

Olerup SSP[®] HLA-B*27

Product number:	101.521-24u/04u – without <i>Taq</i> pol.
Lot number:	09F
Expiry date:	2010-September-01
Number of tests:	24 test – Product No. 101.521-24u 4 tests – Product No. 101.521-04u
Number of wells per test:	24
Storage - pre-aliquoted primers:	dark at -20°C
- PCR Master Mix:	-20°C

This Product Description is only valid for Lot No. 09F.

**CHANGES COMPARED TO THE PREVIOUS *OLERUP* SSP[®]
HLA-B*27 Lot**

The HLA-B*27 specificity and interpretation tables have been updated for the HLA-B alleles described since the previous *Olerup* SSP[®] HLA-B*27 lot was made (Lot No. X94).

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

Well	5'-primer	3'-primer	rationale
2	-	Added	Primer added for the B*2739 allele.
10	-	Added	Primer added for the B*2741 allele.
12	Added	Added	Primer pair added for the B*2743 allele.

PRODUCT DESCRIPTION

HLA-B*27 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the B*2701 to B*2743 alleles.

PLATE LAYOUT

Each test consists of 24 PCR reactions in a 24 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

The 24 well cut PCR plate is marked with 'HLA-B*27' in silver/gray ink.

Well No. 1 is marked with the Lot No. '09F'.

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

Please note: When removing each 24 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*27 SSP subtypings will be influenced by thirteen B*07, three B*08, most B*13, sixteen B*15, the B*18, five B*35, the B*37, most B*40, eight B*44, the B*47, most B*48, four B*51, the B*5208, four B*55, two B*57, the B*81 and the B*82 alleles when present on the other haplotype. In addition, the Cw*0334 allele will be amplified by primer mix 16 and the primers in vial 10 will weakly amplify the Cw*0705 allele.

UNIQUELY IDENTIFIED ALLELES

All the HLA-B*27 alleles, i.e. **B*2701 to B*2743**, recognized by the HLA Nomenclature Committee in July 2008¹ will give rise to unique amplification patterns by the primers in the HLA-B*27 subtyping kit.

The HLA-B*27 subtyping kit cannot distinguish the B*270502, B*270503 and B*270505 to B*270510 alleles.

¹HLA-A alleles listed on the IMGT/HLA web page 2008-July-11, release 2.22.0, www.ebi.ac.uk/imgt/hla.

RESOLUTION IN HOMO- AND HETEROZYGOTES

The 42 HLA-B*27 alleles will give rise to 43 different amplification patterns (the B*270504 and the B*270502, B*270503 and B*270505 to B*270510 alleles yield different amplification patterns), that can be combined in 946 homozygous and heterozygous combinations. 401 of these genotypes do not give rise to unique amplification patterns. (The different lengths of the specific PCR products in lanes 2, 12, 14, 18 to 20, 22 and 24 were not considered in these calculations.)

```

++-+-++- - - - - - + - - - - - ++ 2702, 2729 = 2729, 2739
+- - +++++ +- - - - - - - - - - ++ 2707, 2718 = 2718, 2727
+- - +++++ +- - - - - - - - - - ++ 2717, 2718 = 2718, 2734
+- - +++++ +- - - - - - - - - - ++ 2705, 2718 = 2710, 2718 = 2718, 2728 =
                                     2718, 2729 = 2729, 2740
+- - +++++ - - + - - - - - - - - - + 2707, 2723 = 2723, 2727
+- - +++++ - - - - - - - - - - - - + 2717, 2723 = 2723, 2734
+- - +++++ - - - - - - - - - - - - + 2721, 2729 = 2723, 2729
+- - +++++ - - - - - - - - - - - - + 2705, 2723 = 270504, 2723
+- - + - - - - - - + - - - - - - - - + 2707, 2729 = 2727, 2729
+- - + - - - - - - + - - - - - - - - + 2701, 2707 = 2701, 2727
+- - + - - - - - - + - - - - - - - - + 2717, 2729 = 2729, 2734
+- - + - - - - - - + - - - - - - - - + 2701, 2717 = 2701, 2734
+- - + - - - - - - + - - - - - - - - + 2701, 2729 = 2705, 2729 = 270504, 2729 =
                                     2728, 2729 = 2729, 2729
+- - + - - - - - - - - - - - - - - + 2701, 2705 = 2701, 270504
+- - +++++ +- - - - - - - - - - ++ 2711, 2718 = 2718, 2720
+- - +++++ +- - - - - - - - - - ++ 2718, 2731 = 2718, 2737
+- - +++++ +- - - - - - - - - - ++ 2701, 2718 = 2715, 2718 = 2718, 2721 =
                                     2718, 2723
+- - +++++ +- - - - - - - - - - + 2701, 2740 = 2723, 2740
+- - +++++ - - + - - - - - - - - - + 2701, 2733 = 2723, 2733
+- - +++++ - - - - - - - - - - - - + 2701, 2712 = 2712, 2723
+- - +++++ - - - - - - - - - - - - + 2701, 2726 = 2723, 2726
+- - +++++ - - - - - - - - - - - - + 2701, 2708 = 2708, 2723 = 2723, 2742
+- - + - - - - - - + - - - - - - - - + 2701, 2706 = 2706, 2723
+- - + - - - - - - + - - - - - - - - + 2701, 2720 = 2720, 2723
+- - + - - - - - - + - - - - - - - - + 2701, 2704 = 2704, 2723
+- - + - - - - - - + - - - - - - - - + 2701, 2715 = 2715, 2723
+- - + - - - - - - + - - - - - - - - + 2701, 2724 = 2723, 2724
+- - + - - - - - - + - - - - - - - - + 2701, 2711 = 2711, 2723
+- - + - - - - - - + - - - - - - - - + 2701, 2725 = 2723, 2725
+- - + - - - - - - + - - - - - - - - + 2701, 2736 = 2723, 2736
+- - + - - - - - - + - - - - - - - - + 2701, 2731 = 2723, 2731 = 2723, 2737
+- - + - - - - - - + - - - - - - - - + 2701, 2721 = 2701, 2723 = 2721, 2723 =
                                     2723, 2723
+- - + - - - - - - + - - - - - - - - + 2708, 2718 = 2718, 2718 = 2718, 2740 =
                                     2718, 2742
- + + - - - - - - - - - - - - - - + 2702, 2703 = 2703, 2739
- + - - - - - - - - - - - - - - - - + 2702, 2710 = 2710, 2739
- + - - - - - - - - - - - - - - - - + 2702, 2735 = 2735, 2739
- + - - - - - - - - - - - - - - - - + 2702, 2741 = 2739, 2741
- + - - - - - - - - - - - - - - - - + 2702, 2743 = 2739, 2743
- + - - - - - - - - - - - - - - - - + 2702, 2707 = 2702, 2727 = 2707, 2739 =
                                     2727, 2739

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101.521-24u/04u – without *Taq* polymeraseLot No.: **09F**

Lot-specific Information

-+--+--+	---+-----	-----+-	2702, 2713 = 2713, 2739
-+--+--+	-----+---	-----+-	2702, 2716 = 2716, 2739
-+--+--+	-----+---	-----+-	2702, 2717 = 2702, 2734 = 2717, 2739 = 2734, 2739
-+--+--+	-----+---	-----+-	2702, 2719 = 2705, 2730 = 270504, 2730 = 2719, 2739 = 2730, 2739
-+--+--+	-----+---	+-----+-	2702, 2714 = 2714, 2739
-+--+--+	-----+---	+-----+-	2702, 2732 = 2732, 2739
-+--+--+	-----+---	+-----+-	2702, 2738 = 2738, 2739
-+--+--+	-----+---	+-----+-	2702, 2709 = 2709, 2739
-+--+--+	-----+---	+-----+-	2702, 2728 = 2728, 2739
-+--+--+	-----+---	+-----+-	2702, 2705 = 2702, 270504 = 2702, 2739 = 2705, 2739 = 270504, 2739 = 2739, 2739
--++-+-+	--+-----	-----+-	2703, 2707 = 2703, 2727
--++-+-+	-----+---	-----+-	2703, 2717 = 2703, 2734
--++-+-+	-----+---	-----+-	2703, 2703 = 2703, 2705 = 2703, 270504
---+++++	+--+-----	-----+-	2707, 2740 = 2710, 2733 = 2727, 2740
---+++++	+--+-----	-----+-	2710, 2712 = 2716, 2740
---+++++	+--+-----	-----+-	2717, 2740 = 2734, 2740
---+++++	+--+-----	-----+-	2705, 2740 = 2708, 2710 = 2710, 2740
---+++++	--++-----	-----+-	2708, 2743 = 2713, 2733
---+++++	--++-----	-----+-	2707, 2712 = 2712, 2727 = 2716, 2733
---+++++	--++-----	-----+-	2707, 2726 = 2726, 2727
---+++++	--++-----	-----+-	2705, 2733 = 2707, 2708 = 2708, 2727
---+++++	-----+---	-----+-	2712, 2717 = 2712, 2734
---+++++	-----+---	-----+-	2705, 2712 = 2708, 2716 = 2712, 2716
---+++++	-----+---	-----+-	2717, 2726 = 2726, 2734
---+++++	-----+---	-----+-	2708, 2717 = 2708, 2734
---+++++	++-----	--+--+--	2704, 2735 = 2706, 2738
---+++++	++-----	--+--+--	2704, 2741 = 2705, 2706 = 270504, 2706 = 2706, 2710
---+++++	+--+-----	----+--+	2704, 2707 = 2704, 2727
---+++++	+--+-----	-----+-	2705, 2720 = 270504, 2720 = 2710, 2711 = 2710, 2720 = 2715, 2727
---+++++	+--+-----	----+--+	2704, 2717 = 2704, 2734
---+++++	+--+-----	----+--+	2709, 2715 = 2710, 2736
---+++++	+--+-----	----+--+	2704, 2705 = 2704, 270504 = 2704, 2710
---+++++	+--+-----	-----+-	2705, 2715 = 270504, 2715 = 2710, 2715 = 2710, 2721
---+++++	+--+-----	--+--+--	2725, 2735 = 2725, 2741
---+++++	--+-----	+-----+-	2705, 2724 = 270504, 2724
---+++++	--+-----	--+--+--	2707, 2725 = 2711, 2738
---+++++	--+-----	--+--+--	2707, 2736 = 2727, 2736
---+++++	--+-----	-----+-	2707, 2731 = 2727, 2731
---+++++	--+-----	-----+-	2705, 2711 = 270504, 2711
---+++++	-----+---	--+--+--	2717, 2736 = 2734, 2736
---+++++	-----+---	-----+-	2717, 2731 = 2731, 2734
---+++++	-----+---	--+--+--	2709, 2725 = 2736, 2738
---+++++	-----+---	--+--+--	2705, 2725 = 270504, 2725
---+++++	-----+---	--+--+--	2721, 2738 = 2725, 2738
---+++++	-----+---	--+--+--	2705, 2736 = 270504, 2736 = 2709, 2736
---+++++	-----+---	-----+-	2705, 2731 = 270504, 2731
---+++++	-----+---	-----+-	2705, 2721 = 270504, 2721

101.521-24u/04u – without *Taq* polymerase

Lot No.: 09F

Lot-specific Information

---+++-	+++-----	----+--	2706, 2707 = 2706, 2727
---+++-	+--+-----	-----+	2707, 2720 = 2720, 2727
---+++-	--++-----	-----	2711, 2743 = 2721, 2743
---+++-	--+-----	-+-----	2707, 2724 = 2711, 2732 = 2724, 2732
---+++-	--+-----	-----+	2711, 2727 = 2721, 2727
---+++-	--+-----	-----	2707, 2711 = 2707, 2721
---+----	--+-----	-----+	2707, 2742 = 2727, 2742
---+----	-----+	-----+	2717, 2742 = 2734, 2742
---+----	+--+-----	-----+	2707, 2710 = 2710, 2727
---+----	+-----+	-----+	2710, 2717 = 2710, 2734
---+----	+-----	-----+	2705, 2710 = 270504, 2710 = 2710, 2710
---+----	-+-----	--+-----	2705, 2735 = 270504, 2735 = 2735, 2738 = 2738, 2741
---+----	-+-----	-----+	2705, 2741 = 270504, 2741
---+----	--++-----	-----+	2705, 2743 = 270504, 2743 = 2707, 2713 = 2713, 2727 = 2713, 2743
---+----	--+-----	-----+	2707, 2716 = 2716, 2727
---+----	--+-----	-----+	2707, 2717 = 2717, 2727
---+----	--+-----	-----+	2707, 2737 = 2727, 2737
---+----	--+-----	-----+	2705, 2707 = 2705, 2727 = 270504, 2707 = 270504, 2727
---+----	--+-----	-----+	2713, 2717 = 2713, 2734
---+----	--+-----	-----+	2705, 2713 = 270504, 2713 = 2713, 2713
---+----	-----+	-----+	2716, 2717 = 2716, 2734
---+----	-----+	-----+	2705, 2716 = 270504, 2716 = 2716, 2716
---+----	-----+	-----+	2717, 2737 = 2734, 2737
---+----	-----+	-----+	2705, 2717 = 2705, 2734 = 270504, 2717 = 270504, 2734 = 2717, 2717 = 2717, 2734
---+----	-----+	-----+	2705, 2719 = 270504, 2719
---+----	-----	+-----+	2705, 2714 = 270504, 2714
---+----	-----	-+-----	2705, 2732 = 270504, 2732
---+----	-----	--+-----	2705, 2738 = 270504, 2738
---+----	-----	---+-----	2705, 2709 = 270504, 2709
---+----	-----	-----+	2705, 2737 = 270504, 2737
---+----	-----	-----+	2705, 2728 = 270504, 2728
---+----	-----	-----+	2705, 2705 = 2705, 270504
---+----	-+-----	--+-----	2707, 2735 = 2727, 2735
---+----	-+-----	-----+	2707, 2741 = 2727, 2741
---+----	-+-----	--+-----	2735, 2735 = 2735, 2741
---+----	--++-----	-----	2707, 2743 = 2743, 2743
---+----	--+-----	---+-----	2707, 2709 = 2709, 2727
---+----	--+-----	-----+	2707, 2727 = 2727, 2727
---+----	+++-----	----+--	2706, 2708 = 2706, 2740 = 2706, 2742
---+----	+--+-----	-----+	2708, 2720 = 2711, 2740 = 2720, 2740 = 2720, 2742
---+----	+-----	----+--	2704, 2708 = 2704, 2740 = 2704, 2742
---+----	+-----	-----+	2715, 2726 = 2731, 2740 = 2737, 2740
---+----	+-----	-----+	2708, 2715 = 2715, 2740 = 2715, 2742 = 2721, 2740
---+----	--+-----	-+-----	2708, 2724 = 2724, 2742
---+----	--+-----	-----+	2711, 2726 = 2731, 2733 = 2733, 2737
---+----	--+-----	-----+	2708, 2711 = 2711, 2742
---+----	-----	-----+	2712, 2731 = 2712, 2737

101.521-24u/04u – without *Taq* polymeraseLot No.: **09F**

Lot-specific Information

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-----+++++ ----- --+----- 2708, 2725 = 2725, 2742
-----+++++ ----- --+----- 2708, 2736 = 2736, 2742
-----+++++ ----- -----++- 2708, 2731 = 2708, 2737 = 2721, 2726 =
                                     2726, 2731 = 2726, 2737 = 2731, 2742
-----+++++ ----- -----++- 2708, 2721 = 2721, 2742
-----+++- --+----- ----- 2711, 2733 = 2721, 2733
-----++-+ ++----- -----++- 2706, 2731 = 2706, 2737
-----++-+ ++----- -----++- 2704, 2706 = 2706, 2715
-----++-+ ++----- -----++- 2704, 2711 = 2704, 2720
-----++-+ ++----- -----++- 2720, 2731 = 2720, 2737
-----++-+ ++----- -----++- 2704, 2731 = 2704, 2737
-----++-+ ++----- -----++- 2704, 2704 = 2704, 2715 = 2704, 2721
-----++-+ ++----- -----++- 2715, 2731 = 2715, 2737
-----++-+ ++----- ----- 2715, 2715 = 2715, 2721
-----++-+ --+----- -+----- 2724, 2731 = 2724, 2737
-----++-+ --+----- -----++- 2711, 2731 = 2711, 2737
-----++-+ ----- --+----- 2725, 2731 = 2725, 2737
-----++-+ ----- --+----- 2721, 2725 = 2725, 2725
-----++-+ ----- --+----- 2731, 2736 = 2736, 2737
-----++-+ ----- --+----- 2721, 2736 = 2736, 2736
-----++-+ ----- -----++- 2721, 2731 = 2721, 2737 = 2731, 2731 =
                                     2731, 2737
-----++-+ +++----- -----++- 2706, 2711 = 2706, 2720
-----++-+ ++----- -----++- 2706, 2706 = 2706, 2721
-----++-+ +-+----- -----++- 2711, 2720 = 2720, 2720 = 2720, 2721
-----++-+ --+----- -+----- 2711, 2724 = 2721, 2724 = 2724, 2724
-----++-+ --+----- ----- 2711, 2711 = 2711, 2721
-----+-++ ++----- -----++- 2708, 2740 = 2740, 2740 = 2740, 2742
-----+-++ --+----- -----++- 2708, 2733 = 2733, 2742
-----+-++ -----+----- -----++- 2708, 2712 = 2712, 2712 = 2712, 2742
-----+-++ ----- -----++- 2708, 2726 = 2726, 2726 = 2726, 2742
-----+-++ ----- -----++- 2708, 2708 = 2708, 2742

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(2705 = 270502, 270503, 270504 to 270510)

SPECIFICITY TABLE

HLA-B*27 SSP subtyping

Specificities and sizes of the PCR products of the 24 primer mixes used for HLA-B*27 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-B*27 alleles ³	Other amplified HLA Class I alleles ^{3,4}
1	390 bp	800 bp	2701, 2718, 2723, 2729	180101, 180103, 1802, 1804-1815, 1817N-1824, 1826-1829, 3542, 370101-3714, 400201, 400202-400203 [?] , 4003-40060102, 400602 [?] , 4008, 4009-4011 [?] , 4013, 401401-4015 [?] , 4018-4022N [?] , 4024-4038 [?] , 4039, 4040 [?] , 4042 [?] , 4043, 4044-4049 [?] , 4050, 4052-4058 [?] , 4061-4065 [?] , 4067-4069 [?] , 4070, 4071 [?] , 407202 [?] , 4074-4076 [?] , 4078 [?] , 4080-4088 [?] , 4089, 4090-4092 [?] , 47010101-4705
2⁷	385, 405 bp	800 bp	2702, 2730, 2739	4013, 4019 [?]
3⁵	120 bp	1070 bp	2703	
4	245 bp	1070 bp	2703, 270502-270510, 2707, 2709, 2710, 2713, 2714, 2716, 2717, 2719, 2727-2729, 2732, 2734, 2735, 2738, 2739, 2741, 2743	370101-3704, 3706-3709, 3712, 3713
5	400 bp	1070 bp	270401-270402, 2706, 2708, 2711, 2712, 2715, 2718, 2720, 2721, 2723-2726, 2731, 2733, 2736, 2740	180101-1808, 1810-1815, 1817N-1824, 1826-1829, 3542, 3711, 3714, 400201-400602, 4008, 4009-4011 [?] , 401401-4015 [?] ,

				4018 [?] , 4020-4022N [?] , 4024-4036 [?] , 4038 [?] , 4039, 4040 [?] , 4042- 4046 [?] , 4048-4050 [?] , 4052-4058 [?] , 4061- 4065 [?] , 4067-4069 [?] , 4070, 4071 [?] , 407202 [?] , 4074-4076 [?] , 4078 [?] , 4080-4088 [?] , 4089, 4090-4092 [?] , 4702, 4703, 8201, 8202
6	415 bp	800 bp	2701-270402, 270502-270503, 270505-2707, 2709-2711, 2713- 2717, 2719-2721, 2723-2725, 2727- 2732, 2734-2739, 2741, 2743	1809, 370101-3704, 3706-3710, 3712- 3714, 4013, 4019 [?] , 4047 [?] , 47010101- 47010102, 4703-4705
7	410 bp	1070 bp	2708, 2712, 2718, 2726, 2733, 2740, 2742	180101-1808, 1810- 1815, 1817N-1824, 1826-1829, 3542, 3705, 3711, 3714, 400201-400602, 4008, 4009-4011 [?] , 401401-4015 [?] , 4018 [?] , 4020-4022N [?] , 4024- 4038 [?] , 4039, 4040 [?] , 4042-4046 [?] , 4048- 4050 [?] , 4052-4058 [?] , 4061-4065 [?] , 4067- 4069 [?] , 4070, 4071 [?] , 407202 [?] , 4074 [?] , 4075 [?] , 4078 [?] , 4080- 4088 [?] , 4089, 4090- 4092 [?] , 4702, 4703 ^{weakly} , 8201, 8202
8⁵	95 bp	1070 bp	2701-270402, 270502-270510, 2708, 2710, 2712, 2713, 2715-2718, 2723, 2725, 2726, 2728, 2729, 2731, 2736-2740, 2742	3702, 4704, 4705
9	205 bp	1070 bp	270401-270402,	

			2706, 2710, 2715, 2718, 2720, 2740	
10⁵	90 bp	800 bp	2706, 2735, 2741	9529, 1802, Cw*0705^{weakly}
11	190 bp	1070 bp	2707, 2711, 2720, 2724, 2727, 2733, 2743	070501-0706, 0732, 0740, 0753, 1301- 130204, 1307N-1309, 1311, 1313-1322, 3531, 3588, 400101- 400203, 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, 4431, 480101- 480102, 480301-4807, 4809-4816, 4818, 4819, 5110, 5116, 5131, 5134, 5208, 5509, 5522, 5524, 8101-8104N
12⁸	270, 430 bp	1070 bp	2713, 2743	
13	370 bp	800 bp	2712, 2716	4075 ^{weakly}
14^{5,9}	120, 345 bp	800 bp	2717, 2734	400602
15	370 bp	1070 bp	2718, 2729	180101-1806, 1808- 1815, 1817N-1824, 1826-1828, 370101- 3714, 400201, 400202 [?] , 4003- 40060102, 400602 [?] , 4009-4011 [?] , 401401- 4015 [?] , 4018-4022N [?] , 4024-4038 [?] , 4039, 4040 [?] , 4042-4050 [?] , 4052-4058 [?] , 4062- 4065 [?] , 4067 [?] , 4069 [?] , 4070, 4071 [?] , 407202 [?] , 4074 [?] , 4076 [?] , 4078 [?] , 4080-4088 [?] , 4089, 4090-4092 [?] , 47010101-4705

16⁶	245 bp	1070 bp	2719, 2730	0712, 0714, 071801-071802, 1301, 1307N, 1313, 1317, 1320-1322, 3515, 3533, 3588, 4004, 4030, 4034, 4059, 4064, 4068, 4416, 4421, 446401-446402, 4817, 5713, Cw*0334
17⁵	100 bp	1070 bp	2714	4420, 4447
18^{5,10}	95, 175 bp	800 bp	2724, 2732	0728, 0814, 4031, 4045, 4080, 4454, 480101-480102, 4804, 4806, 4807, 4809, 4811, 4815, 4816, 4818, 4819, 8101-8104N
19^{5,11}	95, 235 bp	800 bp	2725, 2735, 2738	9529
20^{5,12}	95, 175 bp	800 bp	2709, 2736	
21⁵	110 bp	800 bp	270401, 270402 [?] , 2706	
22¹³	195, 380 bp	800 bp	2726, 2731, 2737	8201, 8202
23	235 bp	800 bp	2701-270402, 270502-2706, 2708-2710, 2712, 2713, 2716-2718, 2720, 2723, 2726, 2727, 2729, 2731, 2735-2737, 2739-2742	3702, 4704, 4705
24^{5,14}	105, 260 bp	1070 bp	2718, 2728, 2729	0727, 0750, 0804, 0817, 1503, 1547, 1549, 1554, 1561, 1562, 1564, 1568, 1569, 1591, 1598, 9503, 9523, 9527, 9531, 9532, 1802, 3803, 390201-390202, 3908, 391301-391302, 3923, 3939, 4012, 4046, 4440, 4444, 480101-4805, 4807-4819, 5518

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*27 SSP typings.

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

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

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

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

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

²The internal positive control primer pairs amplify segments of the human growth hormone gene. The two different control primer pairs give rise to either an internal positive control band of 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*27 subtyping.

In addition, wells number 2, 6, 10, 13, 14, 18 to 23 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 1st exon nucleotide sequences are not available. In these instances it is not known whether some of the primers of the HLA-B*27 SSP subtyping kit are completely matched with the target sequences or not. We assume that unknown sequences in the 1st exon are conserved within allelic groups.

⁴Due to the sharing of sequence motifs between HLA-B alleles non-HLA-B*27 alleles will be amplified by primer mixes 1, 2, 4 to 8, 10, 11, 13 to 19, 22 to 24. In addition, the primers in vial 10 will weakly amplify the Cw*0705 allele and the Cw*0334 allele will be amplified by primer mix 16.

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

⁶Primer mix 16 has a tendency of giving rise to nonspecific amplifications.

⁷Primer mix 2: Specific PCR product of 385 bp in the B*2739 allele. Specific PCR product of 405 bp in the B*2702 and B*2730 and the B*4012 and B*4019[?] alleles.

⁸Primer mix 12: Specific PCR product of 270 bp in the B*2743 allele. Specific PCR product of 430 bp in the B*2713 allele.

⁹Primer mix 14: Specific PCR product of 120 bp in the B*2734 and B*400602 alleles. Specific PCR product of 345 bp in the B*2717 allele.

¹⁰Primer mix 18: Specific PCR product of 95 bp in the B*2732 and B*0728, 0814 and 4454 alleles. Specific PCR product of 175 bp in the B*2724 and B*4031, 4045, 4080, 480101-480102, 4804, 4806, 4807, 4809, 4811, 4815, 4816, 4818, 4819 and 8101- 8104N alleles.

¹¹Primer mix 19: Specific PCR fragment of 95 bp in the B*2735 allele. Specific PCR fragment of 235 bp in the B*2725, 2738 and B*9529 alleles.

¹²Primer mix 20: Specific PCR fragment of 95 bp in the B*2709 allele. Specific PCR fragment of 175 bp in the B*2736 allele.

¹³Primer mix 22: Specific PCR fragment of 195 bp in the B*2737 allele. Specific PCR fragment of 380 bp in the B*2726, 2731 and B*8201-8202 alleles.

¹⁴Primer mix 24: Specific PCR fragment of 105 bp in the B*2718, 2729 and the B*0727, 0750, 0804, 0817, 1503, 1547, 1549, 1554, 1561, 1562, 1564, 1568, 1569, 1591, 1598, 9503, 9523, 9527, 9531, 9532, 3803, 390201-390202, 3908, 391301-391302, 3923, 3939, 4012, 4046, 4440, 4444, 480101-4805, 4807-4819 and 5518 alleles. Specific PCR fragment of 260 bp in the B*2728 and B*1802 alleles.

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

INTERPRETATION TABLE												
HLA-B*27 SSP subtyping												
Amplification patterns of the B*2701 to B*2743 alleles												
	Well ⁵											
	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec.	390	385	120	245	400	415	410	95	205	90	190	270
PCR product(s)		405										430
Length of int.	800	800	1070	1070	1070	800	1070	1070	1070	800	1070	1070
pos. control ¹												
5'-primer(s) ²	72	72	167	97	72	72	72	363	363	363	412	14
	5'-gCT ^{3'}	5'-gCT ^{3'}	5'-gCT ^{3'}	5'-TCC ^{3'}	5'-gCT ^{3'}	5'-gCT ^{3'}	5'-gCT ^{3'}	5'-AAT ^{3'}	5'-AAT ^{3'}	5'-AAT ^{3'}	5'-ATA ^{3'}	5'-ggA ^{3'}
												385
												5'-ggT ^{3'}
3'-primer(s) ³	292	287	247	301	301	317	311	418	527	409	559	272
	5'-gTA ^{3'}	5'-TCA ^{3'}	5'-ATg ^{3'}	5'-gTC ^{3'}	5'-gCT ^{3'}	5'-ggA ^{3'}	5'-ggT ^{3'}	5'-gTC ^{3'}	5'-CCT ^{3'}	5'-ATA ^{3'}	5'-CTC ^{3'}	5'-TgC ^{3'}
		309			302					419		3 rd I
		5'-ATC ^{3'}			5'-ggC ^{3'}					5'-Cgg ^{3'}		5'-TAT ^{3'}
										419		
										5'-CgA ^{3'}		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
HLA-B allele ⁴												
*2701	1					6		8				
*2702		2				6		8				
*2703			3	4		6		8				
*270401					5	6		8	9			
*270402					5	6		8	9			
*270502-270503, 270505-270510				4		6		8				
*270504				4				8				
*2706					5	6			9	10		
*2707				4		6					11	
*2708					5		7	8				
*2709				4		6						
*2710				4		6		8	9			
*2711					5	6					11	
*2712					5		7	8				
*2713				4		6		8				12
*2714				4		6						
*2715					5	6		8	9			
*2716				4		6		8				
*2717				4		6		8				
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

INTERPRETATION TABLE												
HLA-B*27 SSP subtyping												
Amplification patterns of the B*2701 to B*2743 alleles												
Well ⁵												
13	14	15	16	17	18	19	20	21	22	23	24	
370	120	370	245	100	95	95	95	110	195	235	105	Length of spec.
	345				175	235	175		380		260	PCR product(s)
800	800	1070	1070	1070	800	800	800	800	800	800	1070	Length of int.
												pos. control ¹
72	72	72	355	357	363	363	363	704	72	363	206	5'-primer(s) ²
5'-gCT ^{3'}	5'-gCT ^{3'}	5'-gCT ^{3'}	5'-TCA ^{3'}	5'-Tgg ^{3'}	5'-AgC ^{3'}	5'-AAT ^{3'}	5'-AAT ^{3'}	5'-Tgg ^{3'}	5'-gCT ^{3'}	5'-AAT ^{3'}	5'-AgA ^{3'}	
	409										363	
	5'-ggC ^{3'}										5'-AAT ^{3'}	
272	248	272	559	418	418	419	418	774	97	559	272	3'-primer(s) ³
5'-TgC ^{3'}	5'-AAA ^{3'}	5'-Tgg ^{3'}	5'-CTC ^{3'}	5'-gTC ^{3'}	5'-gTC ^{3'}	5'-CgA ^{3'}	5'-gTg ^{3'}	5'-ggT ^{3'}	5'-gTA ^{3'}	5'-CTC ^{3'}	5'-Tgg ^{3'}	
	486				499	559	499		280		583	
	5'-gCT ^{3'}				5'-ggA ^{3'}	5'-CAg ^{3'}	5'-ggA ^{3'}		5'-CTg ^{3'}		5'-gTg ^{3'}	
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
												HLA-B allele ⁴
										23		*2701
										23		*2702
										23		*2703
								21		23		*270401
								?		23		*270402
										23		*270502-270503, 270505-270510
										23		*270504
								21		23		*2706
												*2707
										23		*2708
							20			23		*2709
										23		*2710
												*2711
13										23		*2712
										23		*2713
				17								*2714
												*2715
13										23		*2716
	14									23		*2717
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

Length of spec.	390	385	120	245	400	415	410	95	205	90	190	270
PCR product(s)		405										430
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*2718	1				5		7	8	9			
*2719				4		6						
*2720					5	6			9		11	
*2721					5	6						
*2723	1				5	6		8				
*2724					5	6					11	
*2725					5	6		8				
*2726					5		7	8				
*2727				4		6					11	
*2728				4		6		8				
*2729	1			4		6		8				
*2730		2				6						
*2731					5	6		8				
*2732				4		6						
*2733					5		7				11	
*2734				4		6						
*2735				4		6				10		
*2736					5	6		8				
*2737						6		8				
*2738				4		6		8				
*2739		2		4		6		8				
*2740					5		7	8	9			
*2741				4		6				10		
*2742							7	8				
*2743				4		6					11	12
*070501-0706, 0732, 0740, 0753, 130201-130204, 1308Q, 1309, 1311, 1314- 1316, 1318, 1319, 3531, 400101-400106, 4007, 4016, 4023, 4066, 407201, 4073, 4077, 4079, 4431, 5110, 5116, 5131, 5134, 5208, 5509, 5522, 5524											11	
*0712, 0714, 071801- 071802, 3515, 3533, 4059, 4416, 4421, 446401- 446402, 5713												
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

370	120	370	245	100	95	95	95	110	195	235	105	Length of spec.
	345				175	235	175		380		260	PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
		15								23	24	*2718
			16									*2719
										23		*2720
												*2721
										23		*2723
					18							*2724
						19						*2725
									22	23		*2726
										23		*2727
											24	*2728
		15								23	24	*2729
			16									*2730
									22	23		*2731
					18							*2732
												*2733
	14											*2734
						19				23		*2735
							20			23		*2736
									22	23		*2737
						19						*2738
										23		*2739
										23		*2740
										23		*2741
										23		*2742
												*2743
												*070501-0706, 0732, 0740, 0753, 130201-130204, 1308Q, 1309, 1311, 1314- 1316, 1318, 1319, 3531, 400101-400106, 4007, 4016, 4023, 4066, 407201, 4073, 4077, 4079, 4431, 5110, 5116, 5131, 5134, 5208, 5509, 5522, 5524
			16									*0712, 0714, 071801- 071802, 3515, 3533, 4059, 4416, 4421, 446401- 446402, 5713
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

Length of spec.	390	385	120	245	400	415	410	95	205	90	190	270
PCR product(s)		405										430
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*0727, 0750, 0804, 0817, 1503, 1547, 1549, 1554, 1561, 1562, 1564, 1568, 1569, 1591, 1598, 9503, 9523, 9527, 9531, 9532, 3803, 390201-390202, 3908, 391301-391302, 3923, 3939, 4440, 4444, 4802, 4808, 5518												
*0728, 0814, 4454												
*1301, 1307N, 1313, 1317, 1320-1322, 3588											11	
*9529									10			
*180101, 180103, 1804- 1806, 1808, 1810-1815, 1817N-1824, 1826-1828, 3711, 4003, 4005, 4039, 4702	1				5		7					
*180102, 1803					5		7					
*1802	1				5		7			10		
*1807, 1829, 3542	1				5		7					
*1809, 3710, 47010101- 47010102	1					6						
*370101-370104, 3703N, 3704, 3706-3709, 3712, 3713	1			4		6						
*3702	1			4		6		8				
*3705	1						7					
*3714	1				5	6	7					
*400201, 40060101- 40060102, 4070	1				5		7				11	
*400202	?				5		7				11	
*400203	?				5		7				11	
*4004	1				5		7				11	
*400602	?				5		7				11	
*4008	1				5		7				11	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

370	120	370	245	100	95	95	95	110	195	235	105	Length of spec.
	345				175	235	175		380		260	PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
											24	*0727, 0750, 0804, 0817, 1503, 1547, 1549, 1554, 1561, 1562, 1564, 1568, 1569, 1591, 1598, 9503, 9523, 9527, 9531, 9532, 3803, 390201-390202, 3908, 391301-391302, 3923, 3939, 4440, 4444, 4802, 4808, 5518
					18							*0728, 0814, 4454
			16									*1301, 1307N, 1313, 1317, 1320-1322, 3588
					19							*9529
		15										*180101, 180103, 1804- 1806, 1808, 1810-1815, 1817N-1824, 1826-1828, 3711, 4003, 4005, 4039, 4702
		15										*180102, 1803
		15									24	*1802
												*1807, 1829, 3542
		15										*1809, 3710, 47010101- 47010102
		15										*370101-370104, 3703N, 3704, 3706-3709, 3712, 3713
		15								23		*3702
		15										*3705
		15										*3714
		15										*400201, 40060101- 40060102, 4070
		?										*400202
												*400203
		15	16									*4004
	14	?										*400602
												*4008
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

Length of spec.	390	385	120	245	400	415	410	95	205	90	190	270
PCR product(s)		405										430
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*4009, 4018, 4020, 4024, 4026, 4028, 4032, 4033, 4042, 4044, 4052, 4063, 4071, 4092	?				? ?							
*4010, 4011, 401401-4015, 4021, 4022N, 4025, 4027, 4029, 4035, 4036, 4038, 4040, 4048, 4049, 4053-4058, 4062, 4065, 4067, 4069, 407202, 4074, 4078, 4081-4088, 4090, 4091	?				?		?				11	
*4012, 480301-480302, 4805, 4810, 4812-4814									11			
*4013	1	2				6					11	
*4019	?	?			?				11			
*4030, 4034, 4064	?				?		?				11	
*4031	?					?	?					
*4037	?						?				11	
*4043, 4050	1					?	?		11			
*4045, 4080	?				?		?				11	
*4046	?					?	?		11			
*4047	?					?					11	
*4061	?					?	?		11			
*4068	?				?		?				11	
*4075	?					?	?		11			
*4076	?				?						11	
*4089	1					5	7					
*4420, 4447												
*4703	1					5	6	W				
*4704, 4705	1					6		8				
*480101-480102, 4804, 4807, 4809, 4811, 4815, 4816, 4818, 4819									11			
*4806, 8101-8104N											11	
*4817												
*8201, 8202					5		7					
HLA-B allele ⁴												
Cw*0334												
Cw*0705									W			
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

370	120	370	245	100	95	95	95	110	195	235	105	Length of spec.
	345				175	235	175		380		260	PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
?												*4009, 4018, 4020, 4024, 4026, 4028, 4032, 4033, 4042, 4044, 4052, 4063, 4071, 4092
		?										*4010, 4011, 401401-4015, 4021, 4022N, 4025, 4027, 4029, 4035, 4036, 4038, 4040, 4048, 4049, 4053- 4058, 4062, 4065, 4067, 4069, 407202, 4074, 4078, 4081-4088, 4090, 4091
								24				*4012, 480301-480302, 4805, 4810, 4812-4814
												*4013
?												*4019
		?	16									*4030, 4034, 4064
		?		18								*4031
		?										*4037
?												*4043, 4050
		?		18								*4045, 4080
		?						24				*4046
		?										*4047
			16									*4061
W												*4068
		?										*4075
												*4076
		15										*4089
				17								*4420, 4447
		15										*4703
		15								23		*4704, 4705
				18				24				*480101-480102, 4804, 4807, 4809, 4811, 4815, 4816, 4818, 4819
					18							*4806, 8101-8104N
16								24				*4817
								22				*8201, 8202
												HLA-B allele ⁴
			16									Cw*0334
												Cw*0705
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

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*27 subtyping.

In addition, wells number 2, 6, 10, 13, 14, 18 to 23 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 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 2nd, 3rd or 4th exon or the 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 sequence of the B*27051 allele has been shown to be identical to B*270502.

The sequence of the B*2722 allele has been shown to be identical to the corrected B*2706 nucleotide sequence.

⁵Primer mix 2: Specific PCR product of 385 bp in the B*2739 allele. Specific PCR product of 405 bp in the B*2702 and B*2730 and the B*4012 and B*4019² alleles.

Primer mix 12: Specific PCR product of 270 bp in the B*2743 allele. Specific PCR product of 430 bp in the B*2713 allele.

Primer mix 14: Specific PCR product of 120 bp in the B*2734 and B*400602 alleles. Specific PCR product of 345 bp in the B*2717 allele.

Primer mix 18: Specific PCR product of 95 bp in the B*2732 and B*0728, 0814 and 4454 alleles. Specific PCR product of 175 bp in the B*2724 and B*4031, 4045, 4080, 480101-480102, 4804, 4806, 4807, 4809, 4811, 4815, 4816, 4818, 4819 and 8101- 8104N alleles.

Primer mix 19: Specific PCR fragment of 95 bp in the B*2735 allele. Specific PCR fragment of 235 bp in the B*2725, 2738 and B*9529 alleles.

Primer mix 20: Specific PCR fragment of 95 bp in the B*2709 allele. Specific PCR fragment of 175 bp in the B*2736 allele.

Primer mix 22: Specific PCR fragment of 195 bp in the B*2737 allele. Specific PCR fragment of 380 bp in the B*2726, 2731 and B*8201-8202 alleles.

Primer mix 24: Specific PCR fragment of 105 bp in the B*2718, 2729 and the B*0727, 0750, 0804, 0817, 1503, 1547, 1549, 1554, 1561, 1562, 1564, 1568, 1569, 1591, 1598, 9503, 9523, 9527, 9531, 9532, 3803, 390201-390202, 3908, 391301-391302, 3923, 3939, 4012, 4046, 4440, 4444, 480101-4805, 4807-4819 and 5518 alleles. Specific PCR fragment of 260 bp in the B*2728 and B*1802 alleles.

'w', might be weakly amplified.

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

CELL LINE VALIDATION SHEET																				
HLA-B*27 SSP subtyping kit																				
					Well															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				Prod. No.:	200620501	200851102	200620503	200620504	200620505	200620506	200620507	200620508	200620509	200851110	200620511	200851112	200620513	200620514	200620515	200620516
	IHWC 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	9007 DEM	*5701			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*3801			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*5401			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*4403			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*5701			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9067 BTB	*2705			-	-	-	+	-	+	-	+	-	-	-	-	-	-	-	-
14	9071 OLGA	*1501	*1520		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*4001			-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
16	9037 SWEIG007	*4002			+	-	-	-	+	-	+	-	-	-	+	-	-	-	+	-
17	9008 WILJON	*1801			+	-	-	-	+	-	+	-	-	-	-	-	-	-	+	-
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																		

CELL LINE VALIDATION SHEET													
HLA-B*27 SSP subtyping kit													
					Well								
					17	18	19	20	21	22	23	24	
				Prod. No.:	200620517	200620518	200620519	200735220	200620521	200735222	200620523	200735224	
	IHWC 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	9007	DEM	*5701		-	-	-	-	-	-	-	-	
9	9026	YAR	*3801		-	-	-	-	-	-	-	-	
10	9107	LKT3	*5401		-	-	-	-	-	-	-	-	
11	9051	PITOUT	*4403		-	-	-	-	-	-	-	-	
12	9052	DBB	*5701		-	-	-	-	-	-	-	-	
13	9067	BTB	*2705		-	-	-	-	-	-	+	-	
14	9071	OLGA	*1501	*1520	-	-	-	-	-	-	-	-	
15	9075	DKB	*4001		-	-	-	-	-	-	-	-	
16	9037	SWEIG007	*4002		-	-	-	-	-	-	-	-	
17	9008	WILJON	*1801		-	-	-	-	-	-	-	-	
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*27 SSP

Product number: 101.521-24u/04u – without *Taq* pol.
Lot number: 09F
Expiry date: 2010-September-01
Number of tests: 24 test – Product No. 101.521-24u
4 tests – Product No. 101.521-04u
Number of wells per test: 24

Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2006-205-01	9	2006-205-09	17	2006-205-17
2	2008-511-02	10	2008-511-10	18	2006-205-18
3	2006-205-03	11	2006-205-11	19	2006-205-19
4	2006-205-04	12	2008-511-12	20	2007-352-20
5	2006-205-05	13	2006-205-13	21	2006-205-21
6	2006-205-06	14	2006-205-14	22	2007-352-22
7	2006-205-07	15	2006-205-15	23	2006-205-23
8	2006-205-08	16	2006-205-16	24	2007-352-24

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 3, 10, 12 to 14, 16 to 20, 22 and 24 were available. The specificities of the primers in primer solutions 13, 16, 17, 19, 20, 22 and 24 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer. Additional 3'-primers in primer solution 5 and 10 were tested by separately adding one additional 5'-primer. In primer solutions 3 and 14 it was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solution 12 it was only possible to test the 3'-primers, the 5'-primers were not possible to test.

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

Date of approval: 2009-May-26

Approved by:

Quality Control, Supervisor

Declaration of Conformity

Product name: Olerup SSP® HLA-B*27

Product number: 101.521-24u/04u

Lot number: 09F

Intended use: HLA-B*27 high resolution histocompatibility testing

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

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

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

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

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

Saltsjöbaden, Sweden
2009-May-26

Olle Olerup
Managing Director

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