

Olerup SSP® HLA-B*39

Product number:	101.566-12u/04u – without <i>Taq</i> pol.
Lot number:	67G
Expiry date:	2012-February-01
Number of tests:	12 tests – Product No. 101.566-12u 4 tests – Product No. 101.566-04u
Number of wells per test:	32
Storage - pre-aliquoted primers:	dark at -20°C
- PCR Master Mix:	-20°C
- Adhesive PCR seals	RT
- Product Insert	RT

This Product Description is only valid for Lot No. 67G.

**CHANGES COMPARED TO THE PREVIOUS OLERUP SSP®
HLA-B*39 LOT**

The HLA-B*39 specificity and interpretation tables have been updated for the HLA-B alleles described since the previous *Olerup SSP®* HLA-B*39 lot was made (**Lot No. 46F**).

The primers of the wells detailed below have been exchanged, added or modified compared to the previous lot of the HLA-B*39 kit.

Well	5'-primer	3'-primer	rationale
1	Added	-	Primer added for the B*390107 allele.
4	Added	Added	Primer pair added for the B*3951 allele.
8	Added	Added	Primer pair added for the B*3947 allele.
9	-	-	Exchanged positive control primer pair.
11	-	Added	Primer added for the B*3953 allele.
13	Added	Added	Primer pair added for the B*3951 allele.
15	Added	Added/ modified	Primers added for the B*3938Q and B*3954 alleles. 3'-primer modified for increased specificity.
24	-	Modified	3'-primer modified for increased specificity.
27	Modified	-	5'-primer modified for increased specificity.
28	Modified	-	5'-primer modified for increased specificity.
29	-	Added	Primer added for the B*3950 allele.
30	Added	Added	Primer pair added for the B*3952 allele.

Changes in revision R01 compared to R00:

1. The B*3903, 3914, 3929 and 3937 and the B*3819 alleles are weakly amplified by primer mix 32. This has been corrected in the Specificity and Interpretation Tables.

Change in revision R02 compared to R01:

1. The B*3931 allele is weakly amplified by primer mix 24.
2. Primer mix 15 gives a low yield of specific product for the B*3931 allele.

PRODUCT DESCRIPTION

HLA-B*39 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the B*3901 to B*3954 alleles.

PLATE LAYOUT

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

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

The 32 well cut PCR plate is marked with 'HLA-B*39' in silver/gray ink.

Well No. 1 is marked with the Lot Number '67G'.

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.

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

INTERPRETATION

The interpretation of HLA-B*39 SSP subtypings will be influenced by the B*07, the B*08, the B*13, the B*14, most B*15, the B*18, the B*27, B*35, the B*37, the B*38, many B*40, several B*41, the B*42, several B*44, the B*45, several B*46, the B*47, the B*48, one B*49 several B*51, several B*52, the B*53, the B*54, the B*55, the B*56, the B*57, most B*58, the B*59, the B*67, the B*7301, two B*78, the B*81, the B*82 and the B*8301 alleles when present on the other haplotype. In addition, the Cw*0130 allele will be amplified by primer mix 26 and the Cw*1515 allele will be amplified by primer mix 28.

UNIQUELY IDENTIFIED ALLELES

All the HLA-B*39 alleles, i.e. **B*3901 to B*3954**, recognized by the HLA Nomenclature Committee in October 2009¹ will give rise to unique amplification patterns by the primers in the HLA-B*39 subtyping kit².

The HLA-B*39 subtyping kit cannot distinguish the B*39010101, B*390103 and B*390106 to B*390108 and B*390110 alleles or the B*390601 and B*390602 alleles or the B*391301 and B*391302.

¹HLA-B alleles listed on the IMGT/HLA web page 2009-October-10, release 2.27.0, www.ebi.ac.uk/imgt/hla.

²The B*3910 and B*670102 alleles will give rise to identical amplification patterns with the HLA-B*39 subtyping kit. These two alleles can be distinguished by the HLA-B low resolution and/or HLA-B*67 kits.

RESOLUTION IN HOMO- AND HETEROZYGOTES

The 53 HLA-B*39 alleles give rise to 59 different amplification patterns. These can be combined in 1 770 homozygous and heterozygous combinations. 1 027 of these genotypes do not give rise to unique amplification patterns. In these calculations the different sizes of the specific PCR products in lanes 4, 7, 8, 10, 13, 15, 16, 20, 22 27 and 30 were not considered.

```

+++----- -++----- -++----- ----- 3913,3929 = 3914,3949 = 3929,3949
+++----- ----- -++----- ----- 390201,3937 = 3903,3913
+++----- ----- -++----- ----- 390202,3937 = 3913,3937
+++----- -++----- -++----- ----- 3904,3908 = 3908,3946 = 3908,3947
+++----- -++----- -++----- ----- 3946,3949 = 3947,3949
+++----- ----- -++----- ----- 3913,3946 = 3913,3947
+++----- -++----- -++----- ----- 390201,3907 = 391902,3949
+++----- -++----- -++----- ----- 390202,3907 = 3907,3913 = 3907,3949
+++----- -++----- -++----- ----- 3933,3949 = 3940N,3949
+++----- -++----- -++----- ----- 3908,3915 = 3936,3949 = 3949,3953
+++----- -++----- -++----- ----- 3908,3912 = 3908,3931
+++----- -++----- -++----- ----- 3908,3918 = 3913,3918
+++----- -++----- -++----- ----- 3908,3928 = 3908,3945
+++----- -++----- -++----- ----- 3908,3933 = 3908,3940N = 3913,3933 =
                                     3913,3940N
+++----- -++----- -++----- ----- 3908,3930 = 3908,3943
+++----- -++----- -++----- ----- 3908,3941 = 3908,3942
+++----- -++----- -++----- ----- 3901,3908 = 390201,3911 = 3908,3936 =
                                     3908,3953 = 3913,3936 = 3913,3953
+++----- -++----- -++----- ----- 390104,3908 = 390109,3908 = 390202,3911
                                     = 3905,3908 = 3908,3911 = 3911,3913
+++----- -++----- -++----- ----- 3930,3949 = 3943,3949
+++----- -++----- -++----- ----- 3941,3949 = 3942,3949
+++----- -++----- -++----- ----- 3901,3949 = 3913,3915 = 3915,3949
+++----- -++----- -++----- ----- 390104,3949 = 3905,3949
+++----- -++----- -++----- ----- 390201,3943 = 390202,3943 = 3913,3930 =
                                     3913,3943
+++----- ----- -++----- ----- 3913,3941 = 3913,3942
+++----- ----- -++----- ----- 3901,3913 = 390201,3905
+++----- ----- -++----- ----- 390104,3913 = 390202,3905 = 3905,3913
+++----- ----- -++----- ----- 3904,3937 = 3937,3946
+++----- -++----- -++----- ----- 3907,3914 = 3907,3929
+++----- -++----- -++----- ----- 3903,3911 = 3937,3953
+++----- -++----- -++----- ----- 3905,3917 = 3910,3937 = 3917,3937 =
                                     3920,3937
+++----- -++----- -++----- ----- 3912,3937 = 3931,3937 = 3937,3954
+++----- ----- -++----- ----- 3935,3937 = 3937,3952
+++----- ----- -++----- ----- 3905,3924 = 3937,3941 = 3937,3942
+++----- ----- -++----- ----- 3901,3937 = 3903,3905
+++----- ----- -++----- ----- 390104,3937 = 390109,3937 = 3905,3937
+++----- ----- -++----- ----- 3903,3943 = 3930,3937 = 3937,3943
+++----- -++----- -++----- ----- 3904,3907 = 3907,3946 = 3907,3947
+++----- -++----- -++----- ----- 3904,3911 = 3911,3946 = 3911,3947
+++----- -++----- -++----- ----- 3920,3946 = 3920,3947
+++----- -++----- -++----- ----- 3904,3943 = 3943,3946
+++----- -++----- -++----- ----- 3904,3905 = 3905,3946 = 3905,3947
+++----- -++----- -++----- ----- 3907,3933 = 3907,3940N
+++----- -++----- -++----- ----- 3907,3936 = 3907,3953
+++----- -++----- -++----- ----- 3907,3910 = 3907,3920
+++----- -++----- -++----- ----- 3907,3912 = 3907,3931 = 3907,3954

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Lot No.: **67G**

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+++-----	-+-+-----	--+-+++++	-----	3907,3928 = 3907,3945
+++-----	-+-+-----	--+-+++++	-----+	3907,3935 = 3907,3952
+++-----	-+-+-----	--+-+++++	-----+	3907,3930 = 3907,3943
+++-----	-+-+-----	--+-+++++	-----+	3907,3941 = 3907,3942
+++-----	-+-+-----	--+-+++++	-----	3901,3907 = 3907,3915 = 3907,391902
+++-----	-+-+-----	--+-+++++	-----	390104,3907 = 390109,3907 = 3905,3907 =
				3907,3907 = 3907,391901
+++-----	-+-+-----	--+-+++++	-----+	391901,3943 = 391902,3943
+++-----	-+-+-----	--+-+++++	-----+	3920,3933 = 3920,3940N
+++-----	-+-+-----	--+-+++++	-----	3920,3936 = 3920,3953
+++-----	-+-+-----	--+-+++++	-----	3910,3911 = 3911,3920
+++-----	-+-+-----	--+-+++++	-----	3911,3912 = 3911,3931 = 3911,3954
+++-----	-+-+-----	--+-+++++	-----+	3905,3918 = 3911,3918
+++-----	-+-+-----	--+-+++++	-----	3911,3928 = 3911,3945
+++-----	-+-+-----	--+-+++++	-----+	3905,3933 = 3905,3940N = 3911,3933 =
				3911,3940N
+++-----	-+-+-----	--+-+++++	-----+	3911,3935 = 3911,3952
+++-----	-+-+-----	--+-+++++	-----+	3911,3930 = 3911,3943 = 3943,3953
+++-----	-+-+-----	--+-+++++	-----+	3911,3941 = 3911,3942
+++-----	-+-+-----	--+-+++++	-----	3901,3911 = 3905,3936 = 3905,3953 =
				3911,3936 = 3911,3953
+++-----	-+-+-----	--+-+++++	-----	390104,3911 = 390109,3911 = 3905,3911 =
				3911,3911
+++-----	-+-+-----	--+-+++++	-----+	3910,3943 = 3920,3930 = 3920,3943
+++-----	-+-+-----	--+-+++++	-----+	3920,3941 = 3920,3942
+++-----	-+-+-----	--+-+++++	-----	390104,3920 = 3905,3910 = 3905,3920
+++-----	-+-+-----	--+-+++++	-----+	3912,3943 = 3931,3943 = 3943,3954
+++-----	-+-+-----	--+-+++++	-----	3905,3912 = 3905,3931 = 3905,3954
+++-----	-+-+-----	--+-+++++	-----	3905,3928 = 3905,3945
+++-----	-+-+-----	--+-+++++	-----+	3935,3943 = 3943,3952
+++-----	-+-+-----	--+-+++++	-----+	3905,3935 = 3905,3952
+++-----	-+-+-----	--+-+++++	-----+	3901,3943 = 390104,3943 = 390109,3943 =
				3905,3930 = 3905,3943
+++-----	-+-+-----	--+-+++++	-----+	3905,3941 = 3905,3942
+++-----	-+-+-----	--+-+++++	-----	390104,3905 = 390109,3905 = 3905,3905
+++-----	-+-+-----	--+-+++++	-----	390201,3951 = 390202,3951 = 3923,3926 =
				3923,3951
+++-----	-+-+-----	--+-+++++	-----	390201,3926 = 390202,3926
+++-----	-+-+-----	--+-+++++	-----	3904,3951 = 3946,3951 = 3947,3951
+++-----	-+-+-----	--+-+++++	-----	3904,3926 = 3926,3946 = 3926,3947
+++-----	-+-+-----	--+-+++++	-----	391901,3951 = 391902,3951
+++-----	-+-+-----	--+-+++++	-----	391901,3926 = 391902,3926
+++-----	-+-+-----	--+-+++++	-----+	3933,3951 = 3940N,3951
+++-----	-+-+-----	--+-+++++	-----	3936,3951 = 3951,3953
+++-----	-+-+-----	--+-+++++	-----+	3926,3933 = 3926,3940N
+++-----	-+-+-----	--+-+++++	-----	3926,3936 = 3926,3953
+++-----	-+-+-----	--+-+++++	-----	3912,3951 = 3931,3951 = 3951,3954
+++-----	-+-+-----	--+-+++++	-----	390105,3951 = 3926,3927 = 3927,3951
+++-----	-+-+-----	--+-+++++	-----	3928,3951 = 3945,3951
+++-----	-+-+-----	--+-+++++	-----+	3935,3951 = 3951,3952
+++-----	-+-+-----	--+-+++++	-----+	3941,3951 = 3942,3951
+++-----	-+-+-----	--+-+++++	-----	3901,3951 = 390104,3951 = 390109,3951 =
				3926,3944 = 3926,3951 = 3944,3951 =
				3951,3951
+++-----	-+-+-----	--+-+++++	-----	3912,3926 = 3926,3931 = 3926,3954
+++-----	-+-+-----	--+-+++++	-----	3926,3928 = 3926,3945
+++-----	-+-+-----	--+-+++++	-----+	3926,3935 = 3926,3952
+++-----	-+-+-----	--+-+++++	-----+	3926,3941 = 3926,3942

Lot No.: **67G**

Lot-specific information

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+++++---	-----	---+-+--+	-----	3901,3926 = 390104,3926 = 390109,3926 = 3926,3926
++---+++-	---+---+	-+-+--+	-----	390201,3929 = 390202,3929
++---+++-	-----+	-+-+--+	-----	390201,3914 = 390202,3914
++---+++-	-----	-+-+--+	-----+	390201,3924 = 390202,3924
++---+++-	-----	-+-+--+	-----	390201,3903 = 390202,3903
++---+++-	---+---	-+-+--+	-----	3923,3946 = 3923,3947
++---+++-	-----	-+-+--+	---+---	390201,3950 = 390202,3950
++---+++-	-----	-+-+--+	-----	390201,3904 = 390201,3946 = 390201,3947 = 390202,3946 = 390202,3947
++---+++-	-----	-+-+--+	-----	3904,3939 = 3939,3946 = 3939,3947
++---+++-	+-----	-+-+--+	---+---	390201,3906 = 390202,3906
++---+++-	-+-----	-+-+--+	-----	390201,391901 = 390201,391902 = 390202,391902
++---+++-	-+-----	-+-+--+	-----	391901,3939 = 391902,3939
++---+++-	---+---	-+-+--+	---+---	3923,3933 = 3923,3940N
++---+++-	---+---	-+-+--+	-----	3923,3936 = 3923,3953
++---+++-	---+---	-+++-+--	---+---	390201,3918 = 390202,3918
++---+++-	---+---	-+-+--+	---+---	390201,3933 = 390201,3940N = 390202,3933 = 390202,3940N
++---+++-	---+---	-+-+--+	-----	390201,3936 = 390201,3953 = 390202,3936 = 390202,3953
++---+++-	---+---	-+-+--+	---+---	3933,3939 = 3939,3940N
++---+++-	---+---	-+-+--+	-----	3936,3939 = 3939,3953
++---+++-	---+---	-+-+--+	-----	390201,3915 = 390202,3915
++---+++-	---+---	-+++-+--	-----	390105,3923 = 390201,3927 = 390202,3927 = 3923,3927
++---+++-	---+---	-+-+--+	-----+	3923,3941 = 3923,3942
++---+++-	---+---	-+-+--+	-----	3901,3923 = 390201,3944 = 390202,3944 = 3923,3944
++---+++-	-----+	-+-+--+	---+---	390201,3938Q = 390202,3938Q
++---+++-	-----+	-+-+--+	-----	390201,3912 = 390201,3931 = 390202,3931
++---+++-	-----+	-+-+--+	-----	3912,3939 = 3931,3939
++---+++-	-----+	-+++-+--	-----	390201,3909 = 390202,3909
++---+++-	-----	+++--+-	-----	390201,3925N = 390202,3925N
++---+++-	-----	-+++-+--	-----	390105,390201 = 390105,390202
++---+++-	-----	-+-+---	-----	390201,3928 = 390201,3945 = 390202,3928
++---+++-	-----	-+-+--+	+-----	39010102L,390201 = 39010102L,390202
++---+++-	-----	-+-+--+	---+---	390201,3932 = 390202,3932
++---+++-	-----	-+-+--+	---+---	390201,3948 = 390202,3948
++---+++-	-----	-+-+--+	---+---	390201,3934 = 390202,3934
++---+++-	-----	-+-+--+	---+---	390201,3935 = 390202,3935
++---+++-	-----	-+-+--+	---+---	390201,3930 = 390202,3930
++---+++-	-----	-+-+--+	-----+	390201,3941 = 390201,3942 = 390202,3941 = 390202,3942
++---+++-	-----	-+-+--+	-----	3901,390201 = 3901,390202 = 390104,390201 = 390109,390201 = 3922,3939
++---+++-	-----	-+-+--+	-----	390201,3922 = 390202,3922
++---+++-	-----	---+---	-----	3928,3939 = 3939,3945
++---+++-	-----	---+---	-----+	3939,3941 = 3939,3942
++---+++-	-----	---+---	-----	3901,3939 = 390104,3939 = 390109,3939
++---+++-	---+---	---+---	-----	3904,3929 = 3929,3946
++---+++-	---+---	---+---	-----	3917,3946 = 3917,3947
++---+++-	-----+	---+---	-----	3904,3914 = 3914,3946
++---+++-	-----	---+---	-----+	3904,3924 = 3924,3946
++---+++-	-----	---+---	-----	3903,3904 = 3903,3946
++---+++-	-+-+---	---+---	-----	391901,3929 = 391902,3929
++---+++-	-+-+---	---+---	-----	3914,391901 = 3914,391902

Lot No.: **67G**

Lot-specific information

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++-+--+	-+-----	--+--+--	-----+	391901,3924 = 391902,3924
++-+--+	-+-----	--+--+--	-----	3903,391901 = 3903,391902
++-+--+	-+-----	--+--+--	-----	3917,3933 = 3917,3940N
++-+--+	-+-----	--+--+--	-----	3917,3936 = 3917,3953
++-+--+	-+-----	--+--+--	-----	3910,3929 = 3917,3929
++-+--+	-+-----	--+--+--	-----	3912,3929 = 3929,3931 = 3929,3954
++-+--+	-+-----	--+--+--	-----	390105,3929 = 3909,3929
++-+--+	-+-----	--+--+--	-----	3929,3935 = 3929,3952
++-+--+	-+-----	--+--+--	-----	3929,3941 = 3929,3942
++-+--+	-+-----	--+--+--	-----	3901,3929 = 390104,3929 = 390109,3929 = 3914,3915 = 3915,3929
++-+--+	-+-----	--+--+--	-----	3903,3929 = 3914,3929 = 3929,3929
++-+--+	-+-----	--+--+--	-----	3910,3914 = 3914,3917
++-+--+	-+-----	--+--+--	-----	3903,3916 = 3914,3916
++-+--+	-+-----	--+--+--	-----	3910,3924 = 3917,3924 = 3917,3941 = 3917,3942
++-+--+	-+-----	--+--+--	-----	3901,3917 = 3903,3910 = 3903,3917
++-+--+	-+-----	--+--+--	-----	3912,3914 = 3914,3931 = 3914,3954
++-+--+	-+-----	--+--+--	-----	3912,3924 = 3924,3931 = 3924,3954
++-+--+	-+-----	--+--+--	-----	3903,3912 = 3903,3931 = 3903,3954
++-+--+	-+-----	--+--+--	-----	390105,3914 = 3903,3909 = 3909,3914
++-+--+	-+-----	--+--+--	-----	3914,3935 = 3914,3952
++-+--+	-+-----	--+--+--	-----	3914,3941 = 3914,3942
++-+--+	-+-----	--+--+--	-----	3901,3914 = 390104,3914 = 390109,3914
++-+--+	-+-----	--+--+--	-----	3903,3914 = 3914,3914
++-+--+	-+-----	--+--+--	-----	3924,3935 = 3924,3952
++-+--+	-+-----	--+--+--	-----	3903,3935 = 3903,3952
++-+--+	-+-----	--+--+--	-----	3901,3924 = 390104,3924 = 390109,3924 = 3903,3941 = 3903,3942 = 3924,3941 = 3924,3942
++-+--+	-+-----	--+--+--	-----	3901,3903 = 390104,3903 = 390109,3903
++-+--+	-+-----	--+--+--	-----	3903,3924 = 3924,3924
++-+--+	-+-----	--+--+--	-----	3904,3906 = 3906,3946
++-+--+	-+-----	--+--+--	-----	391901,3950 = 391902,3950
++-+--+	-+-----	--+--+--	-----	3904,391902 = 391901,3946 = 391901,3947 = 391902,3946 = 391902,3947
++-+--+	-+-----	--+--+--	-----	3904,3918 = 3918,3946 = 3918,3947
++-+--+	-+-----	--+--+--	-----	3904,3933 = 3904,3940N = 3933,3946 = 3940N,3946 = 3940N,3947
++-+--+	-+-----	--+--+--	-----	3904,3936 = 3904,3953 = 3936,3946 = 3946,3953 = 3947,3953
++-+--+	-+-----	--+--+--	-----	3904,3915 = 3915,3946 = 3915,3947
++-+--+	-+-----	--+--+--	-----	3904,3927 = 3927,3946 = 3927,3947
++-+--+	-+-----	--+--+--	-----	3904,3944 = 3944,3946 = 3944,3947
++-+--+	-+-----	--+--+--	-----	3910,3946 = 3910,3947
++-+--+	-+-----	--+--+--	-----	3904,3938Q = 3938Q,3946 = 3938Q,3947
++-+--+	-+-----	--+--+--	-----	3912,3950 = 3931,3950 = 3950,3954
++-+--+	-+-----	--+--+--	-----	3904,3931 = 3904,3954 = 3912,3946 = 3912,3947 = 3931,3946 = 3931,3947 = 3946,3954 = 3947,3954
++-+--+	-+-----	--+--+--	-----	3904,3909 = 3909,3946 = 3909,3947
++-+--+	-+-----	--+--+--	-----	3904,3925N = 3925N,3946 = 3925N,3947
++-+--+	-+-----	--+--+--	-----	3904,3922 = 3922,3946 = 3922,3947
++-+--+	-+-----	--+--+--	-----	390105,3904 = 390105,3946 = 390105,3947
++-+--+	-+-----	--+--+--	-----	3904,3928 = 3928,3946 = 3945,3946 = 3945,3947
++-+--+	-+-----	--+--+--	-----	39010102L,3904 = 39010102L,3946 = 39010102L,3947
++-+--+	-+-----	--+--+--	-----	3904,3932 = 3932,3946

Lot No.: **67G**

Lot-specific information

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++-+---+	-----	--+-+--+	--+-----	3904,3948 = 3946,3948 = 3947,3948
++-+---+	-----	--+-+--+	-----++-	3935,3950 = 3950,3952
++-+---+	-----	--+-+--+	-----+--	3904,3934 = 3934,3946
++-+---+	-----	--+-+--+	-----+---	3901,3950 = 390104,3950 = 390109,3950 = 3904,3950 = 3946,3950
++-+---+	-----	--+-+--+	-----+---	3904,3935 = 3904,3952 = 3935,3946 = 3935,3947 = 3946,3952 = 3947,3952
++-+---+	-----	--+-+--+	-----+---	3904,3930 = 3930,3946
++-+---+	-----	--+-+--+	-----+---	3904,3941 = 3904,3942 = 3941,3946 = 3941,3947 = 3942,3946
++-+---+	-----	--+-+--+	-----+---	3901,3904 = 3901,3946 = 3901,3947 = 390104,3904 = 390104,3946 = 390104,3947 = 390109,3946 = 390109,3947 = 3904,3946 = 3904,3947 = 3946,3946 = 3946,3947
++-+---+	-----	--+-+--+	-----+---	390109,3904 = 3904,3904
++-+---+	++-----	--+-+--+	-----+---	3906,391901 = 3906,391902
++-+---+	+-----+	--+-+--+	-----+---	3906,3912 = 3906,3931 = 3906,3954
++-+---+	+-----	--+-+--+	-----+---	3906,3935 = 3906,3952
++-+---+	+-----	--+-+--+	-----+---	3901,3906 = 390104,3906 = 390109,3906
++-+---+	-++-----	--++-++	-----+---	3918,391901 = 3918,391902
++-+---+	-++-----	--++-++	-----+---	391901,3933 = 391901,3940N = 391902,3933 = 391902,3940N
++-+---+	-++-----	--++-++	-----+---	391901,3936 = 391901,3953 = 391902,3936 = 391902,3953
++-+---+	-++-----	--++-++	-----+---	3915,391901 = 3915,391902
++-+---+	-++-----	--++-++	-----+---	391901,3927 = 391902,3927
++-+---+	-++-----	--++-++	-----+---	391901,3944 = 391902,3944
++-+---+	-++-----	--++-++	-----+---	391901,3938Q = 391902,3938Q
++-+---+	-++-----	--++-++	-----+---	3912,391902 = 391901,3931 = 391901,3954 = 391902,3931 = 391902,3954
++-+---+	-++-----	--++-++	-----+---	3909,391901 = 3909,391902
++-+---+	-++-----	--++-++	-----+---	391901,3925N = 391902,3925N
++-+---+	-++-----	--++-++	-----+---	391901,3922 = 391902,3922
++-+---+	-++-----	--++-++	-----+---	390105,391901 = 390105,391902
++-+---+	-++-----	--++-++	-----+---	391901,3928 = 391902,3928 = 391902,3945
++-+---+	-++-----	--++-++	+-----	39010102L,391901 = 39010102L,391902
++-+---+	-++-----	--++-++	-----+---	391901,3932 = 391902,3932
++-+---+	-++-----	--++-++	-----+---	391901,3948 = 391902,3948
++-+---+	-++-----	--++-++	-----+---	391901,3934 = 391902,3934
++-+---+	-++-----	--++-++	-----+---	391901,3935 = 391901,3952 = 391902,3935 = 391902,3952
++-+---+	-++-----	--++-++	-----+---	391901,3930 = 391902,3930
++-+---+	-++-----	--++-++	-----+---	391901,3941 = 391901,3942 = 391902,3941 = 391902,3942
++-+---+	-++-----	--++-++	-----+---	3901,391901 = 3901,391902 = 390104,391902 = 390109,391902 = 391901,391902 = 391902,391902
++-+---+	-----	--++-++	-----+---	3915,3933 = 3915,3940N
++-+---+	-----	--++-++	-----+---	3915,3936 = 3915,3953
++-+---+	-----	--++-++	-----+---	3927,3933 = 3927,3940N
++-+---+	-----	--++-++	-----+---	3918,3927 = 3918,3944
++-+---+	-----	--++-++	-----+---	3927,3936 = 3927,3953
++-+---+	-----	--++-++	-----+---	3933,3944 = 3940N,3944
++-+---+	-----	--++-++	-----+---	3936,3944 = 3944,3953
++-+---+	-----	--++-++	-----+---	3910,3933 = 3910,3940N
++-+---+	-----	--++-++	-----+---	3910,3936 = 3910,3953
++-+---+	-----	--++-++	-----+---	3912,3918 = 3918,3931 = 3918,3954
++-+---+	-----	--++-++	-----+---	3933,3938Q = 3938Q,3940N
++-+---+	-----	--++-++	-----+---	3936,3938Q = 3938Q,3953

Lot No.: **67G**

Lot-specific information

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++-+-----	--+-----+	--+--+++	-----	3912,3933 = 3912,3940N = 3931,3933 = 3931,3940N = 3933,3954 = 3940N,3954
++-+-----	--+-----+	--+--+++	-----	3912,3936 = 3912,3953 = 3931,3936 = 3931,3953 = 3936,3954 = 3953,3954
++-+-----	--+-----+	--+--+++	-----	3909,3933 = 3909,3940N
++-+-----	--+-----+	--+--+++	-----	3909,3936 = 3909,3953
++-+-----	--+-----+	--+--+++	-----	3925N,3933 = 3925N,3940N
++-+-----	--+-----+	--+--+++	-----	3925N,3936 = 3925N,3953
++-+-----	--+-----+	--+--+++	-----	3922,3933 = 3922,3940N
++-+-----	--+-----+	--+--+++	-----	3922,3936 = 3922,3953
++-+-----	--+-----+	--+--+++	-----	3918,3928 = 3918,3945
++-+-----	--+-----+	--+--+++	-----	3918,3933 = 3918,3940N
++-+-----	--+-----+	--+--+++	-----	390105,3933 = 390105,3940N
++-+-----	--+-----+	--+--+++	-----	3918,3941 = 3918,3942
++-+-----	--+-----+	--+--+++	-----	3901,3918 = 390104,3918 = 390105,3918 = 390109,3918 = 3918,3918 = 3918,3935 = 3918,3936 = 3918,3952 = 3918,3953
++-+-----	--+-----+	--+--+++	-----	390105,3936 = 390105,3953
++-+-----	--+-----+	--+--+++	-----	3928,3940N = 3933,3945 = 3940N,3945
++-+-----	--+-----+	--+--+++	-----	3928,3953 = 3936,3945 = 3945,3953
++-+-----	--+-----+	--+--+++	-----	39010102L,3933 = 39010102L,3940N
++-+-----	--+-----+	--+--+++	-----	39010102L,3936 = 39010102L,3953
++-+-----	--+-----+	--+--+++	-----	3932,3940N = 3932,3953 = 3933,3948 = 3940N,3948
++-+-----	--+-----+	--+--+++	-----	3936,3948 = 3948,3953
++-+-----	--+-----+	--+--+++	-----	3933,3935 = 3933,3952 = 3935,3940N = 3940N,3952
++-+-----	--+-----+	--+--+++	-----	3933,3941 = 3940N,3941 = 3940N,3942
++-+-----	--+-----+	--+--+++	-----	3901,3933 = 3901,3940N = 390104,3933 = 390104,3940N = 390109,3933 = 390109,3940N = 3933,3940N = 3933,3953 = 3936,3940N = 3940N,3940N = 3940N,3953
++-+-----	--+-----+	--+--+++	-----	3935,3936 = 3935,3953 = 3936,3952 = 3952,3953
++-+-----	--+-----+	--+--+++	-----	3936,3941 = 3941,3953 = 3942,3953
++-+-----	--+-----+	--+--+++	-----	3901,3936 = 3901,3953 = 390104,3936 = 390104,3953 = 390109,3936 = 390109,3953 = 3936,3953 = 3953,3953
++-+-----	--+-----+	--+--+++	-----	3912,3915 = 3915,3931 = 3915,3954
++-+-----	--+-----+	--+--+++	-----	3915,3928 = 3915,3945
++-+-----	--+-----+	--+--+++	-----	3915,3935 = 3915,3952
++-+-----	--+-----+	--+--+++	-----	3915,3941 = 3915,3942
++-+-----	--+-----+	--+--+++	-----	3901,3915 = 390104,3915 = 390109,3915 = 3915,3915
++-+-----	--+-----+	--+--+++	-----	3912,3927 = 3927,3931 = 3927,3954
++-+-----	--+-----+	--+--+++	-----	3912,3944 = 3931,3944 = 3944,3954
++-+-----	--+-----+	--+--+++	-----	3909,3927 = 3909,3944
++-+-----	--+-----+	--+--+++	-----	3927,3928 = 3927,3945
++-+-----	--+-----+	--+--+++	-----	3927,3935 = 3927,3952
++-+-----	--+-----+	--+--+++	-----	3927,3941 = 3927,3942
++-+-----	--+-----+	--+--+++	-----	3901,3927 = 390104,3927 = 390105,3927 = 390105,3944 = 390109,3927 = 3927,3927 = 3927,3944
++-+-----	--+-----+	--+--+++	-----	3928,3944 = 3944,3945
++-+-----	--+-----+	--+--+++	-----	3935,3944 = 3944,3952
++-+-----	--+-----+	--+--+++	-----	3941,3944 = 3942,3944
++-+-----	--+-----+	--+--+++	-----	3901,3944 = 390104,3944 = 390109,3944 = 3944,3944
++-+-----	--+-----+	--+--+++	-----	390105,3916 = 3909,3910 = 3909,3916

Lot No.: **67G**

Lot-specific information

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++---+---	-----++	--+-+--+	-----+	3916,3941 = 3916,3942
++---+---	-----++	--+-+--+	-----+	3910,3941 = 3910,3942
++---+---	-----++	--+-+--+	-----	3909,3912 = 3909,3931 = 3909,3954
++---+---	-----++	++-+-++	-----	3912,3925N = 3925N,3931 = 3925N,3954
++---+---	-----++	++-+-++	-----	3912,3922 = 3922,3931 = 3922,3954
++---+---	-----++	++-+-++	-----	390105,3912 = 390105,3931 = 390105,3954
++---+---	-----++	++-+-++	-----	3928,3938Q = 3938Q,3945
++---+---	-----++	++-+-++	-----	3912,3928 = 3928,3931 = 3928,3954 = 3931,3945 = 3945,3954
++---+---	-----++	++-+-++	-----	39010102L,3912 = 39010102L,3931 = 39010102L,3954
++---+---	-----++	++-+-++	-----	3912,3932 = 3931,3932 = 3932,3938Q = 3932,3954
++---+---	-----++	++-+-++	-----	3935,3938Q = 3938Q,3952
++---+---	-----++	++-+-++	-----	3938Q,3941 = 3938Q,3942
++---+---	-----++	++-+-++	-----	3901,3938Q = 390104,3938Q = 390109,3938Q = 3912,3938Q = 3912,3948 = 3931,3938Q = 3931,3948 = 3938Q,3938Q = 3938Q,3948 = 3938Q,3954 = 3948,3954
++---+---	-----++	++-+-++	-----	3912,3934 = 3931,3934 = 3934,3954
++---+---	-----++	++-+-++	-----	3912,3935 = 3912,3952 = 3931,3935 = 3931,3952 = 3935,3954
++---+---	-----++	++-+-++	-----	3912,3930 = 3930,3931 = 3930,3954
++---+---	-----++	++-+-++	-----	3912,3941 = 3912,3942 = 3931,3941 = 3931,3942 = 3941,3954 = 3942,3954
++---+---	-----++	++-+-++	-----	3901,3912 = 3901,3931 = 3901,3954 = 390104,3912 = 390104,3931 = 390104,3954 = 390109,3931 = 390109,3954 = 3912,3931 = 3912,3954 = 3931,3931 = 3931,3954
++---+---	-----++	++-+-++	-----	390109,3912 = 3912,3912
++---+---	-----++	++-+-++	-----	3909,3928 = 3909,3945
++---+---	-----++	++-+-++	-----	3909,3935 = 3909,3952
++---+---	-----++	++-+-++	-----	3909,3941 = 3909,3942
++---+---	-----++	++-+-++	-----	3901,3909 = 390104,3909 = 390105,3909 = 390109,3909 = 3909,3909
++---+---	-----++	++-+-++	-----	3925N,3928 = 3925N,3945
++---+---	-----++	++-+-++	-----	3925N,3935 = 3925N,3952
++---+---	-----++	++-+-++	-----	3925N,3941 = 3925N,3942
++---+---	-----++	++-+-++	-----	3901,3925N = 390104,3925N = 390109,3925N = 3925N,3925N
++---+---	-----++	++-+-++	-----	3922,3928 = 3922,3945
++---+---	-----++	++-+-++	-----	3922,3935 = 3922,3952
++---+---	-----++	++-+-++	-----	3922,3941 = 3922,3942
++---+---	-----++	++-+-++	-----	3901,3922 = 390104,3922 = 390109,3922
++---+---	-----++	++-+-++	-----	390105,3928 = 390105,3945
++---+---	-----++	++-+-++	-----	390105,3935 = 390105,3952
++---+---	-----++	++-+-++	-----	390105,3941 = 390105,3942
++---+---	-----++	++-+-++	-----	3901,390105 = 390104,390105 = 390105,390105 = 390105,390109
++---+---	-----++	++-+-++	-----	39010102L,3928 = 39010102L,3945
++---+---	-----++	++-+-++	-----	3928,3948 = 3945,3948
++---+---	-----++	++-+-++	-----	3928,3935 = 3928,3952 = 3935,3945 = 3945,3952
++---+---	-----++	++-+-++	-----	3928,3941 = 3928,3942 = 3941,3945 = 3942,3945
++---+---	-----++	++-+-++	-----	3901,3928 = 3901,3945 = 390104,3928 = 390104,3945 = 390109,3928 = 3928,3945
++---+---	-----++	++-+-++	-----	390109,3945 = 3945,3945
++---+---	-----++	++-+-++	-----	39010102L,3935 = 39010102L,3952

Lot No.: **67G**

Lot-specific information

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++---+---	-----	--+-+--+	+-----+	39010102L,3941 = 39010102L,3942
++---+---	-----	--+-+--+	+-----	3901,39010102L = 39010102L,39010102L =
				39010102L,390104 = 39010102L,390109
++---+---	-----	--+-+--+	--++-+--	3932,3935 = 3932,3952
++---+---	-----	--+-+--+	--++-+--	3901,3932 = 390104,3932 = 390109,3932 =
				3932,3948
++---+---	-----	--+-+--+	--+-+--	3935,3948 = 3948,3952
++---+---	-----	--+-+--+	--+-+--	3941,3948 = 3942,3948
++---+---	-----	--+-+--+	--+-+--	3901,3948 = 390104,3948 = 390109,3948 =
				3948,3948
++---+---	-----	--+-+--+	-----++-	3934,3935 = 3934,3952
++---+---	-----	--+-+--+	-----++-	3901,3934 = 390104,3934 = 390109,3934
++---+---	-----	--+-+--+	-----++-	3930,3935 = 3930,3952
++---+---	-----	--+-+--+	-----++-	3935,3941 = 3935,3942 = 3941,3952 =
				3942,3952
++---+---	-----	--+-+--+	-----+-	3901,3935 = 3901,3952 = 390104,3935 =
				390104,3952 = 390109,3935 = 390109,3952
				= 3935,3935 = 3935,3952
++---+---	-----	--+-+--+	-----+-	3901,3930 = 390104,3930 = 390109,3930
++---+---	-----	--+-+--+	-----+-	3901,3941 = 3901,3942 = 390104,3941 =
				390104,3942 = 390109,3941 = 390109,3942
				= 3941,3941 = 3941,3942
++---+---	-----	--+-+--+	-----	3901,3901 = 3901,390104 = 3901,390109
++---+---	-----	--+-+--+	-----	390104,390104 = 390104,390109
++-----	-+-----	--+-+---	-----	390109,391901 = 391901,391901
+--+++--	--+-+--	+--+++--	-----	3908,3910 = 3908,3920
+--+++--	--+-+--	+--+++--	-----	390202,3908 = 3908,3908 = 3908,3913
+--+++--	--+-+--	+--+++--	-----	3910,3949 = 3920,3949
+--+++--	--+-+--	+--+++--	-----	390202,3949 = 3913,3949 = 3949,3949
+--+++--	--+-+--	+--+++--	-----	390202,3920 = 3910,3913 = 3913,3920
+--+++--	--+-+--	+--+++--	-----	390202,3913 = 3913,3913
+--+++--	--+-+--	+--+++--	-----	3910,3920 = 3920,3920
+--+++--	--+-+--	+--+++--	-----	390201,3954 = 390202,3954
+--+++--	--+-+--	+--+++--	-----	390201,3952 = 390202,3952
+--+++--	--+-+--	+--+++--	-----	390201,3939 = 390202,3939
+--+++--	--+-+--	+--+++--	-----	390201,390201 = 390201,390202
+--+++--	--+-+--	+--+++--	-----	390202,3923 = 3923,3923
+-----+	-----+	--+-+---	-----	3910,3917 = 3917,3917
-++-+---	-----	--+-+--+	-----+-	3930,3943 = 3943,3943
-++-+--+	+-----	--+-+--+	-----	3906,3947 = 3906,3950
-++-+--+	-----	--+-+--+	-----+-	3930,3950 = 3934,3947 = 3934,3950
-++-+--+	-----	--+-+--+	-----	3947,3950 = 3950,3950
-++-+---	+-----	--+-+--+	-----+-	3906,3930 = 3906,3934
-++-+---	--+-+---	--+-+--+	--+-+---	3932,3933 = 3932,3936
-++-+---	--+-+---	--+-+--+	--+-+---	3933,3933 = 3933,3936
-++-+---	-----	--+-+--+	-----+-	3930,3934 = 3934,3934

3901 = 39010101,390103, 390106-390108 and 390110
3906 = 390601-390602
3913 = 391301-391302

SPECIFICITY TABLE

HLA-B*39 SSP subtyping

Specificities and sizes of the PCR products of the 32 primer mixes used for HLA-B*39 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-B*39 alleles ³	Other amplified HLA-Class I alleles ⁴
1	230 bp	800 bp	*39010101, 39010102L, 390103-3905, 3907-3920, 3922- 3929, 3931, 3935, 3937-3941, 3944- 3946, 3948, 3949, 3951-3954	*1569, 380101-3807, 3809, 3811-3814, 3816-3819, 5820, 670101-6702
2	170 bp	1070 bp	*39010101, 39010102L, 390103-390110, 3903-3907, 3909, 3911, 3912, 3914, 3915, 3918- 391902, 3922, 3924-3938Q, 3940N-3948, 3950, 3951, 3953	*0769, 0785, 1401-1416, 1509, 1510, 151801-151803, 1523, 1537, 1551, 1552, 1572, 1580, 1590, 1593, 1599, 9508, 9514, 9515, 9519, 9524, 9533, 9534, 9553, 9561, 9576, 1833, 380101-380202, 3804, 3805, 3808-3815, 3817-3820
3	200 bp	800 bp	*3905, 3907, 3908, 3911, 391301, 391302, 3920, 3937, 3943, 3949	*0716, 0727, 0737, 0738, 0750, 0775, 0791, 0803, 0823, 1414, 150301-150303, 1509, 1510, 151801-151803, 1523, 1529, 1537-153802, 1547, 1549, 1551, 1552, 1554, 1562, 1564, 1568, 1569, 1572, 1574, 1580, 1590, 1591, 1593, 1598, 1599, 9503, 9508, 9514, 9515, 9519, 9523, 9524, 9527, 9531-9534, 9551, 9553, 9556, 9558, 9561, 9573, 9576, 180101-1815, 1817N-1845, 3521, 3524, 3525, 370101-3719, 380101- 380202, 3804-3812, 3815, 3817-3820, 4012, 4211,

Lot No.: **67G**

Lot-specific information

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				480101-4820, 5137, 5145, 5163, 5216, 5302, 5306, 5714, 5809, 5812
4^{5,9}	145, 385 bp	1070 bp	*3926, 3951	
5⁵	105 bp	800 bp	*39010101, 39010102L, 390103-390108, 390110, 390201, 3903-3909, 3911, 3912, 3914, 3915, 3918, 391902, 3922, 3924-3948, 3950-3954	*1401-140202, 1403-1416, 3526, 670101
6	170 bp	800 bp	*390201, 390202, 3908, 391301, 391302, 3923, 3939, 3949	*0727, 0750, 0804, 0817, 150301-150303, 1547, 1554, 1561, 1562, 1564, 1568, 1569, 1591, 1598, 9503, 9523, 9527, 9531, 9532, 9551, 9556, 9558, 9573, 180101-1803, 1805, 1806, 1808-1815, 1817N-1828, 1830-1832, 1834-1845, 370101-3719, 3803, 4012, 4211, 480101-4805, 4807- 4820, 5216
7^{6,10}	165, 220 bp	1070 bp	*3903, 3914, 3917, 3924, 3929, 3937	*3819
8¹¹	180, 405 bp	1070 bp	*3904, 3946, 3947, 3950	*1411, 3526, 4036, 4077, 4086, 4807
9⁶	230 bp	1070 bp	*390601, 390602	
10^{5,12}	105, 165 bp	800 bp	*3907, 391901, 391902	*1569, 1833, 3535, 3582, 3585, 5122, 7803
11⁸	170 bp	1070 bp	*3908, 3911, 3918, 3933, 3936, 3940N, 3953	*0778, 1318, 1558, 1573, 5410, 5509, 5521, 5537, 5619N
12	175 bp	800 bp	*3907, 3915, 3929, 3949	*1569, 3535
13^{5,6,13}	85, 385 bp	800 bp	*3923, 3927, 3944, 3951	
14⁵	80 bp	1070 bp	*3910, 3916, 3917, 3920	*070201-0707, 0709, 0711, 0712, 0714-0726, 0728- 0731, 0733-0735, 0737, 0739-0749N, 0751-0768, 0770-0780, 0782, 0784, 0786-0799, 151101-151104, 1576, 9501, 9543, 9548,

Lot No.: **67G**

Lot-specific information

www.olerup-ssp.com

				9552, 3576, 4061, 420101-4202, 4204-4210, 4212, 4213, 4506, 5401-5411, 5413-5419, 550101-5505, 5507-5517, 5519-5533, 5535-5538, 560101-5606, 5609-5613, 5615-5620, 5622-5626, 670101, 670102, 8101-8104N, 8201, 8202, 8301
15 ^{5,7,14}	145, 190 bp	800 bp	*3912, 3931, 3938Q, 3954	
16 ^{8,12,15}	165, 220 bp	800 bp	*3909, 3914, 3916, 3929	
17	180 bp	800 bp	*3925N	
18	160 bp	800 bp	*390201, 390202, 3908, 391301, 391302, 3922, 3923, 3949	*0817, 0838, 150301-150303, 1547, 1549, 1554, 1561, 1562, 1568, 1569, 1574, 1591, 1598, 9503, 9523, 9527, 9531, 9532, 9551, 9556, 9558, 9573, 1812, 370101-3707, 3709-3719, 3803, 3804, 4012, 4211, 480101-4805, 4807-4815, 4817-4820, 5216
19	385 bp	1070 bp	*39010101, 39010102L, 390103-390110, 3903-3907, 3909-3912, 3914-3920, 3924-3948, 3950-3954	*070201-0712, 0714-0753, 0755-0764, 0766-0799, 080101-0809, 0811-0816, 0818-0837, 0839-0847, 1401-1403, 1405-1416, 380101-380202, 3805-3820, 4025 [?] , 4068 [?] , 420101-4202, 4204-4210, 4212, 4213, 4806, 670101, 670102, 7301, 8102
20 ^{5,7,16}	100, 215 bp	800 bp	*390105, 3909, 3918, 3927	*1569
21	220 bp	800 bp	*39010101, 39010102L, 390103-390202, 3904, 3905, 3907-391302, 3915, 3917-3920, 3922, 3923, 3925N-3927, 3931, 3935, 3938Q-3941, 3942 ^w , 3944-3946,	*1569, 380101-3807, 3808 ^w , 3809, 3811-3818, 5820, 670101-6702

Lot No.: **67G**

Lot-specific information

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			3948, 3949, 3951-3954	
22 ^{5,6,17}	150, 225 bp	800 bp	*3928, 3945	
23 ^{5,7}	85 bp	800 bp	*39010101, 39010102L, 390103, 390105-390108, 390110, 390201, 3903, 3904, 390601, 390602, 3909, 3912, 3914, 3915, 3918, 391902, 3922, 3924-3936, 3938Q-3948, 3950-3954	*1401-140202, 1403-1413, 1415, 1416, 3814 ^w , 670101
24 ⁷	185 bp	1070 bp	*39010101, 39010102L, 390103-390108, 390110, 390201, 3903, 3905-3909, 3911, 3914, 3915, 3918, 391902, 3922, 3924-3930, 3931 ^w , 3932-3944, 3946-3948, 3950-3954	*1401, 1407N, 1408, 1410, 1412, 1414, 380101-3803, 3807-3820, 670101
25	235 bp	1070 bp	*39010102L	
26 ⁸	265 bp	800 bp		*1401-1404, 1407N, 1409, 1411, 1412, 1414-1416, 1844, Cw*0130
27 ^{5,18}	70, 195 bp	800 bp	*3932, 3938Q, 3948	*1315, 3596, 511301, 511302, 5119, 5162, 5214
28 ⁸	180 bp	1070 bp	*3932, 3933, 3940N	*1303, 1558, 1573, 9533, 350301, 350302, 3506, 3513, 3536, 3538, 3555, 3556, 3559, 3570, 3574, 3575, 3584, 3585, 3598, 4071, 4410, 4611, 511301, 511302, 5115, 5162, 5214, 5304, 5403, 560101-5602, 5604, 5607, 5608, 5611, 5613, 5614, 5616, 5617, 5619N, 5620, 5622, 5624-5626, 5904, 8201, 8202, Cw*1515

29	245 bp	800 bp	*390601, 390602, 3934, 3950	*0778, 0784, 0809, 130201- 130206, 1308Q, 1309, 1314- 1316, 1318, 1319, 1327, 1330, 1542, 1583, 2714, 3560, 40060101-400602, 4044, 4053, 4070, 4075, 4083, 4086, 4093, 4095, 4096, 4101, 4105-4107, 4109, 4112, 4204, 4508, 4510, 4618, 4907, 5110, 5116, 5121, 5131, 5134, 5136, 5182, 5208, 5401, 5402, 5404, 5405N, 5407, 5408N, 5410-5419, 550101- 5503, 5505, 5507, 5509- 5513, 5515-5538, 5623, 5901-5903, 5905, 7301
30^{5,8,19}	60, 180 bp	800 bp	*3918, 3935, 3952	*1569
31⁸	155 bp	800 bp	*3930, 3934, 3943	*0748, 0813, 0825, 130101- 1304, 1306-1315, 1317, 1319, 1321-1323, 1325- 1330, 1505, 1520, 1531, 1552, 1555, 1586, 1591, 9507, 9514, 9523, 9524, 9551, 9555, 180101-1812, 1814, 1817N, 1818, 1820, 1822-1829, 1831-1845, 2701-2703, 270502-270512, 2707-2709, 2711-2714, 2716, 2717, 2719, 2723, 2726-2739, 2741-2744, 2746, 2748-2753, 2755- 2759N, 350101-3507, 350901-3510, 351201-3513, 3515-3517, 3519-352002, 3522-3534, 3536, 3537, 3539-3542, 3546-3557, 3559, 3560, 3563-3565Q, 356801-3572, 3574-3578, 3581-3585, 3588-3595, 3597, 3598, 3702, 400101- 4004, 40060101-401403, 4018-4022N, 4024, 4025, 4027, 4029-4031, 4033- 4040, 4042-4050, 4052- 4094, 4096, 4097, 440301- 440308, 4407, 4410, 4413,

				4426, 4430-4432, 4436-4440, 4443, 4445-4447, 4450, 4454, 4457, 4460, 4461N, 446401-4465, 4469, 4477, 4481, 4482, 4485, 4606, 4611, 461301, 461302, 4618, 4621, 47010101-4705, 480101-4804, 4806, 4807, 4809-4814, 4816-4818, 4820, 510901-5110, 5115, 5131, 5140, 5142, 5173, 5181, 5203, 5210, 530101-5305, 5307, 5309, 5310, 5312-5315, 5317-5319, 5401-5405N, 5407-5409, 5411-5419, 550201-550205, 5504, 5507, 5508, 5510, 5512, 5513, 5516, 5518, 5519, 5522, 5523, 5526, 5527, 5530, 5532, 5534, 5535, 560101-5602, 5604, 5607-5612, 5614-5620, 5622-5624, 5626, 570101-570105, 570301, 570302, 5706-5708, 5710, 5711, 5714-5718, 5720, 5721, 5723, 5725, 5726, 580101-5802, 5804, 5807, 5809-5818, 5821, 5823, 5824, 5901-5905, 7804, 8101-8104N
32	230 bp	800 bp	*3903 ^w , 3914 ^w , 3924, 3929 ^w , 3937 ^w , 3941, 3942	*3535, 3819 ^w , 3820

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*39 SSP subtypings.

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 bp or more. Size differences shorter than 20 bp are not given. For high resolution SSP kits the length of the specific PCR product(s) of the alleles amplified by these primer mixes are given.

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

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

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*39 subtyping.

In addition, wells number 3, 5, 6, 10, 12, 13, 15 to 18, 20 to 23, 26, 27, 29 to 32 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 many HLA-B alleles complete 4th 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 4th exon are conserved within allelic groups.

The B*3910 and B*670102 alleles will give rise to identical amplification patterns with the HLA-B*39 subtyping kit. These two alleles can be distinguished by the HLA-B low resolution and/or HLA-B*67 kits.

⁴Due to the sharing of sequence motifs between HLA-B alleles, non-HLA-B*39 alleles will be amplified by primer mixes 1 to 3, 5, 6, 8, 10 to 12, 14, 18 to 21, 23, 24, 26 to 32. In addition, the Cw*0130 allele will be amplified by primer mix 26 and the Cw*1515 allele will be amplified by primer mix 28.

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

⁶The primer pairs in primer mix 7, 9, 13 and 22 may give rise to a primer oligomer artifact.

⁷Primer solutions 15, 20, 23 and 24 may yield less specific PCR product than the other HLA-B*39 primer mixes, in primer mix 15 notably for the B*3931 allele.

⁸Primer mixes 11, 16, 26, 28, 30 and 31 have a tendency of giving rise to non-specific amplifications.

⁹Primer mix 4: Specific PCR fragment of 145 bp in the B*3926 allele. Specific PCR fragment of 385 bp in the B*3951 allele.

¹⁰Primer solution 7: Specific PCR fragment of 165 bp in the B*3917 allele. Specific PCR fragment of 220 bp in the B*3903, B*3914, B*3924, B*3929 and B*3937 and in the B*3817 alleles.

¹¹Primer solution 8: Specific PCR fragment of 180 bp in the B*3904, B*3947 and B*3950 and in the B*1411, B*3526, B*4036, B*4077, B*4086 and B*4807 alleles. Specific PCR fragment of 405 bp in the B*3946 allele.

¹²Primer solution 10: Specific PCR fragment of 105 bp in the B*391901-391902 and in the B*1833, B*3582, B*3585, B*5122 and B*7803 alleles. Specific PCR fragment of 165 bp in the B*3907 and in the B*1569 and B*3535, alleles.

¹³Primer mix 13: Specific PCR fragment of 85 bp in the B*3923, B*3927 and B*3944 alleles. Specific PCR fragment of 385 bp in the B*3951 allele.

¹⁴Primer mix 15: Specific PCR fragment of 145 bp in the B*3954 allele. Specific PCR fragments of 190 bp in the B*3912, B*3931 and B*3938Q alleles.

¹⁵Primer solution 16: Specific PCR fragment of 165 bp in the B*3914 and B*3929 alleles. Specific PCR fragment of 220 bp in the B*3909 and B*3916 alleles.

¹⁶Primer solution 20: Specific PCR fragment of 100 bp in the B*390105, B*3918 and B*3927 and in the B*1569 alleles. Specific PCR fragment of 215 bp in the B*3909 allele.

¹⁷Primer solution 22: Specific PCR fragment of 150 bp in the B*3945 allele. Specific PCR fragment of 225 bp in the B*3928 allele.

¹⁸Primer mix 27: Specific PCR fragment of 70 bp in the B*5119 alleles. Specific PCR fragment of 195 bp in the B*1315, B*3596, B*511301-511302, B*5162 and B*5214 alleles. Specific PCR fragments of 70 and 195 bp in the B*3932, B*3938Q and B*3948 alleles (please observe that both specific PCR fragments may not be obtained).

¹⁹Primer mix 30: Specific PCR fragment of 60 bp in the B*3918 and B*3935 and in the B*1569 alleles. Specific PCR fragment of 180 bp in the B*3952 allele.

‘w’, might be weakly amplified.

‘?’ , nucleotide sequence information not available for the primer matching sequence.

INTERPRETATION TABLE**HLA-B*39 SSP subtyping****Amplification patterns of the B*3901 to 3955 alleles**

	Well ⁵															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Length of spec. PCR product(s)	230	170	200	145	105	170	165	180	230	105	170	175	85	80	145	165
Length of int. pos. control ¹	800	1070	800	1070	800	800	1070	1070	1070	800	1070	800	800	1070	800	800
5'-primer(s) ²	355	142	142	246	246	142	363	106	357	206	419	412	246	272	97	360
	5' -CCC	-TCT	-TCT	-gAA	-gAA	-TCT	-AgC	-CCA	-Tgg	-gAC	-gTT	-ATg	-gAA	-CTA	-TCg	-CAC
	355		419	419	246		420	420		419			503		97	368
	5' -CTC	3' -gTC	5' -gTC	-gTT	-gAA	3' -TTA	-TTC	3' -gTC	5' -gTC	3' -CCg	3' -TCC	-gTC				
							646								141	419
							5' -ACg	3' -ATg							419	
															5' -gTT	3' -gTA
3'-primer(s) ³	544	272	292	344	311	272	544	246	544	272	539	544	299	311	246	544
	5' -ggT	-TgC	-gTA	-ACg	-ggT	-Tgg	-ggT	-TAT	-ggT	-TgC	-TCC	-ggT	-TCA	-ggT	-TAT	-ggT
			583	524			559		544	539			344		563	
			5' -gTg	-CAA	3' -CTC	3' -ggT	-TCC	3' -ACg	3' -CgA	3' -gTg	3' -ACT	3' -ggT				
							916		564		544					
							5' -gAC	3' -ACT	3' -ggT	3' -CAT						
										565						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
HLA-B allele ⁴																
*39010101, 390103, 390106-390108, 390110	1	2			5											
*39010102L	1	2			5											
*390104	1	2			5											
*390105	1	2			5											
*390109	1	2														
*390201	1				5	6										
*390202	1					6										
*3903	1	2			5		7									
*3904	1	2			5			8								
*3905	1	2	3		5											
*390601, 390602		2			5				9							
*3907	1	2	3		5					10		12				
*3908	1		3		5	6					11					
*3909	1	2			5											16
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: **67G**

Lot-specific information

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Length of spec.	230	170	200	145	105	170	165	180	230	105	170	175	85	80	145	165
PCR product(s)				385			220	405		165			385		190	220
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*3910, 670102 ⁶	1													14		
*3911	1	2	3		5						11					
*3912	1	2			5										15	
*391301, 391302	1		3			6										
*3914	1	2			5		7									16
*3915	1	2			5							12				
*3916	1													14		16
*3917	1						7							14		
*3918	1	2			5						11					
*391901	1	2								10						
*391902	1	2			5					10						
*3920	1		3											14		
*3922	1	2			5											
*3923	1					6								13		
*3924	1	2			5		7									
*3925N	1	2			5											
*3926	1	2		4	5											
*3927	1	2			5									13		
*3928	1	2			5											
*3929	1	2			5		7					12				16
*3930		2			5											
*3931	1	2			5										15	
*3932		2			5											
*3933		2			5						11					
*3934		2			5											
*3935	1	2			5											
*3936		2			5						11					
*3937	1	2	3		5		7									
*3938Q	1	2			5										15	
*3939	1				5	6										
*3940N	1	2			5						11					
*3941	1	2			5											
*3942		2			5											
*3943		2	3		5											
*3944	1	2			5									13		
*3945	1	2			5											
*3946	1	2			5			8								
*3947		2			5			8								
*3948	1	2			5											
*3949	1		3			6						12				
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: **67G**

Lot-specific information

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180	160	385	100	220	150	85	185	235	265	70	180	245	60	155	230	Length of spec.
			215		225					195			180			PCR product(s)
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
		19		21												*3910, 670102 ⁶
		19		21			24									*3911
		19		21		23										*3912
	18			21												*391301, 391302
		19				23	24								w	*3914
		19		21		23	24									*3915
		19														*3916
		19		21												*3917
		19	20	21		23	24						30			*3918
		19		21												*391901
		19		21		23	24									*391902
		19		21												*3920
	18			21		23	24									*3922
	18			21												*3923
		19				23	24								32	*3924
17		19		21		23	24									*3925N
		19		21		23	24									*3926
		19	20	21		23	24									*3927
		19			22	23	24									*3928
		19				23	24								w	*3929
		19				23	24							31		*3930
		19		21		23	w									*3931
		19				23	24			27	28					*3932
		19				23	24			28						*3933
		19				23	24					29		31		*3934
		19		21		23	24						30			*3935
		19				23	24									*3936
		19				24									w	*3937
		19		21		23	24			27						*3938Q
		19		21		23	24									*3939
		19		21		23	24				28					*3940N
		19		21		23	24								32	*3941
		19		w		23	24								32	*3942
		19				23	24							31		*3943
		19		21		23	24									*3944
		19		21	22	23										*3945
		19		21		23	24									*3946
		19				23	24									*3947
		19		21		23	24			27						*3948
	18			21												*3949
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Lot No.: **67G**

Lot-specific information

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Length of spec.	230	170	200	145	105	170	165	180	230	105	170	175	85	80	145	165
PCR product(s)				385			220	405		165			385		190	220
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*3950		2			5			8								
*3951	1	2		4	5								13			
*3952	1				5											
*3953	1	2			5						11					
*3954	1				5										15	
*070201-0707, 0709, 0711, 0712, 0714, 0715, 0717-0726, 0728-0731, 0733-0735, 0739-0747, 0749N, 0751-0753, 0755-0764, 0766-0768, 0770-0774, 0776, 0777, 0779, 0780, 0782, 0786-0790, 0792-0799, 420101-4202, 420501-4210, 4212, 4213														14		
*0708, 0710, 0732, 0736, 0781, 0783, 080101-0802, 0805-0808N, 0811-081203, 0814-0816, 0818-0822, 0824, 0826-0837, 0839-0847																
*0716, 0737, 0775, 0791			3											14		
*0727, 0750			3			6										
*0738, 0803, 0823			3													
*0748, 8102														14		
*0754, 0765, 151101-151104, 1576, 9501, 9543, 9548, 9552, 4506, 5406, 5514, 5603, 560501-5606, 8301														14		
*0769, 0785		2														
*0778											11			14		
*0784, 4204														14		
*0804						6										
*0809, 7301																
*0813, 0825																
*0817, 1561						6										
*0838																
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: **67G**

Lot-specific information

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180	160	385	100	220	150	85	185	235	265	70	180	245	60	155	230	Length of spec.
			215		225					195			180			PCR product(s)
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
		19				23	24					29				*3950
		19		21		23	24									*3951
		19		21		23	24						30			*3952
		19		21		23	24									*3953
		19		21		23	24									*3954
19																*070201-0707, 0709, 0711, 0712, 0714, 0715, 0717- 0726, 0728-0731, 0733- 0735, 0739-0747, 0749N, 0751-0753, 0755-0764, 0766-0768, 0770-0774, 0776, 0777, 0779, 0780, 0782, 0786-0790, 0792- 0799, 420101-4202, 420501-4210, 4212, 4213
		19														*0708, 0710, 0732, 0736, 0781, 0783, 080101-0802, 0805-0808N, 0811- 081203, 0814-0816, 0818- 0822, 0824, 0826-0837, 0839-0847
		19														
		19														*0716, 0737, 0775, 0791
		19														*0727, 0750
		19														*0738, 0803, 0823
		19												31		
																*0754, 0765, 151101- 151104, 1576, 9501, 9543, 9548, 9552, 4506, 5406, 5514, 5603, 560501-5606, 8301
		19														*0769, 0785
		19										29				*0778
		19										29				*0784, 4204
		19														*0804
		19										29				*0809, 7301
19												31				*0813, 0825
	18															*0817, 1561
	18															*0838
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Lot No.: **67G**

Lot-specific information

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Length of spec.	230	170	200	145	105	170	165	180	230	105	170	175	85	80	145	165
PCR product(s)				385			220	405		165			385		190	220
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*130101, 130102, 1304, 1306, 1307N, 1310-1313, 1317, 1321-1323, 1325, 1326, 1328, 1329, 1505, 1520, 1531, 1555, 1586, 9507, 9555, 2701-2703, 270502-270512, 2707- 2709, 2711-2713, 2716, 2717, 2719, 2723, 2726- 2739, 2741-2744, 2746, 2748-2753, 2755-2759N, 350101-350203, 350401- 3505, 3507, 350901-3510, 351201, 351202, 3515- 3517, 3519-352002, 3522, 3523, 3527-3534, 3537, 3539-3542, 3546-3554, 3557, 3563-3565Q, 356801-3569, 3571, 3572, 3577, 3578, 3581, 3583, 3588-3595, 3597, 400101- 4004, 4007-4011, 4013- 401403, 4018-4022N, 4024, 4027, 4029-4031, 4033-4035, 4037-4040, 4042, 4043,																
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: **67G**

Lot-specific information

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180	160	385	100	220	150	85	185	235	265	70	180	245	60	155	230	Length of spec.
			215		225					195			180			PCR product(s)
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
														31		*130101, 130102, 1304, 1306, 1307N, 1310-1313, 1317, 1321-1323, 1325, 1326, 1328, 1329, 1505, 1520, 1531, 1555, 1586, 9507, 9555, 2701-2703, 270502-270512, 2707- 2709, 2711-2713, 2716, 2717, 2719, 2723, 2726- 2739, 2741-2744, 2746, 2748-2753, 2755-2759N, 350101-350203, 350401- 3505, 3507, 350901-3510, 351201, 351202, 3515- 3517, 3519-352002, 3522, 3523, 3527-3534, 3537, 3539-3542, 3546-3554, 3557, 3563-3565Q, 356801-3569, 3571, 3572, 3577, 3578, 3581, 3583, 3588-3595, 3597, 400101- 4004, 4007-4011, 4013- 401403, 4018-4022N, 4024, 4027, 4029-4031, 4033-4035, 4037-4040, 4042, 4043,
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Length of spec.	230	170	200	145	105	170	165	180	230	105	170	175	85	80	145	165
PCR product(s)				385			220	405		165			385		190	220
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4045-4050, 4052, 4054-4060, 4062-4067, 4069, 407201-4074, 4076, 4078-4082, 4084, 4085, 4087-4092, 4094, 4097, 440301-440308, 4407, 4413, 4426, 4430-4432, 4436-4440, 4443, 4445-4447, 4450, 4454, 4457, 4460, 4461N, 446401-4465, 4469, 4477, 4481, 4482, 4485, 4606, 461301, 461302, 4621, 47010101-4705, 510901, 510902, 5140, 5142, 5173, 5181, 5203, 5210, 530101-530105, 5303, 5305, 5307, 5309, 5310, 5312-5315, 5317-5319, 570101-570105, 570301, 570302, 5706-5708, 5710, 5711, 5715-5718, 5720, 5721, 5723, 5725, 5726, 580101-5802, 5804, 5807, 5810N, 5811, 5813-5818, 5821, 5823, 5824, 7804																
*130201-130206, 1308Q, 1309, 1314, 1319, 1327, 1330, 2714, 3560, 40060101-400602, 4044, 4053, 4070, 4075, 4083, 4093, 4096, 4618, 5110, 5131, 5412, 5518, 5534, 5901-5903, 5905																
*1303, 350301, 350302, 3506, 3513, 3536, 3555, 3556, 3559, 3570, 3574, 3575, 3584, 3598, 4071, 4410, 4611, 5115, 5304, 5607, 5608, 5614, 5904																
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: **67G**

Lot-specific information

www.olerup-ssp.com

180	160	385	100	220	150	85	185	235	265	70	180	245	60	155	230	Length of spec.
			215		225					195			180			PCR product(s)
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
												31				4045-4050, 4052, 4054-4060, 4062-4067, 4069, 407201-4074, 4076, 4078-4082, 4084, 4085, 4087-4092, 4094, 4097, 440301-440308, 4407, 4413, 4426, 4430-4432, 4436-4440, 4443, 4445-4447, 4450, 4454, 4457, 4460, 4461N, 446401-4465, 4469, 4477, 4481, 4482, 4485, 4606, 461301, 461302, 4621, 47010101-4705, 510901, 510902, 5140, 5142, 5173, 5181, 5203, 5210, 530101-530105, 5303, 5305, 5307, 5309, 5310, 5312-5315, 5317-5319, 570101-570105, 570301, 570302, 5706-5708, 5710, 5711, 5715-5718, 5720, 5721, 5723, 5725, 5726, 580101-5802, 5804, 5807, 5810N, 5811, 5813-5818, 5821, 5823, 5824, 7804
												29		31		*130201-130206, 1308Q, 1309, 1314, 1319, 1327, 1330, 2714, 3560, 40060101-400602, 4044, 4053, 4070, 4075, 4083, 4093, 4096, 4618, 5110, 5131, 5412, 5518, 5534, 5901-5903, 5905
								28				31				*1303, 350301, 350302, 3506, 3513, 3536, 3555, 3556, 3559, 3570, 3574, 3575, 3584, 3598, 4071, 4410, 4611, 5115, 5304, 5607, 5608, 5614, 5904
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Lot No.: **67G**

Lot-specific information

www.olerup-ssp.com

Length of spec.	230	170	200	145	105	170	165	180	230	105	170	175	85	80	145	165
PCR product(s)				385			220	405		165			385		190	220
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*1315																
*1316, 1542, 1583, 4095, 4101, 4105-4107, 4109, 4112, 4508, 4510, 4907, 5116, 5121, 5134, 5136, 5182, 5208																
*1318											11					
*1401, 1407N, 1412		2			5											
*140201, 140202, 1403, 1409, 1415, 1416		2			5											
*140203		2														
*1404		2			5											
*1405-140602, 1413		2			5											
*1408, 1410		2			5											
*1411		2			5			8								
*1414		2	3		5											
*150301-150303, 1547, 1554, 1562, 1568, 1598, 9503, 9527, 9531, 9532, 9556, 9558, 9573, 370101-370107, 3703N-3707, 3709-3719, 4211, 4805, 4808, 4815, 4819, 5216			3		6											
*1509, 1510, 151801-151803, 1523, 1537, 1551, 1572, 1580, 1590, 1593, 1599, 9508, 9515, 9519, 9534, 9553, 9561, 9576		2	3													
*1529, 153801, 153802, 3521, 5137, 5145, 5163, 5306			3													
*1549, 1574			3													
*1552, 9514, 9524		2	3													
*1558, 1573											11					
*1564, 1813, 1815, 1819, 1821, 1830, 3708			3		6											
*1569	1		3			6				10		12				
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: **67G**

Lot-specific information

www.olerup-ssp.com

180	160	385	100	220	150	85	185	235	265	70	180	245	60	155	230	Length of spec.
			215		225					195			180			PCR product(s)
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
										27		29		31		*1315
												29				*1316, 1542, 1583, 4095, 4101, 4105-4107, 4109, 4112, 4508, 4510, 4907, 5116, 5121, 5134, 5136, 5182, 5208
												29				*1318
		19				23	24		26							*1401, 1407N, 1412
		19				23			26							*140201, 140202, 1403, 1409, 1415, 1416
		19							26							*140203
						23			26							*1404
		19				23										*1405-140602, 1413
		19				23	24									*1408, 1410
		19				23			26							*1411
		19					24		26							*1414
																*150301-150303, 1547, 1554, 1562, 1568, 1598, 9503, 9527, 9531, 9532, 9556, 9558, 9573, 370101- 370107, 3703N-3707, 3709-3719, 4211, 4805, 4808, 4815, 4819, 5216
																*1509, 1510, 151801- 151803, 1523, 1537, 1551, 1572, 1580, 1590, 1593, 1599, 9508, 9515, 9519, 9534, 9553, 9561, 9576
																*1529, 153801, 153802, 3521, 5137, 5145, 5163, 5306
		18														*1549, 1574
														31		*1552, 9514, 9524
											28					*1558, 1573
																*1564, 1813, 1815, 1819, 1821, 1830, 3708
	18		20	21									30			*1569
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Lot No.: **67G**

Lot-specific information

www.olerup-ssp.com

Length of spec.	230	170	200	145	105	170	165	180	230	105	170	175	85	80	145	165
PCR product(s)				385			220	405		165			385		190	220
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*1591, 9523, 9551, 1812, 3702, 4012, 480101-4804, 4809-4814, 4817, 4818, 4820			3			6										
*9533		2	3													
*180101-1803, 1805, 1806, 1808-1811, 1814, 1817N, 1818, 1820, 1822-1828, 1831, 1832, 1834-1843, 1845, 4816			3			6										
*1804, 180701, 180702, 1829, 3524, 3525, 5302, 5714, 5809, 5812			3													
*1833		2	3							10						
*1844			3			6										
*3526					5			8								
*3535										10		12				
*3538, <i>Cw*1515</i>																
*3576, 4061, 5409, 5504, 5508, 5609, 5610, 5612, 5615, 5618, 8101, 8103, 8104N														14		
*3582										10						
*3585										10						
*3596, 5119																
*380101-380202, 3809, 3811, 3812, 3817, 3818	1	2	3													
*3803	1					6										
*3804	1	2	3													
*3805	1	2	3													
*3806	1		3													
*3807	1		3													
*3808		2	3													
*3810		2	3													
*3813	1	2														
*3814	1	2														
*3815		2	3													
*3816	1															
*3819	1	2	3			7										
*3820		2	3													
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: **67G**

Lot-specific information

www.olerup-ssp.com

180	160	385	100	220	150	85	185	235	265	70	180	245	60	155	230	Length of spec.
			215		225					195			180			PCR product(s)
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
18												31				*1591, 9523, 9551, 1812, 3702, 4012, 480101-4804, 4809-4814, 4817, 4818, 4820
										28						*9533
												31				*180101-1803, 1805, 1806, 1808-1811, 1814, 1817N, 1818, 1820, 1822-1828, 1831, 1832, 1834-1843, 1845, 4816
														31		*1804, 180701, 180702, 1829, 3524, 3525, 5302, 5714, 5809, 5812
												31				*1833
								26						31		*1844
												31				*3526
															32	*3535
								28								*3538, Cw*1515
														31		*3576, 4061, 5409, 5504, 5508, 5609, 5610, 5612, 5615, 5618, 8101, 8103, 8104N
												31				*3582
										28				31		*3585
								27								*3596, 5119
		19		21			24									*380101-380202, 3809, 3811, 3812, 3817, 3818
	18			21			24									*3803
	18			21												*3804
19				21												*3805
		19		21												*3806
		19		21			24									*3807
		19		w			24									*3808
19							24									*3810
		19		21			24									*3813
		19		21		w	24									*3814
		19		21			24									*3815
19				21			24									*3816
		19					24								w	*3819
		19					24								32	*3820
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Lot No.: **67G**

Lot-specific information

www.olerup-ssp.com

Length of spec.	230	170	200	145	105	170	165	180	230	105	170	175	85	80	145	165
PCR product(s)				385			220	405		165			385		190	220
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*4025, 4068																
*4036, 4077								8								
*4086								8								
*4806			3													
*4807			3			6		8								
*511301, 511302, 5162, 5214																
*5122, 7803										10						
*5401, 5402, 5404, 5405N, 5407, 5408N, 5411, 5413-5419, 550201-550205, 5507, 5510, 5512, 5513, 5516, 5519, 5522, 5523, 5526, 5527, 5530, 5532, 5535, 5623														14		
*5403, 560101-5602, 5604, 5611, 5616, 5617, 5620, 5622, 5624, 5626														14		
*5410, 5509, 5521, 5537											11			14		
*550101-550106, 5503, 5505, 5511, 5515, 5517, 5520, 5524, 5525, 5528, 5529, 5531, 5533, 5536, 5538														14		
*5613, 5625, 8201, 8202														14		
*5619N											11			14		
*5820, 6702	1															
*670101	1				5									14		
HLA-B allele ⁴																
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cw*0130																
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

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*39 subtyping.

In addition, wells number 3, 5, 6, 10, 12, 13, 15 to 18, 20 to 23, 26, 27, 29 to 32 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.

Lot No.: **67G**

Lot-specific information

www.olerup-ssp.com

180	160	385	100	220	150	85	185	235	265	70	180	245	60	155	230	Length of spec.
			215		225					195			180			PCR product(s)
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
		?												31		*4025, 4068
														31		*4036, 4077
												29		31		*4086
		19												31		*4806
	18													31		*4807
										27	28					*511301, 511302, 5162, 5214
																*5122, 7803
												29		31		*5401, 5402, 5404, 5405N, 5407, 5408N, 5411, 5413-5419, 550201-550205, 5507, 5510, 5512, 5513, 5516, 5519, 5522, 5523, 5526, 5527, 5530, 5532, 5535, 5623
											28			31		*5403, 560101-5602, 5604, 5611, 5616, 5617, 5620, 5622, 5624, 5626
												29				*5410, 5509, 5521, 5537
												29				*550101-550106, 5503, 5505, 5511, 5515, 5517, 5520, 5524, 5525, 5528, 5529, 5531, 5533, 5536, 5538
											28					*5613, 5625, 8201, 8202
											28			31		*5619N
				21												*5820, 6702
		19		21		23	24									*670101
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	HLA-B allele ⁴
																Well No.
									26							Cw*0130
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

²The nucleotide position, in the 1st, 2nd, 3rd or 4th exon matching the specificity-determining 3'-end of the primer is given. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

³The nucleotide position, in the 1st, 2nd, 3rd or 4th exon 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.

⁴The nucleotide sequence of the B*390102 allele has been shown to be identical B*390101. The nucleotide sequence of the B*3921 allele has been shown to be identical B*3924.

Lot No.: **67G**

Lot-specific information

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⁵Primer mix 4: Specific PCR fragment of 145 bp in the B*3926 allele. Specific PCR fragment of 385 bp in the B*3951 allele.

Primer solution 7: Specific PCR fragment of 165 bp in the B*3917 allele. Specific PCR fragment of 220 bp in the B*3903, B*3914, B*3924, B*3929 and B*3937 and in the B*3817 alleles.

Primer solution 8: Specific PCR fragment of 180 bp in the B*3904, B*3947 and B*3950 and in the B*1411, B*3526, B*4036, B*4077, B*4086 and B*4807 alleles. Specific PCR fragment of 405 bp in the B*3946 allele.

Primer solution 10: Specific PCR fragment of 105 bp in the B*391901-391902 and in the B*1833, B*3582, B*3585, B*5122 and B*7803 alleles. Specific PCR fragment of 165 bp in the B*3907 and in the B*1569 and B*3535, alleles.

Primer mix 13: Specific PCR fragment of 85 bp in the B*3923, B*3927 and B*3944 alleles. Specific PCR fragment of 385 bp in the B*3951 allele.

Primer mix 15: Specific PCR fragment of 145 bp in the B*3954 allele. Specific PCR fragments of 190 bp in the B*3912, B*3931 and B*3938Q alleles.

Primer solution 16: Specific PCR fragment of 165 bp in the B*3914 and B*3929 alleles. Specific PCR fragment of 220 bp in the B*3909 and B*3916 alleles.

Primer solution 20: Specific PCR fragment of 100 bp in the B*390105, B*3918 and B*3927 and in the B*1569 alleles. Specific PCR fragment of 215 bp in the B*3909 allele.

Primer solution 22: Specific PCR fragment of 150 bp in the B*3945 allele. Specific PCR fragment of 225 bp in the B*3928 allele.

Primer mix 27: Specific PCR fragment of 70 bp in the B*5119 alleles. Specific PCR fragment of 195 bp in the B*1315, B*3596, B*511301-511302, B*5162 and B*5214 alleles. Specific PCR fragments of 70 and 195 bp in the B*3932, B*3938Q and B*3948 alleles (please observe that both specific PCR fragments may not be obtained).

Primer mix 30: Specific PCR fragment of 60 bp in the B*3918 and B*3935 and in the B*1569 alleles. Specific PCR fragment of 180 bp in the B*3952 allele.

⁶The B*3910 and B*670102 alleles will give rise to identical amplification patterns with the HLA-B*39 subtyping kit. These two alleles can be distinguished by the HLA-B low resolution and/or HLA-B*67 kits.

‘w’, might be weakly amplified.

‘?’, nucleotide sequence information not available for the primer matching sequence.

CELL LINE VALIDATION SHEET																					
HLA-B*39 SSP subtyping kit																					
					Well																
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				Prod. No.:		200967401	200967402	200967403	200967404	200967405	200967406	200967407	200967408	200967409	200967410	200967411	200967412	200967413	200967414	200967415	200967416
	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	9002	DEU	*3501			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026	YAR	*3801			+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107	LKT3	*5401			-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
11	9051	PITOUT	*440301			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	*440301			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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*39 SSP subtyping kit																																			
					Prod. No.:	Well																													
						17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32														
						200967417	200967418	200967419	200967420	200967421	200967422	200967423	200967424	200967425	200967426	200967427	200967428	200967429	200967430	200967431	200967432														
	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	*440301			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-			
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	*440301			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-			
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*39 SSP**

Product number: 101.566-12u/04u – without *Taq* pol.
Lot number: 67G
Expiry date: 2012-February-01
Number of tests: 12 tests – Product No. 101.566-12u
 4 tests – Product No. 101.566-04u
Number of wells per test: 32

Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2009-674-01	13	2009-674-13	25	2009-674-25
2	2009-674-02	14	2009-674-14	26	2009-674-26
3	2009-674-03	15	2009-674-15	27	2009-674-27
4	2009-674-04	16	2009-674-16	28	2009-674-28
5	2009-674-05	17	2009-674-17	29	2009-674-29
6	2009-674-06	18	2009-674-18	30	2009-674-30
7	2009-674-07	19	2009-674-19	31	2009-674-31
8	2009-674-08	20	2009-674-20	32	2009-674-32
9	2009-674-09	21	2009-674-21		
10	2009-674-10	22	2009-674-22		
11	2009-674-11	23	2009-674-23		
12	2009-674-12	24	2009-674-24		

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 4, 7, 10, 13, 15, 22, 25, 27, 30 and 32 were available. The specificities of the primers in primer solutions 7, 10, 13, 15, 22, 27, 30 and 32 were tested by separately adding one or two additional 5'-primers, respectively one or two additional 3'-primers. In primer solution 4 it was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solution 25 it was only possible to test the 3'-primer, the 5'-primer was not possible to test. Additional primers in primer solutions 3, 8, 16 and 20 were tested by separately adding either 5'- or 3'-primers. One or two 5'-primers in primer solutions 1, 5, 8, 13, 15, 16, 22, 25 and 32 were not possible to test. One or two 3'-primers in primer solutions 4, 11, 13, 15, 22, 27, 28 and 30 were not possible to test.

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

Date of approval: 2011-March-17

Approved by:

Quality Control, Supervisor

Declaration of Conformity

Product name: *Olerup* SSP® HLA-B*39

Product number: 101.566-12u/04u

Lot number: 67G

Intended use: HLA-B*39 histocompatibility testing

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

We, *Olerup* SSP AB, hereby declare that this product, to which this Declaration of Conformity relates is in conformity with the following Standard(s) and other normative document(s) ISO 9001:2008 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.)

Saltsjöbaden, Sweden
2011-March-17

Olle Olerup
Managing Director

Lot No.: **67G**

Lot-specific information

www.olerup-ssp.com**ADDRESSES:****Manufacturer:****Olerup SSP AB**, Hasselstigen 1, SE-133 33 Saltsjöbaden, Sweden.**Tel:** +46-8-717 88 27**Fax:** +46-8-717 88 18**E-mail:** info-ssp@olerup.com**Web page:** <http://www.olerup-ssp.com>**Distributed by:****Olerup GmbH**, Löwengasse 47 / 6, AT-1030 Vienna, Austria.**Tel:** +43-1-710 15 00**Fax:** +43-1-710 15 00 10**E-mail:** support-at@olerup.com**Web page:** <http://www.olerup.com>**Olerup Inc.**, 901 S. Bolmar St., Suite R, West Chester, PA 19382**Tel:** 1-877-OLERUP1**Fax:** 610-344-7989**E-mail:** info.us@olerup.com**Web page:** <http://www.olerup.com>For information on *Olerup* SSP distributors worldwide, contact **Olerup GmbH**.