bp	*4091, 4094	*1321
70	505 bp	1070 bp	*4009, 4018, 4024, 4031-4033, 4042, 4044, 4098	*1335, 4104, 44020101-440305, 440307-440502, 4409, 4411-4413, 4416, 4419N-4430, 4432-4437, 4439-4442, 4444-4456N, 4458N-4461N, 4463-4476, 4478-4481, 4484-4499
71⁵	120 bp	800 bp	*4075	*3812
72⁶	245 bp	1070 bp	*40060101-400602, 4044, 4053, 4070, 4075, 4083, 4086, 4093,	*0778, 0784, 130201-130206, 1308Q, 1309, 1314-1316, 1318, 1319, 1327, 1330-1335, 2714, 3950, 4510, 4907, 5110,

4095, 4096	5116, 5131, 5134, 5182, 5208, 5509, 5522, 5524, 7301
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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 HLA-B*40 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 lengths 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 1070 base pairs, for most wells, or a band of 800 base pairs, for some wells.

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-B*40 subtyping.

In addition, wells number 4, 5, 7, 14 to 18, 21 to 23, 27, 29, 35, 39, 44, 47, 54, 55, 60, 62, 69 and 71 contain the primer pair giving rise to the shorter, 800 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 HLA-B alleles first exon nucleotide sequences are not available. In these instances it is not known whether some of the primers of the SSP sets are completely matched with the target sequences or not. We assume that unknown sequences in the first exon are conserved within allelic groups.

⁴Due to the sharing of sequence motifs between HLA-B alleles non-HLA-B*40 alleles will be amplified by primer mixes 1, 2, 4 to 22, 25, 26, 28 to 43, 46, 48 to 50, 52, 57, 58, 61, 64 to 66 and 69 to 72.

In addition, the Cw*0206 allele will be amplified by primer mix 5, the Cw*0223 allele will be amplified by primer mix 5, 20, 26 and 66, the HLA-Cw*0305, 0325 and 0327 alleles will be amplified by primer mixes 4, 8 and 13, the Cw*0334 allele will be amplified by primer mix 33, the Cw*0738 allele will be amplified by primer mixes 16, 31, 34 and 66, the Cw*0746 allele will be amplified by primer mix 39, the Cw*0781 allele will be amplified by primer mix 11, the Cw*0808 alleles by primer mixes 6 and 29, the Cw*1225 allele will be amplified by primer mix 23, the Cw*1524 allele will be amplified by primer mix 65, and the Cw*17 alleles faintly by primer mix 7.

⁵Short specific PCR fragments are less intense and not as sharp as longer specific bands.

⁶Primer mixes 17, 21, 31, 39, 67 and 72 has a tendency of giving rise to nonspecific amplifications.

⁷Primer mixes 7 may faintly amplify the Cw*17 alleles.

⁸Primer mix 35 has a tendency to give rise to a primer dimer artifact.

⁹Primer mix 46 may give a lower yield of specific PCR product than the other B*40 primer mixes.

¹⁰Primer mix 16: Specific PCR fragment of 75 bp in the B*4015 allele. Specific PCR fragment of 160 bp in the B*401401, B*407201, B*4077 and B*070213, B*1835, B*3566, B*420501-420502 and B*4812 and the Cw*0738 alleles.

¹¹Primer mix 20: Specific PCR fragment of 135 bp in the B*401401-401403, 4023 and the B*0707, 0712, 0714, 071801-071802, 0777, 0778, 0784, 1835, 9538 and 4108 and Cw*0223 alleles. Specific PCR fragment of 285 bp in the B*4031 and 4080 and the B*480101-480102, 4806, 4811, 4814 to 4816, 4818 to 4820 and 8101 to 8104N alleles. Specific PCR fragments of 135 and 285 bp in the B*4015, 4016, 4032, 4045, 4098 and B*070201 to 0706, 0708 to 0711, 0713, 0715 to 0717, 0720 to 0732, 0734 to 0739, 0741 to 0752, 0754-0759, 0761-0776, 0779- 0783, 0785-0799, 3566, 3707, 420501-420502, 4805, 4808, 4810 and 4812 alleles. (Both specific fragments may not always be obtained.)

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¹²Primer mix 37: Specific PCR fragment of 125 bp in the B*4051 allele. Specific PCR fragment of 270 bp in the B*4028 and B*1410, 1822, 3521, 352401, 352402, 3581, 3596, 5104, 5146, 5156, 5302, 5306, 5714 and B*5809 alleles.

¹³Primer mix 44: Specific PCR fragment of 110 bp in the B*4078 allele. Specific PCR fragment of 205 bp in the B*4054 allele.

¹⁴Primer mix 45: Specific PCR fragment of 175 bp in the B*4056 allele. Specific PCR fragment of 235 bp in the B*4055 alleles.

¹⁵Primer mix 48: Specific PCR fragment of 215 bp in the B*4061 allele. Specific PCR fragment of 245 bp in the B*4073 and B*1806 and 4614 alleles.

¹⁶Primer mix 56: Specific PCR fragment of 100 bp in the B*4069 allele. Specific PCR fragment of 250 bp in the B*4097 allele.

¹⁷Primer mix 60: Specific PCR fragment of 135 bp in the B*4082 allele. Specific PCR fragment of 250 bp in the B*4088 allele.

¹⁸Primer mix 65: Specific PCR fragment of 130 bp in the B*400201-400209, 4004-400602, 4008, 4011, 4013, 401401-401403, 4019, 4026-4029, 4035, 4037, 4039, 4040, 4050, 4053, 4056-4058, 4064, 4068, 4070, 4071, 4075, 4078, 4082, 4083, 4086, 4090, 4093-4097 and B*4099 and the B*0734, 0780, 080101-0805, 0808N-081201, 081203, 0813, 0815-0819, 0821-0827, 0829-0836, 0838-0839, 0841-0848, 0850-0854, 1303, 132201, 132202, 1413, 1509, 1542, 1548, 1583, 1586, 1826, 2707, 2711, 2720, 2727, 2733, 2743, 350201^w-350204^w, 350401-350403, 3506, 350901, 350902, 351201, 351202, 3522, 3531, 3559, 3560, 3581^w, 3583^w, 3587, 3588, 3595^w, 3712, 380101, 380103-3821, 39010101, 39010102L, 390103-390602, 3909, 3910, 3912-3914, 3916, 3919, 3920, 3922, 3924, 3926-3928, 3930-3932, 3934, 3935, 3937-3942, 3945-3948, 3950-3954, 3956, 4101-410302, 4105-4109, 4111, 4112, 420101-4202, 4204-4208, 4210-4213, 4410, 4414, 4462, 4477, 4482, 4611, 4618, 4810, 4812, 4813, 510101-510202, 510204-5104, 5106-5116, 5119-512403, 5126, 5128, 5130-5136, 5138-5141N, 5143, 5144N, 5146, 5148-5153, 5155-5160, 5162-5174, 5176-5181, 5183, 5186-5189, 520101-5211, 5213-5219, 5319w, 5401-5405N, 5407, 5408N, 5412, 5413, 5417-5419, 550101-5505, 5507-5508, 5510-5513, 5515-5520, 5522, 5524-5526, 5528-5536, 5538, 5539, 560101-5602, 5604-5608, 5610, 5612-5617, 5619N-5627, 570301-570302, 5707, 5709, 5717, 5808, 5820, 5827, 5828, 5901-5905, 670101-6702, 7801-7806 and 8201-8203 and Cw*1524 alleles. Specific PCR fragment of 170 bp in the B*4023 and B*0790, 1318, 1331 and 4819 alleles.

Specific PCR fragment of 130 and 170 bp in the B*4015 and 4016 and the B*070501-0706, 0732, 0740, 0753, 0769, 0778, 0797, 0806, 0820, 0840, 1530, 1558, 1573, 9550, 3518, 3544, 3908, 3911, 3918, 3933, 3936, 4805, 5105, 5129, 5154, 5161, 5182, 5410, 5509, 5521, 5537, 570201, 570202 and 5712 alleles. (Both specific fragments may not always be obtained.)

^w, might be weakly amplified.

INTERPRETATION TABLE																									
HLA-B*40 SSP subtyping																									
Amplification patterns of the B*4001 to B*4099 alleles																									
	Well ³																								
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
Length of spec.	175	215	130	95	190	95	105	235	160	215	85	95	90	90	150	75	120	105	320	135	145	235	95	165	125
PCR product																									
Length of int.	800	1070	1070	800	800	1070	800	1070	1070	1070	1070	1070	1070	800	800	800	800	800	1070	1070	1070	800	1070	1070	1070
pos. control ¹	800	1070	1070	800	800	1070	800	1070	1070	1070	1070	1070	1070	800	800	800	800	800	1070	1070	1070	800	1070	1070	1070
Well No.	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
HLA-B allele ²	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
*400101-400105, 400107, 400108	+	+																							
*400106	+	+																							
*400201-400203, 400205-400209		+	+	+																					
*400204		+	+	+																					
*4003		+	+		+	+							+												
*4004		+	+																+						
*4005		+	+	+				+																	
*40060101-400602		+	+						+																
*4007	+									+															
*4008			+	+						+		+													
*4009		+	+	+									+												
*4010	+												+												+
*4011		+	+																						
*4012	+						+																		
*4013			+	+						+															
*401401		+																							
*401402, 401403		+																							
*4015		+																							
*4016		+																							
*4018		+	+	+	+								+												
*4019		+	+	+																					
*4020		+	+		+																				
*4021	+																								
*4022N	+	+																							
*4023	+	+																							
*4024		+	+	+	+								+												
*4025	+	+										+													
*4026		+	+																						
*4027		+	+	+		+																			
*4028		+	+																						
*4029		+	+	+																					
*4030		+																							
*4031		+		+	+								+												
*4032		+											+												
*4033	+	+																							
*4034		+																							
*4035		+	+	+																					+
*4036	+	+																							
*4037		+	+	+																					
*4038	+	+																							
*4039		+	+	+																					
*4040			W	+																					+
Well No.	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
HLA-B allele ²	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

INTERPRETATION TABLE

HLA-B*40 SSP subtyping

Amplification patterns of the B*4001 to B*4099 alleles

Well ³																												Length of spec.
3	3	3	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	
7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	Length of PCR product
125	120	330	120	205	95	185	110	175	545	145	215	120	250	205	90	165	130	125	100	385	190	190	135	80	195	180	105	
270							205	235			245							165				250						Length of int. pos. control ¹
1070	1070	800	1070	1070	1070	1070	800	1070	1070	800	1070	1070	1070	1070	1070	1070	800	800	1070	1070	1070	800	1070	800	1070	1070	1070	
3	3	3	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	Well No. HLA-B allele ²
7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	
																												*400101-400105, 400107, 400108
																												*400106
																												*400201-400203, 400205-400209
																												*400204
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																												*40060101-400602
																												*4007
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																												*401402, 401403
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																												*4039
																												*4040
3	3	3	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	Well No. HLA-B allele ²
7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	

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Well No.																																					
HLA-B allele ²	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	
*4042	+	+																	+										+							+	
*4043	+	+																	+										+							+	
*4044		+	+		+				+										+																	+	
*4045		+		+															+		+		+												+		
*4046	+	+					+												+										+						+		
*4047	+	+											+						+										+						+		
*4048	+	+																	+									+		+	+				+		
*4049	+																		+									+								+	
*4050		+	+	+																			+				+			+					+		
*4051	+	+																	+									+							+		
*4052	+	+			+														+									+			+	+			+		
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*4060	+	+																	+		+							+			+	+		+		+	
*4061	+																		+									+			+	+		+		+	
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*4063	+	+																	+									+			+	+		+		+	
*4064		+	+																+									+			+	+		+		+	
*4065	+	+																	+									+			+	+		+		+	
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*4067	+	+																	+									+			+	+		+		+	
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*4096		+	+						+				+																	+		+	+		+		
*4097		+	+	+																			+							+		+	+		+		
Well No.																																					
HLA-B allele ²	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	

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Well No.									1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3				
HLA-B allele ²	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6
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*070213				+	+								+		+				+			+		+		+										
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*0714																									+		+					+	+			
*0717						+							+						+			+		+		+				+			+			
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*0723				+	+								+							+		+		+		+										
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*0734				+															+			+		+		+			+							
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*0751				+	+								+							+		+		+		+										
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*0768				+	+								+							+		+		+		+								+		
*0778								+											+	+			+		+			+	+							
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*0804, 0817, 0854, 4211				+				+																					+							
Well No.									1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	
HLA-B allele ²	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6

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3 3 3 4			4 4 4 4			4 4 4 4			4 5 5 5			5 5 5 5			5 5 5 6			6 6 6 6			6 6 6 6			6 7 7 7			Well No.
7 8 9 0			1 2 3 4			5 6 7 8			9 0 1 2			3 4 5 6			7 8 9 0			1 2 3 4			5 6 7 8			9 0 1 2			HLA-B allele ²
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3 3 3 4			4 4 4 4			4 4 4 4			4 5 5 5			5 5 5 5			5 5 5 6			6 6 6 6			6 6 6 6			6 7 7 7			Well No.
7 8 9 0			1 2 3 4			5 6 7 8			9 0 1 2			3 4 5 6			7 8 9 0			1 2 3 4			5 6 7 8			9 0 1 2			HLA-B allele ²

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Well No.									1				1				1				1				1				1				2				2				2				2				2				3				3				3				3			
HLA-B allele ²	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6																																
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*150102																																																																				
Well No.									1				1				1				1				1				1				2				2				2				2				3				3				3				3							
HLA-B allele ²	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6																																

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3 3 3 4				4 4 4 4				4 4 4 4				4 5 5 5				5 5 5 5				5 5 5 6				6 6 6 6				6 6 6 6				6 7 7 7				Well No.								
7 8 9 0				1 2 3 4				5 6 7 8				9 0 1 2				3 4 5 6				7 8 9 0				1 2 3 4				5 6 7 8				9 0 1 2				HLA-B allele ²								
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7 8 9 0				1 2 3 4				5 6 7 8				9 0 1 2				3 4 5 6				7 8 9 0				1 2 3 4				5 6 7 8				9 0 1 2				HLA-B allele ²								

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Well No.									1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3					
HLA-B allele ²	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6
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*9538						+																					+	+			+					
*9543												+																+								
*180101-180105, 180107, 180108, 1803, 1805, 1811, 1813, 1815, 1817N, 1819, 1820, 1823N, 1824, 1828, 1830-1832, 1834, 1836, 1838, 1840-1842, 1844-1847		+																										+								
*180106, 1808, 1818		+																										+							+	
*1802, 1827		+																																	+	
*1806		+																										+							+	
*180701, 180702, 1829											+																	+							+	
*1809		+																										+								
*1810, 1821		+				+																						+							+	
*1812		+																										+							+	
*1814		+					+						+																+					+		
*1822		+											+							+														+		
*1826		+																										+							+	
*1833																												+							+	
*1835		+				+										+	+			+								+			+	+				
*1837		+						+																				+						+		
*1839		+																										+						+		
*2708, 2712, 2726, 2740, 2744																																		+		
Well No.									1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	
HLA-B allele ²	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6

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3 3 3 4 4 4 4 4 4 4 4 5 5 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 7 7 7													Well No.
7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2													HLA-B allele ²
+													*150301-150303, 1554, 1561, 1564, 1569, 1591, 1598, 9503, 9523, 9527, 9531, 9532, 9551, 9556, 9558, 9573
+													*1504, 9512, 9518, 9529, 9541, 9555
+													*1507, 1555, 4612
+													*1509
+													*151001, 151002, 151801-151804, 1523, 1529, 1537, 1551, 1572, 1574, 1580, 1590, 1593, 1599, 9508, 9515, 9519, 9533, 9534, 9553, 9561, 9576, 9586
+													*1520, 1534, 1585, 3546
+													*1530, 1548, 1558, 1573, 9550
+													*1540, 9517
+													*1542, 4611, 4618, 5535
+													*1545
+													*1546, 9506
+													*1547
+													*1549, 1552, 9514
+													*1553
+													*1562
+													*1568
+													*1571, 9575
+													*1583, 5712
+													*1586
+ +													*9516
+													*9524
+													*9526
+													*9537
+													*9538
+													*9543
+													*180101-180105, 180107, 180108, 1803, 1805, 1811, 1813, 1815, 1817N, 1819, 1820, 1823N, 1824, 1828, 1830-1832, 1834, 1836, 1838, 1840-1842, 1844-1847
+													*180106, 1808, 1818
+													*1802, 1827
+													*1806
+													*180701, 180702, 1829
+													*1809
+													*1810, 1821
+													*1812
+													*1814
+													*1822
+													*1826
+													*1833
+													*1835
+													*1837
+													*1839
+													*2708, 2712, 2726, 2740, 2744
3 3 3 4 4 4 4 4 4 4 4 5 5 5 5 5 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 7 7 7													Well No.
7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2													HLA-B allele ²

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Well No.									1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3					
HLA-B allele ²	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6
*2714									+										+																	
*2718		+					+																										+			
*2719, 2730																											+							+		
*2720, 2727																														+						
*2721																											+									
*2723									+																											
*2724				+																				+												
*2729		+						+																+						+						
*2732				+																				+										+		
*2733				+																				+						+						
*2736																		+						+									+			
*2741, Cw*0206							+																													
*2742																															+					
*350110																				+								+								
*350201-350204, 3583, 3595, 5319																				+								+								
*350401, 350403, 3506, 350901, 350902, 3518, 5602, 5610, 5828, 8201-8203																				+								+								
*350402																				+								+								
*3505, 3558, 3572, 3589, 3597, 5314, 5818							+					+								+														+		
*3516, 3517								+					+							+																
*3519												+								+								+								
*3521, 352401, 3596, 5302, 5306, 5809																				+								+								
*3522				+				+												+														+		
*352402								+					+							+																
*3530								+					+							+																
*3547												+		+						+							+								+	
*3550, 3584									+					+						+								+								
*3551							+		+				+							+															+	
*3563		+						+					+							+							+			+						
*3566						+	+					+			+	+	+	+	+	+	+			+					+					+		
*3581																				+								+								
*3586						+														+								+								
*370101-370107, 3703N, 3710, 3713, 3715-3718, 3720		+																		+								+								
*3702		+																		+																
*3704		+																		+								+								
*3705		+																		+											+					
*3706		+													+					+								+								
*3707		+		+	+							+							+		+				+											
*3708		+																		+								+								
*3709		+		+								+																+								
*3711		+																		+								+								
*3712		+																		+								+								
*3714		+																		+								+								
*3719		+																		+								+								
*3721									+											+								+								
*3803, 390201, 390202, 3908, 391301, 391302, 3939							+													+								+								
*3812																				+								+								
*3819, 3903, 3924, 3937						+																						+						+		
Well No.									1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3		
HLA-B allele ²	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6

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3 3 3 4				4 4 4 4				4 4 4 4				4 5 5 5				5 5 5 5				5 5 5 6				6 6 6 6				6 6 6 6				6 7 7 7				Well No.	
7 8 9 0				1 2 3 4				5 6 7 8				9 0 1 2				3 4 5 6				7 8 9 0				1 2 3 4				5 6 7 8				9 0 1 2				HLA-B allele ²	
																																+				*2714	
																																				*2718	
																																				*2719, 2730	
																																				*2720, 2727	
				+																																*2721	
																																				*2723	
																																				*2724	
																																				*2729	
																																				*2732	
																																				*2733	
																																				*2736	
																																				*2741, Cw*0206	
																																				*2742	
+																																				*350110	
																																				*350201-350204, 3583, 3595, 5319	
																																				*350401, 350403, 3506, 350901, 350902, 3518, 5602, 5610, 5828, 8201-8203	
+																																				*350402	
																																				*3505, 3558, 3572, 3589, 3597, 5314, 5818	
																																				*3516, 3517	
																																				*3519	
+																																				*3521, 352401, 3596, 5302, 5306, 5809	
+																																				*3522	
																																				*352402	
																																				*3530	
																																				*3547	
																																				*3550, 3584	
																																				*3551	
																																				*3563	
+																																				*3566	
																																				*3581	
																																				*3586	
																																				*370101-370107, 3703N, 3710, 3713, 3715-3718, 3720	
+																																				*3702	
																																				*3704	
																																				*3705	
																																				*3706	
																																				*3707	
																																				*3708	
																																				*3709	
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																																				*3712	
																																				*3714	
																																				*3719	
																																				*3721	
																																				*3803, 390201, 390202, 3908, 391301, 391302, 3939	
																																				*3812	
																																				*3819, 3903, 3924, 3937	
3 3 3 4				4 4 4 4				4 4 4 4				4 5 5 5				5 5 5 5				5 5 5 6				6 6 6 6				6 6 6 6				6 7 7 7				Well No.	
7 8 9 0				1 2 3 4				5 6 7 8				9 0 1 2				3 4 5 6				7 8 9 0				1 2 3 4				5 6 7 8				9 0 1 2				HLA-B allele ²	

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3 3 3 4				4 4 4 4				4 4 4 4				4 5 5 5				5 5 5 5				5 5 5 6				6 6 6 6				6 6 6 6				6 7 7 7				Well No.
7 8 9 0				1 2 3 4				5 6 7 8				9 0 1 2				3 4 5 6				7 8 9 0				1 2 3 4				5 6 7 8				9 0 1 2				HLA-B allele ²
								?																+				+								*390601, 390602, 3933, 3934, 511301, 511302, 5214
																																				*3907
																																				*3923, 3949
																																				*3929
				+																																*3931
								+																												*3947
																								+				+								*3950
																																				*4101, 4106, 4109
																																				*410201, 410202, 4111
																																				*410301, 410302
																																+				*4104
																																				*4105
																																				*4107
																												+				+				*4108
																																				*4110
																																				*4112
				w																																*4202
				w																																*420501, 420502
																																				*4209
																																+				*44020101-440209, 440211- 440305, 440307-440502, 4411, 4413, 4419N, 4422-4430, 4432, 4433, 4435-4437, 4439, 4441- 4442, 4445, 4450-4453, 4456N, 4458N, 4459, 4461N, 4463, 4465- 4469, 4471-4474, 4476, 4478- 4480, 4485-4489, 4491-4495, 4497, 4498
				+																																*440210, 4434
																																				*440306, 4417, 4438, 4443, 47010101, 47010102, 4703
																																				*4407
																																				*4409, 4446, 4475
																												+								*4410
																																				*4412
																																				*4414, 4477, 4482
																																				*4415, 4418, 490101-4902, 4904- 4906, 4908, 4909
																																				*4416, 4421, 446401, 446402
																																				*4420, 4447, 4470, 4496, 4499
																																				*4431
																																				*4440, 4444
																																				*4448
																																				*4449, 4481
																																				*4454
																																				*4455
+																																				*4460
																												+								*4462
																								+												*4484
																																+				*4490
																																				*4501, 4503-4505, 4507-4509, 4511, 500101, 5002, 5005-5008
																																				*4502, 5009
																																				*4506
																																				*4510
+																																				*4606
3 3 3 4				4 4 4 4				4 4 4 4				4 5 5 5				5 5 5 5				5 5 5 6				6 6 6 6				6 6 6 6				6 7 7 7				Well No.
7 8 9 0				1 2 3 4				5 6 7 8				9 0 1 2				3 4 5 6				7 8 9 0				1 2 3 4				5 6 7 8				9 0 1 2				HLA-B allele ²

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																				Well No.	
																				HLA-B allele ²	
																				*4614	
																				*4702	
																				*4704, 4705	
																				*480101, 480102, 4809, 4811, 4816, 4818, 4820	
																				*480201, 480202	
																				*480301, 480302	
																				*4804	
																				*4805	
																				*4806, 8101-8104N	
																				*4807	
																				*4810	
																				*4812	
																				*4813	
																				*4814	
																				*4815	
																				*4817	
																				*4819	
																				*4821	
																				*4903	
																				*4907	
																				*500102, 5004	
																				*510109, 512402, 512403	
																				*5104	
																				*5106, 5159	
																				*5110	
																				*5116, 5131, 5134, 5182, 5208	
																				*5146	
																				*5156	
																				*5164	
																				*5216	
																				*5402, 5516	
																				*5411	
																				*5513, 5622, 5903	
																				*5518	
																				*5713, 5725	
																				*5714	
																				*5805	
																				*7301	
																				Well No.	
																				HLA-B allele ²	
																				Cw*0223	
																				Cw*0334	
																				Cw*0738	
																				Cw*0746	
																				Cw*0781	
																				Cw*0808	
																				Cw*1225	
																				Well No.	
																				HLA-A allele ²	

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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 1070 base pairs, for most wells, or a band of 800 base pairs, for some wells.

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-B*40 subtyping.

In addition, wells number 4, 5, 7, 14 to 18, 21 to 23, 27, 29, 35, 39, 44, 47, 54, 55, 60, 62, 69 and 71 contain the primer pair giving rise to the shorter, 800 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.

²The nucleotide sequence of the B*4017 allele has been shown to be identical to B*4016.

The nucleotide sequence of the B*4041 allele has been shown to be identical to B*4040.

³Primer mix 16: Specific PCR fragment of 75 bp in the B*4015 allele. Specific PCR fragment of 160 bp in the B*401401, B*407201, B*4077 and B*070213, B*3566, B*420501-420502 and B*4812 and the Cw*0738 alleles.

Primer mix 20: Specific PCR fragment of 135 bp in the B*401401-401403, 4023 and the B*0707, 0712, 0714, 071801-071802, 0777, 0778, 0784, 1835, 9538 and 4108 and Cw*0223 alleles. Specific PCR fragment of 285 bp in the B*4031 and 4080 and the B*480101-480102, 4806, 4811, 4814 to 4816, 4818 to 4820 and 8101 to 8104N alleles. Specific PCR fragments of 135 and 285 bp in the B*4015, 4016, 4032, 4045, 4098 and B*070201 to 0706, 0708 to 0711, 0713, 0715 to 0717, 0720 to 0732, 0734 to 0739, 0741 to 0752, 0754-0759, 0761-0776, 0779-0783, 0785-0799, 3566, 3707, 420501-420502, 4805, 4808, 4810 and 4812 alleles. (Both specific fragments may not always be obtained.)

Primer mix 37: Specific PCR fragment of 125 bp in the B*4051 allele. Specific PCR fragment of 270 bp in the B*4028 and B*1410, 1822, 3521, 352401, 352402, 3581, 3596, 5104, 5146, 5156, 5302, 5306, 5714 and B*5809 alleles.

Primer mix 44: Specific PCR fragment of 110 bp in the B*4078 allele. Specific PCR fragment of 205 bp in the B*4054 allele.

Primer mix 45: Specific PCR fragment of 175 bp in the B*4056 allele. Specific PCR fragment of 235 bp in the B*4055 alleles.

Primer mix 48: Specific PCR fragment of 215 bp in the B*4061 allele. Specific PCR fragment of 245 bp in the B*4073 and B*1806 and 4614 alleles.

Primer mix 56: Specific PCR fragment of 100 bp in the B*4069 allele. Specific PCR fragment of 250 bp in the B*4097 allele.

Primer mix 60: Specific PCR fragment of 135 bp in the B*4082 allele. Specific PCR fragment of 250 bp in the B*4088 allele.

Primer mix 65: Specific PCR fragment of 130 bp in the B*400201-400209, 4004-400602, 4008, 4011, 4013, 401401-401403, 4019, 4026-4029, 4035, 4037, 4039, 4040, 4050, 4053, 4056-4058, 4064, 4068, 4070, 4071, 4075, 4078, 4082, 4083, 4086, 4090, 4093-4097 and B*4099 and the B*0734, 0780, 080101-0805, 0808N-081201, 081203, 0813, 0815-0819, 0821-0827, 0829-0836, 0838-0839, 0841-0848, 0850-0854, 1303, 132201, 132202, 1413, 1509, 1542, 1548, 1583, 1586, 1826, 2707, 2711, 2720, 2727, 2733, 2743, 350201^w-350204^w, 350401-350403, 3506, 350901, 350902, 351201, 351202, 3522, 3531, 3559, 3560, 3581^w, 3583^w, 3587, 3588, 3595^w, 3712, 380101, 380103-3821, 39010101, 39010102L, 390103-390602, 3909, 3910, 3912-3914, 3916, 3919, 3920, 3922, 3924, 3926-3928, 3930-3932, 3934, 3935, 3937-3942, 3945-3948, 3950-3954, 3956, 4101-410302, 4105-4109, 4111, 4112, 420101-4202, 4204-4208, 4210-4213, 4410, 4414, 4462, 4477, 4482, 4611, 4618, 4810, 4812, 4813, 510101-510202, 510204-5104, 5106-5116, 5119-512403, 5126, 5128, 5130-5136, 5138-5141N, 5143, 5144N, 5146, 5148-5153, 5155-5160, 5162-5174, 5176-5181, 5183, 5186-5189, 520101-5211, 5213-5219, 5319w, 5401-5405N, 5407, 5408N, 5412, 5413, 5417-5419, 550101-5505, 5507-5508, 5510-5513, 5515-5520, 5522, 5524-5526, 5528-5536, 5538, 5539, 560101-5602, 5604-5608, 5610, 5612-5617, 5619N-5627, 570301-570302, 5707, 5709, 5717, 5808, 5820, 5827, 5828, 5901-5905, 670101-6702, 7801-7806 and 8201-8203 and Cw*1524 alleles. Specific PCR fragment of 170 bp in the B*4023 and B*0790, 1318, 1331 and 4819 alleles.

Specific PCR fragment of 130 and 170 bp in the B*4015 and 4016 and the B*070501-0706, 0732, 0740, 0753, 0769, 0778, 0797, 0806, 0820, 0840, 1530, 1558, 1573, 9550, 3518, 3544, 3908, 3911, 3918, 3933, 3936, 4805, 5105, 5129, 5154, 5161, 5182, 5410, 5509, 5521, 5537, 570201, 570202 and 5712 alleles. (Both specific fragments may not always be obtained.)

^w, might be weakly amplified.

Primers

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
5'-primer(s) ¹	363 5'-Agg 3'	97 5'-TCC 3'	106 5'-CCg 3'	363 5'-AgC 3'	412 5'-ATg 3'	363 5'-AgC 3'	206 5'-AGa 3'	363 5'-AgC 3'	357 5'-Tgg 3'	97 5'-TCC 3'	463 5'-TgA 3'	206 5'-gAA 3'
								363 5'-AgC 3'				
3'-primer(s) ²	499 5'-ggA 3'	272 5'-Tgg 3'	193 5'-CgT 3'	419 5'-CgT 3'	559 5'-CTC 3'	418 5'-gTT 3'	272 5'-Tgg 3'	559 5'-CAg 3'	477 5'-gCg 3'	272 5'-TgA 3'	499 5'-ggA 3'	259 5'-gTT 3'
			193 5'-TgT 3'			419 5'-Cgg 3'					512 5'-CCA 3'	
						419 5'-CgA 3'						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

Well No.	13	14	15	16	17	18	19	20	21	22	23	24
5'-primer(s) ¹	363 5'-AgC 3'	144 5'-gCA 3'	206 5'-gAA 3'	486 5'-ACC 3'	527 5'-TgT 3'	369 5'-TAC 3'	379 5'-ACC 3'	363 5'-AgC 3'	209 5'-ggC 3'	363 5'-AgC 3'	257 5'-CCC 3'	436 5'-AgA 3'
	363 5'-AgC 3'			570 5'-gAT 3'				512 5'-gTg 3'				
3'-primer(s) ²	412 5'-gTC 3'	193 5'-CgT 3'	317 5'-ggA 3'	605 5'-gCT 3'	605 5'-gCT 3'	435 5'-TCT 3'	3 rd I 5'-TAT 3'	605 5'-gCT 3'	311 5'-ggT 3'	559 5'-CTC 3'	311 5'-ggT 3'	559 5'-CTC 3'
Well No.	13	14	15	16	17	18	19	20	21	22	23	24

Well No.	25	26	27	28	29	30	31	32	33	34	35	36
5'-primer(s) ¹	206 5'-gAA 3'	527 5'-TgA 3'	106 5'-CCA 3'	361 5'-AgT 3'	363 5'-AgC 3'	412 5'-ATA 3'	419 5'-gTC 3'	97 5'-TCC 3'	355 5'-TCA 3'	409 5'-ggT 3'	363 5'-AgC 3'	97 5'-TCT 3'
				363 5'-Agg 3'			420 5'-TTA 3'					
				363 5'-Agg 3'								
3'-primer(s) ²	292 5'-gTC 3'	605 5'-gCT 3'	243 5'-TAA 3'	3 rd I 5'-TAT 3'	559 5'-CgT 3'	559 5'-CTC 3'	605 5'-gCT 3'	311 5'-ggT 3'	559 5'-CTC 3'	605 5'-gCT 3'	463 5'-gCT 3'	193 5'-CgT 3'
Well No.	25	26	27	28	29	30	31	32	33	34	35	36

Well No.	37	38	39	40	41	42	43	44	45	46	47	48
5'-primer(s) ¹	355 5'-TCA 3'	355 5'-TCA 3'	45 5'-ggA 3'	419 5'-gTC 3'	97 5'-TCC 3'	141 5'-ATT 3'	355 5'-TCA 3'	412 5'-ATA 3'	814 5'-TgA 3'	103 5'-CCT 3'	89 5'-gAC 3'	97 5'-TCC 3'
	499 5'-TCT 3'								874 5'-Cgg 3'			
3'-primer(s) ²	583 5'-gTg 3'	435 5'-TCT 3'	206 5'-CCT 3'	499 5'-ggA 3'	259 5'-gTT 3'	193 5'-CgT 3'	499 5'-ggA 3'	479 5'-CCA 3'	916 5'-gAC 3'	362 5'-TCC 3'	193 5'-CgT 3'	272 5'-TgT 3'
								577 5'-gCT 3'				299 5'-TCA 3'
Well No.	37	38	39	40	41	42	43	44	45	46	47	48

Well No.	49	50	51	52	53	54	55	56	57	58	59	60
5'-primer(s) ¹	419 5'-gTT 3'	97 5'-TCC 3'	490 5'-CgA 3'	512 5'-gTT 3'	363 5'-Agg 3'	206 5'-gAA 3'	523 5'-CCg 3'	206 5'-gAA 3'	322 5'-gCC 3'	363 5'-AgC 3'	124 5'-gCC 3'	350 5'-TCg 3'
				512 5'-gTT 3'				636 5'-CAC 3'				466 5'-gTC 3'
3'-primer(s) ²	499 5'-ggA 3'	302 5'-ggT 3'	3 rd I 5'-TAT 3'	559 5'-CAg 3'	488 5'-CCA 3'	296 5'-CTT 3'	605 5'-gCT 3'	263 5'-gTA 3'	419 5'-CgT 3'	512 5'-CCA 3'	272 5'-Tgg 3'	559 5'-CTC 3'
		312 5'-AgT 3'						760 5'-AAA 3'				
Well No.	49	50	51	52	53	54	55	56	57	58	59	60

Lot No.: **86G**

Lot-specific information

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Well No.	61	62	63	64	65	66	67	68	69	70	71	72
5'-primer(s) ¹	165	97	363	357	412	499	363	363	142	193	193	357
	5' -ACC 3'	5' -TCC 3'	5' -AgC 3'	5' -Tgg 3'	5' -ATA 3'	5' -TCA 3'	5' -AgC 3'	5' -AgC 3'	5' -TCA 3'	5' -CCA 3'	5' -CCA 3'	5' -Tgg 3'
									477			
									5' -gCC 3'			
3'-primer(s) ²	203	251	500	419	499	605	409	547	175	412	272	559
	5' -TCC 3'	5' -CCg 3'	5' -ggA 3'	5' -CgA 3'	5' -ggT 3'	5' -gCT 3'	5' -ATA 3'	5' -gTg 3'	5' -CCg 3'	5' -gTC 3'	5' -TgC 3'	5' -CTC 3'
					539				506			
					5' -TCC 3'				5' -TgA 3'			
Well No.	61	62	63	64	65	66	67	68	69	70	71	72

¹The nucleotide position, in the 1st, 2nd, 3rd or 4th exons or 2nd or 3rd intron, matching the specificity-determining 3'-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. 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.

²The nucleotide position, in the 2nd, 3rd or 5th exons or the 1st or 3rd intron, 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.

[illegible]

CELL LINE VALIDATION SHEET																																		
HLA-B*40 SSP subtyping kit																																		
					Prod. No.:	Well																												
						17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32													
						200852517	200852518	200852519	200852520	200852521	200852522	200852523	200852524	200852525	200852526	200852527	200852528	200852529	200852530	200852531	200852532													
	IHC cell line		B*																															
1	9001	SA	*0702			-	-	-	+	-	+	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	9280	LK707	*5201		*7301	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	
3	9011	E4181324	*52011			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	9275	GU373	*1510		*5301	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	
5	9009	KAS011	*3701			-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	
6	9353	SM	*3901		*5101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	
7	9020	QBL	*1801			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	+	
8	9025	DEU	*3501			-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	
9	9026	YAR	*3801			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	
10	9107	LKT3	*5401			-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	9051	PITOUT	*4403			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	
12	9052	DBB	*5701			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13	9004	JESTHOM	*2705			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14	9071	OLGA	*1501		*1520	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	
15	9075	DKB	*4001			+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	+	-	-	-	-	-	+	-	
16	9037	SWEIG007	*4002			-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	+	-	+	
17	9282	CTM3953540	*0801		*5501	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	
18	9257	32367	*1401		*5601	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	
19	9038	BM16	*1801			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	+	-	
20	9059	SLE005	*4001			+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-	-	-	+	-	+	
21	9064	AMALA	*1501			-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	
22	9056	KOSE	*3503			-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	
23	9124	IHL	*4002		*5602	-	-	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-	-	-	+	-	+	
24	9035	JBUSH	*3801			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	
25	9049	IBW9	*1402			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	
26	9285	WT49	*5801			-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	
27	9191	CH1007	*0705		*5101	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-	+	-	-	-	-	+	-	-	-	-	-	-	-	
28	9320	BEL5GB	*4402		*4403	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	
29	9050	MOU	*4403			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30	9021	RSH	*4201			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	
31	9019	DUCAF	*1801			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	+	-	
32	9297	HAG	*4102			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	+	-	
33	9098	MT14B	*4001			+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	-	-	-	-	-	+	-	+	
34	9104	DHIF	*3801			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	
35	9302	SSTO	*4402			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	
36	9024	KT17	*1501		*3501	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-	-	-	-	-	-	-	
37	9065	HHKB	*0702			-	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	
38	9099	LZL	*1501			-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	
39	9315	CML	*0801		*2705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	
40	9134	WHONP199	*1302		*4601	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	-	-	-	-	-	-	-	
41	9055	H0301	*1402			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	
42	9066	TAB089	*4601			-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	
43	9076	T7526	*4601			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	
44	9057	TEM	*3801			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	
45	9239	SHJO	*4201		*5001	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	+	-	
46	9013	SCHU	*0702			-	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	
47	9045	TUBO	*5101			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
48	9303	TER-ND	*3501		*4403	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	

Lot No.: **86G**

Lot-specific information

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CELL LINE VALIDATION SHEET																				
HLA-B*40 SSP subtyping kit																				
					Well															
					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
				Prod. No.:	200852534	200852534	200852534	200852536	200852537	200852538	200852539	200852540	200852541	200852542	200852543	200852544	200852545	201069946	200852547	200852548
	IHC cell line		B*																	
1	9001	SA	*0702		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280	LK707	*5201 *7301		-	-	-	-	-	-	-	-	W	-	-	-	-	-	-	-
3	9011	E4181324	*52011		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275	GU373	*1510 *5301		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
5	9009	KAS011	*3701		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353	SM	*3901 *5101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020	QBL	*1801		-	-	-	-	-	-	-	-	+	-	-	-	-	+	-	-
8	9025	DEU	*3501		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026	YAR	*3801		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107	LKT3	*5401		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051	PITOUT	*4403		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
12	9052	DBB	*5701		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004	JESTHOM	*2705		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071	OLGA	*1501 *1520		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075	DKB	*4001		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037	SWEIG007	*4002		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282	CTM3953540	*0801 *5501		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257	32367	*1401 *5601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038	BM16	*1801		-	-	-	-	-	-	-	-	+	-	-	-	-	+	-	-
20	9059	SLE005	*4001		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064	AMALA	*1501		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056	KOSE	*3503		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124	IHL	*4002 *5602		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035	JBUSH	*3801		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049	IBW9	*1402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285	WT49	*5801		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191	CH1007	*0705 *5101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320	BEL5GB	*4402 *4403		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
29	9050	MOU	*4403		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
30	9021	RSH	*4201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9019	DUCAF	*1801		-	-	-	-	-	-	-	-	+	-	-	-	-	+	-	-
32	9297	HAG	*4102		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098	MT14B	*4001		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104	DHIF	*3801		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302	SSTO	*4402		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
36	9024	KT17	*1501 *3501		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065	HHKB	*0702		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099	LZL	*1501		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315	CML	*0801 *2705		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134	WHONP199	*1302 *4601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055	H0301	*1402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066	TAB089	*4601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076	T7526	*4601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057	TEM	*3801		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239	SHJO	*4201 *5001		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013	SCHU	*0702		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045	TUBO	*5101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303	TER-ND	*3501 *4403		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-

CELL LINE VALIDATION SHEET																				
HLA-B*40 SSP subtyping kit																				
					Well															
					49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
				Prod. No.:	200852549	200852550	200852551	200852552	200852553	200852554	200852555	201069956	200852557	200852558	200852559	200852560	200852561	200852562	200852563	200852564
	IHC cell line		B*																	
1	9001	SA	*0702		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280	LK707	*5201		*7301	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
3	9011	E4181324	*52011			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275	GU373	*1510		*5301	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009	KAS011	*3701			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353	SM	*3901		*5101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020	QBL	*1801			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025	DEU	*3501			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026	YAR	*3801			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107	LKT3	*5401			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051	PITOUT	*4403			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052	DBB	*5701			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004	JESTHOM	*2705			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071	OLGA	*1501		*1520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075	DKB	*4001			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037	SWEIG007	*4002			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282	CTM3953540	*0801		*5501	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257	32367	*1401		*5601	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038	BM16	*1801			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059	SLE005	*4001			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064	AMALA	*1501			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056	KOSE	*3503			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124	IHL	*4002		*5602	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035	JBUSH	*3801			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049	IBW9	*1402			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285	WT49	*5801			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191	CH1007	*0705		*5101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320	BEL5GB	*4402		*4403	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050	MOU	*4403			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021	RSH	*4201			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9019	DUCAF	*1801			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297	HAG	*4102			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098	MT14B	*4001			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104	DHIF	*3801			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302	SSTO	*4402			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024	KT17	*1501		*3501	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065	HHKB	*0702			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099	LZL	*1501			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315	CML	*0801		*2705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134	WHONP199	*1302		*4601	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055	H0301	*1402			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066	TAB089	*4601			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076	T7526	*4601			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057	TEM	*3801			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239	SHJO	*4201		*5001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013	SCHU	*0702			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045	TUBO	*5101			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303	TER-ND	*3501		*4403	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CELL LINE VALIDATION SHEET													
HLA-B*40 SSP subtyping kit													
					Prod. No.:	Well							
						65	66	67	68	69	70	71	72
						200852565	200852566	200852567	200852568	201069969	200852570	200852571	201069972
	IHC cell line		B*										
1	9001	SA	*0702		-	+	-	-	-	-	-	-	-
2	9280	LK707	*5201		*7301	+	-	-	-	-	-	-	+
3	9011	E4181324	*52011			+	-	-	-	-	-	-	-
4	9275	GU373	*1510		*5301	-	-	-	-	-	-	-	-
5	9009	KAS011	*3701			-	-	-	-	-	-	-	-
6	9353	SM	*3901		*5101	+	-	-	-	-	-	-	-
7	9020	QBL	*1801			-	-	-	-	-	-	-	-
8	9025	DEU	*3501			-	-	-	-	-	-	-	-
9	9026	YAR	*3801			+	-	-	-	-	-	-	-
10	9107	LKT3	*5401			+	-	-	-	-	-	-	-
11	9051	PITOUT	*4403			-	-	-	-	-	+	-	-
12	9052	DBB	*5701			-	-	-	-	-	-	-	-
13	9004	JESTHOM	*2705			-	-	-	-	-	-	-	-
14	9071	OLGA	*1501		*1520	-	-	-	-	-	-	-	-
15	9075	DKB	*4001			-	-	-	-	-	-	-	-
16	9037	SWEIG007	*4002			+	-	-	-	-	-	-	-
17	9282	CTM3953540	*0801		*5501	+	-	-	-	-	-	-	-
18	9257	32367	*1401		*5601	+	-	-	-	-	-	-	-
19	9038	BM16	*1801			-	-	-	-	-	-	-	-
20	9059	SLE005	*4001			-	-	-	-	-	-	-	-
21	9064	AMALA	*1501			-	-	-	-	-	-	-	-
22	9056	KOSE	*3503			-	-	-	-	-	-	-	-
23	9124	IHL	*4002		*5602	+	-	-	-	-	-	-	-
24	9035	JBUSH	*3801			+	-	-	-	-	-	-	-
25	9049	IBW9	*1402			-	-	-	-	-	-	-	-
26	9285	WT49	*5801			-	-	-	-	-	-	-	-
27	9191	CH1007	*0705		*5101	+	+	-	-	-	+	-	-
28	9320	BEL5GB	*4402		*4403	-	-	-	-	-	+	-	-
29	9050	MOU	*4403			-	-	-	-	-	-	-	-
30	9021	RSH	*4201			+	-	-	-	-	-	-	-
31	9019	DUCAF	*1801			-	-	-	-	-	-	-	-
32	9297	HAG	*4102			+	-	-	-	-	-	-	-
33	9098	MT14B	*4001			-	-	-	-	-	-	-	-
34	9104	DHIF	*3801			+	-	-	-	-	-	-	-
35	9302	SSTO	*4402			-	-	-	-	-	+	-	-
36	9024	KT17	*1501		*3501	-	-	-	-	-	-	-	-
37	9065	HHKB	*0702			-	+	-	-	-	-	-	-
38	9099	LZL	*1501			-	-	-	-	-	-	-	-
39	9315	CML	*0801		*2705	+	-	-	-	-	-	-	-
40	9134	WHONP199	*1302		*4601	-	-	-	-	-	-	-	+
41	9055	H0301	*1402			-	-	-	-	-	-	-	-
42	9066	TAB089	*4601			-	-	-	-	-	-	-	-
43	9076	T7526	*4601			-	-	-	-	-	-	-	-
44	9057	TEM	*3801			+	-	-	-	-	-	-	-
45	9239	SHJO	*4201		*5001	+	-	-	-	-	-	-	-
46	9013	SCHU	*0702			-	+	-	-	-	-	-	-
47	9045	TUBO	*5101			+	-	-	-	-	-	-	-
48	9303	TER-ND	*3501		*4403	-	-	-	-	-	+	-	-

CERTIFICATE OF ANALYSIS**Olerup SSP® HLA-B*40 SSP**

Product number:

101.523-24u/03u – without *Taq* pol.

Lot number:

86G

Expiry date:

2012-March-01

Number of tests:

24 tests – Product No. 101.523-24u

3 tests – Product No. 101.523-03u

Number of wells per test:

72

Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2008-525-01	25	2008-525-25	49	2008-525-49
2	2008-525-02	26	2008-525-26	50	2008-525-50
3	2010-699-03	27	2008-525-27	51	2008-525-51
4	2008-525-04	28	2008-525-28	52	2008-525-52
5	2008-525-05	29	2008-525-29	53	2008-525-53
6	2008-525-06	30	2008-525-30	54	2008-525-54
7	2008-525-07	31	2008-525-31	55	2008-525-55
8	2008-525-08	32	2008-525-32	56	2010-699-56
9	2008-525-09	33	2008-525-33	57	2008-525-57
10	2008-525-10	34	2008-525-34	58	2008-525-58
11	2008-525-11	35	2008-525-35	59	2008-525-59
12	2008-525-12	36	2008-525-36	60	2008-525-60
13	2008-525-13	37	2008-525-37	61	2008-525-61
14	2008-525-14	38	2008-525-38	62	2008-525-62
15	2008-525-15	39	2008-525-39	63	2008-525-63
16	2008-525-16	40	2008-525-40	64	2008-525-64
17	2008-525-17	41	2008-525-41	65	2008-525-65
18	2008-525-18	42	2008-525-42	66	2008-525-66
19	2008-525-19	42	2008-525-43	67	2008-525-67
20	2008-525-20	43	2008-525-44	68	2008-525-68
21	2008-525-21	45	2008-525-45	69	2010-699-69
22	2008-525-22	46	2010-699-46	70	2008-525-70
23	2008-525-23	47	2008-525-47	71	2008-525-71
24	2008-525-24	48	2008-525-48	72	2010-699-72

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

No DNAs carrying the alleles to be amplified by primer solutions 11, 16, 23, 24, 25, 27, 31, 34, 37, 38, 40, 42 to 45, 47 to 57, 59 to 63, 67 to 69, and 71 were available.

The specificities of the primers in primer solutions 11, 16, 25, 31, 34, 37, 38, 40, 42, 43, 45, 48 to 50, 52, 61, 69 and 71 were tested by separately adding one or two additional 5'-primers, respectively one or two additional 3'-primers.

In primer solutions 27, 44, 53, 54, 56, 62, 63, 67 and 68 it was only possible to test the 5'-primers, the 3'-primers were not possible to test.

Lot No.: **86G**

Lot-specific information

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In primer solutions 23, 24, 47, 51, 55, 57, 59 and 60 it was only possible to test the 3'-primers, the 5'-primers were not possible to test.

One additional 3'-primer in primer solution 6 was tested by separately adding one additional 5'-primer.

One of the 3'-primers in primer solutions 3 and 6 and one of the 5'-primers in primer solutions 16 and 45 were not possible to test.

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

Date of approval: 2010-March-21

Approved by:

Quality Control, Supervisor

Lot No.: **86G**

Lot-specific information

www.olerup-ssp.com

Declaration of Conformity

Product name: *Olerup* SSP® HLA-B*40
Product number: 101.523-24u/03u
Lot number: 86G

Intended use: HLA-B*40 high resolution histocompatibility testing

Manufacturer: *Olerup* SSP AB
Franzengatan 5
SE-112 51 Stockholm, 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 9001:2008 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.)

Stockholm, Sweden
2013-September-16

Ann-Cathrin Jareman
Head of QA and Regulatory Affairs

Lot No.: **86G**

Lot-specific information

www.olerup-ssp.com

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