Olerup SSP® HLA-A*26

Product number:	**101.424-12 – including *Taq* polymerase**
Lot number:	**14L**
Expiry date:	**2013-September-01**
Number of tests:	**12**
Number of wells per test:	**43**
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. 14L.

CHANGES COMPARED TO THE PREVIOUS *OLERUP* SSP® HLA-A*26 LOT

The HLA-A*26 specificity and interpretation tables have been updated for the HLA-A alleles described since the previous *Olerup* SSP® HLA-A*26 lot was made **(Lot No. 13K)**.

Eleven wells have been added to the HLA-A*26 kit,
wells **33 to 43.**
The amplification patterns for some rare HLA-A*26 alleles
only differ by the length of the specific PCR products.

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

Well	5'-primer	3'-primer	rationale
1	-	Added	Primer added for the A*26:01:21 allele.
18	-	Added	Exchanged positive control primer pair, primer added for increased yield.
23	-	Added	Primer added for the A*26:56 allele.
30	-	Added	Primer added for the A*26:56 allele.
32	-	Added	Primer added for the A*26:61 allele.
33	New	New	New primer pairs for the A*26:46 and A*26:53 alleles.
34	New	New	New primer pairs for the A*26:47 and A*26:49 alleles.
35	New	New	New primer pairs for the A*26:48 and A*26:59 alleles.

36	New	New	New primer pairs for the A*26:54 and A*26:55 alleles.
37	New	New	New primer pairs for the A*26:50 and A*26:64 alleles.
38	New	New	New primer pair for the A*26:51 allele.
39	New	New	New primer pairs for the A*26:62, A*26:63 and A*26:64 alleles.
40	New	New	New primer pair for the A*26:57 allele.
41	New	New	New primer pair for the A*26:60N allele.
42	New	New	New primer pair for the A*26:58 allele.
43	New	New	New primer pair for improved resolution the A*26:28 and A*26:52 alleles.

Change in revision R01 compared to R00:

1. The HLA-A*23:13, 24:07, 24:24, 24:112, 24:131 and 68:36 alleles are amplified by primer mix 16. This has been revised in the Specificity and Interpretation Tables.

PRODUCT DESCRIPTION

HLA-A*26 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the A*26:01 to A*26:65 alleles.

PLATE LAYOUT

Each test consists of 43 PCR reactions in a 48 well cut PCR plate. Wells 44 to 48 are empty.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
9	**10**	**11**	**12**	**13**	**14**	**15**	**16**
17	**18**	**19**	**20**	**21**	**22**	**23**	**24**
25	**26**	**27**	**28**	**29**	**30**	**31**	**32**
33	**34**	**35**	**36**	**37**	**38**	**39**	**40**
41	**42**	**43**	**empty**	**empty**	**empty**	**empty**	**empty**

The 48 well PCR plate is marked with 'HLA-A*26' in silver/gray ink.
Well No. 1 is marked with the Lot Number '14L'.
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 48 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-A*26 SSP subtypings will be influenced by ten A*01, several A*02, five A*03, most A*11, the A*23, the A*24, the A*25, the A*29:19, four A*30, four A*31, the A*32:26, three A*33, the A*34, the A*36:03, the A*43:01, the A*66, the A*68, the A*69:01, two A*74 and the A*80:01 alleles when present on the other haplotype. In addition, primer mix 30 will amplify the B*35:108:01 allele.

UNIQUELY IDENTIFIED ALLELES

All the HLA-A*26 alleles, i.e. **A*26:01 to A*26:65**, recognized by the HLA Nomenclature Committee in January 2011[1] will give rise to unique amplification patterns by the primers in the HLA-A*26 subtyping kit.

The HLA-A*26 subtyping kit cannot distinguish the A*26:01:01-26:01:21, the A*26:03:01-26:03:02 or the A*26:07:01-26:07:02 alleles.
The A*26:17 and A*26:45 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 13.
The A*26:24 and A*26:41 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 21.
The A*26:25N and A*26:38 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 22.

The A*26:37 and A*26:43:02 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 29.
The A*26:43:01 and A*26:61 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 32.
The A*26:46 and A*26:53 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 33.
The A*26:54 and A*26:55 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 36.
The A*26:62 and A*26:63 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 39.

[1]HLA-A alleles listed on the IMGT/HLA web page 2011-January-14, release 3.3.0, www.ebi.ac.uk/imgt/hla.

RESOLUTION IN HOMO- AND HETEROZYGOTES

A total of 87 alleles generate 57 amplification patterns that can be combined in 1653 homozygous and heterozygous combinations. 536 of these genotypes do not give rise to unique amplification patterns. The different lengths of the specific PCR products were not considered in these calculations.

+++--+-- -------- -------- -------- -------- ---	*26:02, *26:05 = *26:02, *26:27
+++----- -+------ -------- -------- -------- ---	*26:02, *26:07:01 = *26:02, *26:20
++-+---- --+----- -------- ---+---- -------- ---	*26:01:01, *26:06 = *26:06, *26:36
++-+---- -------- -++----- ---+---- -------- ---	*26:21, *26:22 = *26:21, *26:40
++-+---- -------- -+------ -+-+---- -------- ---	*26:21, *26:34 = *26:21, *26:42
++-+---- -------- -+------ ---+---- -------- ---	*26:01:01, *26:21 = *26:21, *26:36
++-+---- -------- --+----- +------- -------- ---	*26:22, *26:30 = *26:30, *26:40
++-+---- -------- --+----- ---+---- -------- ---	*26:03:01, *26:22 = *26:03:01, *26:40
++-+---- -------- -------- ++------ -------- ---	*26:30, *26:34 = *26:30, *26:42
++-+---- -------- -------- +--+---- -------- ---	*26:03:01, *26:65 = *26:30, *26:36
++-+---- -------- -------- +------- -------- ---	*26:01:01, *26:30 = *26:30, *26:65
++-+---- -------- -------- -+-+---- -------- ---	*26:03:01, *26:34 = *26:03:01, *26:42
++-+---- -------- -------- ---+---- -------- ---	*26:01:01, *26:03:01 = *26:03:01, *26:36
++--++-- -------- -------- -------- -------- ---	*26:04, *26:05 = *26:04, *26:27
++--+--- -+------ -------- -------- -------- ---	*26:04, *26:07:01 = *26:04, *26:20
++---+++ ---+---- -------- -------- -------- --+	*26:05, *26:28 = *26:27, *26:28
++---+++ ---+---- -------- -------- -------- ---	*26:05, *26:52 = *26:27, *26:52
++---++- -------- -------- -------- --+----- ---	*26:05, *26:48 = *26:27, *26:48
++---++- -------- -------- -------- -------- ---	*26:05, *26:08 = *26:08, *26:27
++---+-+ +--+---- -------- -------- -------- --+	*26:05, *26:18 = *26:18, *26:27
++---+-+ ---+---- -------- -------- -------- --+	*26:05, *26:14 = *26:14, *26:27
++---+-+ -------- -------- -------- -------- ---	*26:05, *26:11N = *26:11N, *26:27
++---+-- +------- -------- -----+-- -+------ ---	*26:05, *26:29 = *26:27, *26:29
++---+-- +------- -------- -------- -+------ ---	*26:05, *26:49 = *26:27, *26:49
++---+-- +------- -------- -------- -------- ---	*26:05, *26:12 = *26:12, *26:27
++---+-- -+------ -------- -------- -------- ---	*26:05, *26:20 = *26:07:01, *26:27 = *26:20, *26:27
++---+-- ---+---- -------- -------- -------- ---	*26:05, *26:16 = *26:16, *26:27
++---+-- ----+--- -------- -------- -------- ---	*26:05, *26:17 = *26:17, *26:27
++---+-- -----+-- -------- -------- -------- ---	*26:05, *26:10 = *26:10, *26:27
++---+-- ------++ -------- -----+-- -------- ---	*26:05, *26:33 = *26:27, *26:33
++---+-- ------++ -------- -------- -------- ---	*26:05, *26:13 = *26:13, *26:27
++---+-- -------- +------- -------- -------- ---	*26:05, *26:09 = *26:09, *26:27
++---+-- -------- --+----- -------- -------- ---	*26:05, *26:22 = *26:05, *26:40 = *26:22, *26:27 = *26:27, *26:40
++---+-- -------- ---+---- -------- -------- ---	*26:05, *26:23 = *26:23, *26:27
++---+-- -------- ----+--- -------- -------- ---	*26:05, *26:24 = *26:24, *26:27
++---+-- -------- -----+-- -------- -------- ---	*26:05, *26:25N = *26:25N, *26:27
++---+-- -------- ------+- -----+-- -------- ---	*26:05, *26:56 = *26:27, *26:56
++---+-- -------- ------+- -------- -------- ---	*26:05, *26:26 = *26:26, *26:27

++---+-- -------- -------+ -------- -------- ---	*26:05, *26:32 = *26:27, *26:32
++---+-- -------- -------- +------- -------- ---	*26:05, *26:65 = *26:27, *26:65
++---+-- -------- -------- -+------ -------- ---	*26:05, *26:34 = *26:05, *26:42 = *26:27, *26:34 = *26:27, *26:42
++---+-- -------- -------- --+----- -------- ---	*26:05, *26:35 = *26:27, *26:35
++---+-- -------- -------- ---+---- -------- ---	*26:05, *26:36 = *26:27, *26:36
++---+-- -------- -------- ----+--- -------- ---	*26:05, *26:37 = *26:27, *26:37
++---+-- -------- -------- -----+-- -------- ---	*26:05, *26:15 = *26:15, *26:27
++---+-- -------- -------- ------+- -------- ---	*26:05, *26:39 = *26:27, *26:39
++---+-- -------- -------- -------+ -------- ---	*26:05, *26:43:01 = *26:27, *26:43:01
++---+-- -------- -------- -------- +------- ---	*26:05, *26:46 = *26:27, *26:46
++---+-- -------- -------- -------- -+------ ---	*26:05, *26:47 = *26:27, *26:47
++---+-- -------- -------- -------- --+----- ---	*26:05, *26:59 = *26:27, *26:59
++---+-- -------- -------- -------- ---+---- ---	*26:05, *26:54 = *26:27, *26:54
++---+-- -------- -------- -------- ----+-+- ---	*26:05, *26:64 = *26:27, *26:64
++---+-- -------- -------- -------- ----+--- ---	*26:05, *26:50 = *26:27, *26:50
++---+-- -------- -------- -------- -----+-- ---	*26:05, *26:51 = *26:27, *26:51
++---+-- -------- -------- -------- ------+- ---	*26:05, *26:62 = *26:27, *26:62
++---+-- -------- -------- -------- -------- +--	*26:05, *26:60N = *26:27, *26:60N
++---+-- -------- -------- -------- -------- -+-	*26:05, *26:58 = *26:27, *26:58
++---+-- -------- -------- -------- -------- ---	*26:01:01, *26:05 = *26:01:01, *26:27 = *26:05, *26:27 = *26:27, *26:27
++-----++ +--+---- -------- -------- -------- --+	*26:08, *26:18 = *26:12, *26:28 = *26:18, *26:28 = *26:18, *26:52
++-----++ -+-+---- -------- -------- -------- --+	*26:07:01, *26:28 = *26:20, *26:28
++-----++ -+-+---- -------- -------- -------- ---	*26:07:01, *26:52 = *26:20, *26:52
++-----++ ---+---- --+----- -------- -------- --+	*26:22, *26:28 = *26:28, *26:40
++-----++ ---+---- --+----- -------- -------- ---	*26:22, *26:52 = *26:40, *26:52
++-----++ ---+---- -------- -+------ -------- --+	*26:28, *26:34 = *26:28, *26:42
++-----++ ---+---- -------- -+------ -------- ---	*26:34, *26:52 = *26:42, *26:52
++-----++ ---+---- -------- -------- --+----- --+	*26:14, *26:48 = *26:28, *26:48 = *26:28, *26:59
++-----++ ---+---- -------- -------- --+----- ---	*26:48, *26:52 = *26:52, *26:59
++-----++ ---+---- -------- -------- -------- --+	*26:01:01, *26:28 = *26:08, *26:14 = *26:08, *26:28 = *26:11N, *26:28 = *26:14, *26:28 = *26:14, *26:52 = *26:16, *26:28 = *26:28, *26:28 = *26:28, *26:52
++-----++ ---+---- -------- -------- -------- ---	*26:01:01, *26:52 = *26:08, *26:52 = *26:11N, *26:52 = *26:16, *26:52 = *26:52, *26:52
++-----+- -+------ -------- -------- --+----- ---	*26:07:01, *26:48 = *26:20, *26:48
++-----+- -+------ -------- -------- -------- ---	*26:07:01, *26:08 = *26:08, *26:20
++-----+- --------- --+----- -------- --+----- ---	*26:22, *26:48 = *26:40, *26:48
++-----+- --------- --+----- -------- -------- ---	*26:08, *26:22 = *26:08, *26:40
++-----+- --------- -------- -+------ --+----- ---	*26:34, *26:48 = *26:42, *26:48
++-----+- --------- -------- -+------ -------- ---	*26:08, *26:34 = *26:08, *26:42
++-----+- --------- -------- -------- --+----- ---	*26:01:01, *26:48 = *26:08, *26:48 = *26:08, *26:59 = *26:48, *26:48 = *26:48, *26:59
++-----+- --------- -------- -------- -------- ---	*26:01:01, *26:08 = *26:08, *26:08
++------+ ++-+---- -------- -------- -------- --+	*26:07:01, *26:18 = *26:18, *26:20
++------+ +--+---- --+----- -------- -------- --+	*26:18, *26:22 = *26:18, *26:40
++------+ +--+---- -------- -+------ -------- --+	*26:18, *26:34 = *26:18, *26:42
++------+ +--+---- -------- -----+-- -+------ --+	*26:14, *26:29 = *26:18, *26:29
++------+ +--+---- -------- -------- -+------ --+	*26:14, *26:49 = *26:18, *26:47 = *26:18, *26:49
++------+ +--+---- -------- -------- -------- --+	*26:01:01, *26:18 = *26:11N, *26:18 = *26:12, *26:14 = *26:12, *26:18 = *26:14, *26:18 = *26:16, *26:18 = *26:18, *26:18
++------+ -+-+---- -------- -------- -------- --+	*26:07:01, *26:14 = *26:14, *26:20
++------+ -+------ -------- -------- -------- ---	*26:07:01, *26:11N = *26:11N, *26:20
++------+ ---+---- --+----- -------- -------- --+	*26:14, *26:22 = *26:14, *26:40
++------+ ---+---- -------- -+------ -------- --+	*26:14, *26:34 = *26:14, *26:42
++------+ ---+---- -------- -------- -------- --+	*26:01:01, *26:14 = *26:11N, *26:14 = *26:14, *26:14 = *26:14, *26:16
++------+ -------- --+----- -------- -------- ---	*26:11N, *26:22 = *26:11N, *26:40
++------+ -------- -------- -+------ -------- ---	*26:11N, *26:34 = *26:11N, *26:42
++------+ -------- -------- -------- -------- ---	*26:01:01, *26:11N = *26:11N, *26:11N
++------- ++------ -------- -----+-- -+------ ---	*26:07:01, *26:29 = *26:20, *26:29
++------- ++------ -------- -------- -+------ ---	*26:07:01, *26:49 = *26:20, *26:49

++------ ++------ -------- -------- -------- ---	*26:07:01, *26:12 = *26:12, *26:20
++------ +-----++ -------- -----+-- -+------ ---	*26:13, *26:29 = *26:29, *26:33 = *26:33, *26:49
++------ +------- --+----- -----+-- -+------ ---	*26:22, *26:29 = *26:29, *26:40
++------ +------- --+----- -------- -+------ ---	*26:22, *26:49 = *26:40, *26:49
++------ +------- --+----- -------- -------- ---	*26:12, *26:22 = *26:12, *26:40
++------ +------- ------+- -----+-- -+------ ---	*26:26, *26:29 = *26:29, *26:56 = *26:49, *26:56
++------ +------- -------- -+---+-- -+------ ---	*26:29, *26:34 = *26:29, *26:42
++------ +------- -------- -+------ -+------ ---	*26:34, *26:49 = *26:42, *26:49
++------ +------- -------- -+------ -------- ---	*26:12, *26:34 = *26:12, *26:42
++------ +------- -------- -----+-- -+------ ---	*26:01:01, *26:29 = *26:12, *26:29 = *26:15, *26:29 = *26:15, *26:49 = *26:29, *26:29 = *26:29, *26:47 = *26:29, *26:49
++------ +------- -------- -------- -+------ ---	*26:01:01, *26:49 = *26:12, *26:47 = *26:12, *26:49 = *26:47, *26:49 = *26:49, *26:49
++------ +------- -------- -------- -------- ---	*26:01:01, *26:12 = *26:12, *26:12
++------ -+-+---- -------- -------- -------- ---	*26:07:01, *26:16 = *26:16, *26:20
++------ -+--+-- -------- -------- -------- ---	*26:07:01, *26:17 = *26:17, *26:20
++------ -+---+- -------- -------- -------- ---	*26:07:01, *26:10 = *26:10, *26:20
++------ -+----++ -------- -----+-- -------- ---	*26:07:01, *26:33 = *26:20, *26:33
++------ -+----++ -------- -------- -------- ---	*26:07:01, *26:13 = *26:13, *26:20
++------ -+------ +------- -------- -------- ---	*26:07:01, *26:09 = *26:09, *26:20
++------ -+------ --+----- -------- -------- ---	*26:07:01, *26:22 = *26:07:01, *26:40 = *26:20, *26:22 = *26:20, *26:40
++------ -+------ ---+---- -------- -------- ---	*26:07:01, *26:23 = *26:20, *26:23
++------ -+------ ----+--- -------- -------- ---	*26:07:01, *26:24 = *26:20, *26:24
++------ -+------ -----+-- -------- -------- ---	*26:07:01, *26:25N = *26:20, *26:25N
++------ -+------ ------+- -----+-- -------- ---	*26:07:01, *26:56 = *26:20, *26:56
++------ -+------ ------+- -------- -------- ---	*26:07:01, *26:26 = *26:20, *26:26
++------ -+------ -------+ -------- -------- ---	*26:07:01, *26:32 = *26:20, *26:32
++------ -+------ -------- +------- -------- ---	*26:07:01, *26:65 = *26:20, *26:65
++------ -+------ -------- -+------ -------- ---	*26:07:01, *26:34 = *26:07:01, *26:42 = *26:20, *26:34 = *26:20, *26:42
++------ -+------ -------- --+----- -------- ---	*26:07:01, *26:35 = *26:20, *26:35
++------ -+------ -------- ---+---- -------- ---	*26:07:01, *26:36 = *26:20, *26:36
++------ -+------ -------- ----+--- -------- ---	*26:07:01, *26:37 = *26:20, *26:37
++------ -+------ -------- -----+-- -------- ---	*26:07:01, *26:15 = *26:15, *26:20
++------ -+------ -------- ------+- -------- ---	*26:07:01, *26:39 = *26:20, *26:39
++------ -+------ -------- -------+ -------- ---	*26:07:01, *26:43:01 = *26:20, *26:43:01
++------ -+------ -------- -------- +------- ---	*26:07:01, *26:46 = *26:20, *26:46
++------ -+------ -------- -------- -+------ ---	*26:07:01, *26:47 = *26:20, *26:47
++------ -+------ -------- -------- --+----- ---	*26:07:01, *26:59 = *26:20, *26:59
++------ -+------ -------- -------- ---+---- ---	*26:07:01, *26:54 = *26:20, *26:54
++------ -+------ -------- -------- ----+-+- ---	*26:07:01, *26:64 = *26:20, *26:64
++------ -+------ -------- -------- ----+--- ---	*26:07:01, *26:50 = *26:20, *26:50
++------ -+------ -------- -------- -----+-- ---	*26:07:01, *26:51 = *26:20, *26:51
++------ -+------ -------- -------- ------+- ---	*26:07:01, *26:62 = *26:20, *26:62
++------ -+------ -------- -------- -------- +--	*26:07:01, *26:60N = *26:20, *26:60N
++------ -+------ -------- -------- -------- -+-	*26:07:01, *26:58 = *26:20, *26:58
++------ -+------ -------- -------- -------- ---	*26:01:01, *26:07:01 = *26:01:01, *26:20 = *26:07:01, *26:20 = *26:20, *26:20
++------ --+---++ --+----- -------- -------- ---	*26:19, *26:22 = *26:19, *26:40
++------ --+---++ -------- -+------ -------- ---	*26:19, *26:34 = *26:19, *26:42
++------ --+---++ -------- -----+-- -------- ---	*26:15, *26:19 = *26:19, *26:33
++------ --+---++ -------- -------- -------- ---	*26:01:01, *26:19 = *26:13, *26:19
++------ ---+---- --+----- -------- -------- ---	*26:16, *26:22 = *26:16, *26:40
++------ ---+---- -------- -+------ -------- ---	*26:16, *26:34 = *26:16, *26:42
++------ ---+---- -------- -------- -------- ---	*26:01:01, *26:16 = *26:16, *26:16
++------ ----+--- --+----- -------- -------- ---	*26:17, *26:22 = *26:17, *26:40
++------ ----+--- -------- -+------ -------- ---	*26:17, *26:34 = *26:17, *26:42
++------ ----+--- -------- -------- -------- ---	*26:01:01, *26:17 = *26:17, *26:17
++------ -----+-- --+----- -------- -------- ---	*26:10, *26:22 = *26:10, *26:40
++------ -----+-- -------- -+------ -------- ---	*26:10, *26:34 = *26:10, *26:42
++------ -----+-- -------- -------- -------- ---	*26:01:01, *26:10 = *26:10, *26:10
++------ ------++ --+----- -----+-- -------- ---	*26:22, *26:33 = *26:33, *26:40
++------ ------++ --+----- -------- -------- ---	*26:13, *26:22 = *26:13, *26:40

++------ ------++ ------+- -----+-- -------- ---	*26:13, *26:56 = *26:26, *26:33 = *26:33, *26:56
++------ ------++ -------- -+---+-- -------- ---	*26:33, *26:34 = *26:33, *26:42
++------ ------++ -------- -+------ -------- ---	*26:13, *26:34 = *26:13, *26:42
++------ ------++ -------- -----+-- -------- ---	*26:01:01, *26:33 = *26:13, *26:15 = *26:13, *26:33 = *26:15, *26:33 = *26:33, *26:33
++------ ------++ -------- -------- -------- ---	*26:01:01, *26:13 = *26:13, *26:13
++------ -------- -++----- -------- -------- ---	*26:22, *26:31 = *26:31, *26:40
++------ -------- -+------ -+------ -------- ---	*26:31, *26:34 = *26:31, *26:42
++------ -------- --++---- -------- -------- ---	*26:22, *26:23 = *26:23, *26:40
++------ -------- --+-+--- -------- -------- ---	*26:22, *26:24 = *26:24, *26:40
++------ -------- --+--+-- -------- -------- ---	*26:22, *26:25N = *26:25N, *26:40
++------ -------- --+---+- -----+-- -------- ---	*26:22, *26:56 = *26:40, *26:56
++------ -------- --+---+- -------- -------- ---	*26:22, *26:26 = *26:26, *26:40
++------ -------- --+----+ -------- -------- ---	*26:22, *26:32 = *26:32, *26:40
++------ -------- --+----- +------- -------- ---	*26:22, *26:65 = *26:40, *26:65
++------ -------- --+----- -+------ -------- ---	*26:22, *26:34 = *26:22, *26:42 = *26:40, *26:42
++------ -------- --+----- --+----- -------- ---	*26:22, *26:35 = *26:35, *26:40
++------ -------- --+----- ---+---- -------- ---	*26:22, *26:36 = *26:36, *26:40
++------ -------- --+----- ----+--- -------- ---	*26:22, *26:37 = *26:37, *26:40
++------ -------- --+----- -----+-- -------- ---	*26:15, *26:22 = *26:15, *26:40
++------ -------- --+----- ------+- -------- ---	*26:22, *26:39 = *26:39, *26:40
++------ -------- --+----- -------+ -------- ---	*26:22, *26:43:01 = *26:40, *26:43:01
++------ -------- --+----- -------- +------- ---	*26:22, *26:46 = *26:40, *26:46
++------ -------- --+----- -------- -+------ ---	*26:22, *26:47 = *26:40, *26:47
++------ -------- --+----- -------- --+----- ---	*26:22, *26:59 = *26:40, *26:59
++------ -------- --+----- -------- ---+---- ---	*26:22, *26:54 = *26:40, *26:54
++------ -------- --+----- -------- ----+-+- ---	*26:22, *26:64 = *26:40, *26:64
++------ -------- --+----- -------- ----+--- ---	*26:22, *26:50 = *26:40, *26:50
++------ -------- --+----- -------- -----+-- ---	*26:22, *26:51 = *26:40, *26:51
++------ -------- --+----- -------- ------+- ---	*26:22, *26:62 = *26:40, *26:62
++------ -------- --+----- -------- -------+ ---	*26:22, *26:57 = *26:40, *26:57
++------ -------- --+----- -------- -------- +--	*26:22, *26:60N = *26:40, *26:60N
++------ -------- --+----- -------- -------- -+-	*26:22, *26:58 = *26:40, *26:58
++------ -------- --+----- -------- -------- ---	*26:01:01, *26:22 = *26:01:01, *26:40 = *26:22, *26:22 = *26:22, *26:40
++------ -------- ---+---- -+------ -------- ---	*26:23, *26:34 = *26:23, *26:42
++------ -------- ---+---- -------- -------- ---	*26:01:01, *26:23 = *26:23, *26:23
++------ -------- ----+--- -+------ -------- ---	*26:24, *26:34 = *26:24, *26:42
++------ -------- ----+--- -------- -------- ---	*26:01:01, *26:24 = *26:24, *26:24
++------ -------- -----+-- -+------ -------- ---	*26:25N, *26:34 = *26:25N, *26:42
++------ -------- -----+-- -------- -------- ---	*26:01:01, *26:25N = *26:25N, *26:25N
++------ -------- ------+- -+---+-- -------- ---	*26:34, *26:56 = *26:42, *26:56
++------ -------- ------+- -+------ -------- ---	*26:26, *26:34 = *26:26, *26:42
++------ -------- ------+- -----+-- -------- ---	*26:01:01, *26:56 = *26:15, *26:26 = *26:15, *26:56 = *26:26, *26:56 = *26:56, *26:56
++------ -------- ------+- -------- -------- ---	*26:01:01, *26:26 = *26:26, *26:26
++------ -------- -------+ -+------ -------- ---	*26:32, *26:34 = *26:32, *26:42
++------ -------- -------+ -------- -------- ---	*26:01:01, *26:32 = *26:32, *26:32
++------ -------- -------- ++------ -------- ---	*26:34, *26:65 = *26:42, *26:65
++------ -------- -------- +------- -------- ---	*26:01:01, *26:65 = *26:65, *26:65
++------ -------- -------- -++----- -------- ---	*26:34, *26:35 = *26:35, *26:42
++------ -------- -------- -+-+---- -------- ---	*26:34, *26:36 = *26:36, *26:42
++------ -------- -------- -+--+--- -------- ---	*26:34, *26:37 = *26:37, *26:42
++------ -------- -------- -+---+-- -------- ---	*26:15, *26:34 = *26:15, *26:42
++------ -------- -------- -+----+- -------- ---	*26:34, *26:39 = *26:39, *26:42
++------ -------- -------- -+------+ -------- ---	*26:34, *26:43:01 = *26:42, *26:43:01
++------ -------- -------- -+------ +------- ---	*26:34, *26:46 = *26:42, *26:46
++------ -------- -------- -+------ -+------ ---	*26:34, *26:47 = *26:42, *26:47
++------ -------- -------- -+------ --+----- ---	*26:34, *26:59 = *26:42, *26:59
++------ -------- -------- -+------ ---+---- ---	*26:34, *26:54 = *26:42, *26:54
++------ -------- -------- -+------ ----+-+- ---	*26:34, *26:64 = *26:42, *26:64
++------ -------- -------- -+------ ----+--- ---	*26:34, *26:50 = *26:42, *26:50
++------ -------- -------- -+------ -----+-- ---	*26:34, *26:51 = *26:42, *26:51
++------ -------- -------- -+------ ------+- ---	*26:34, *26:62 = *26:42, *26:62

++------ -------- -------- -+------ -------+ ---	*26:34, *26:57 = *26:42, *26:57
++------ -------- -------- -+------ -------- +--	*26:34, *26:60N = *26:42, *26:60N
++------ -------- -------- -+------ -------- -+-	*26:34, *26:58 = *26:42, *26:58
++------ -------- -------- -+------ -------- ---	*26:01:01, *26:34 = *26:01:01, *26:42 = *26:34, *26:42 = *26:42, *26:42
++------ -------- -------- --+----- -------- ---	*26:01:01, *26:35 = *26:35, *26:35
++------ -------- -------- ---+---- -------- ---	*26:01:01, *26:36 = *26:36, *26:36
++------ -------- -------- ----+--- -------- ---	*26:01:01, *26:37 = *26:37, *26:37
++------ -------- -------- -----+-- -------- ---	*26:01:01, *26:15 = *26:15, *26:15
++------ -------- -------- ------+- -------- ---	*26:01:01, *26:39 = *26:39, *26:39
++------ -------- -------- -------+ -------- ---	*26:01:01, *26:43:01 = *26:43:01, *26:43:01
++------ -------- -------- -------- +------- ---	*26:01:01, *26:46 = *26:46, *26:46
++------ -------- -------- -------- -+------ ---	*26:01:01, *26:47 = *26:47, *26:47
++------ -------- -------- -------- --+----- ---	*26:01:01, *26:59 = *26:59, *26:59
++------ -------- -------- -------- ---+---- ---	*26:01:01, *26:54 = *26:54, *26:54
++------ -------- -------- -------- ----+-+- ---	*26:01:01, *26:64 = *26:50, *26:62 = *26:50, *26:64 = *26:62, *26:64 = *26:64, *26:64
++------ -------- -------- -------- ----+--- ---	*26:01:01, *26:50 = *26:50, *26:50
++------ -------- -------- -------- -----+-- ---	*26:01:01, *26:51 = *26:51, *26:51
++------ -------- -------- -------- ------+- ---	*26:01:01, *26:62 = *26:62, *26:62
++------ -------- -------- -------- -------- +--	*26:01:01, *26:60N = *26:60N, *26:60N
++------ -------- -------- -------- -------- -+-	*26:01:01, *26:58 = *26:58, *26:58
+--+---- --+---++ -------- ---+---- -------- ---	*26:03:01, *26:19 = *26:06, *26:19
+--+---- --+----- -+------ ---+---- -------- ---	*26:06, *26:21 = *26:06, *26:31
+--+---- -------- -+------ ---+---- -------- ---	*26:03:01, *26:21 = *26:03:01, *26:31 = *26:21, *26:21 = *26:21, *26:31

*26:01:01= *26:01:01-26:01:21
*26:03:01 = *26:03:01-26:03:02
*26:07:01 = *26:07:01-26:07:02
*26:17 = *26:17 and *26:45
*26:24 = *26:24 and *26:41
*26:25N = *26:25N and *26:38
*26:37 = *26:37 and *26:43:02
*26:43:01 = *26:43:01 and *26:61
*26:46 = *26:46 and *26:53
*26:54 = *26:54 and *26:55
*26:62 = *26:62 and *26:63

SPECIFICITY TABLE

HLA-A*26 SSP subtyping

Specificities and sizes of the PCR products of the 43 primer mixes used for HLA-A*26 SSP subtyping.

Primer Mix	Size of spec. PCR product[1]	Size of control band[2]	Amplified HLA-A*26 alleles[3]	Other amplified HLA-A alleles[4]
1	180 bp	**800 bp**	*26:01:01-26:01:21, 26:03:01-26:03:02, 26:05, 26:07:01-26:08, 26:10-26:28, 26:29[W], 26:30-26:33, 26:35-26:39, 26:41-26:43:02, 26:45-26:48, 26:49[W], 26:50-26:65	*02:135, 25:01:01-25:05, 25:07-25:16, 31:24-31:25, 32:26, 43:01, 66:01, 66:04-66:09, 66:10[W], 66:11-66:15
2[5]	80 bp	**800 bp**	*26:01:01-26:02, 26:04, 26:08-26:18, 26:20, 26:22-26:29, 26:32-26:43:02, 26:45-26:56, 26:58-26:65	*01:51, 33:13
3	140 bp	1070 bp	*26:02	
4	255 bp	**800 bp**	*26:03:01-26:03:02, 26:06, 26:21, 26:30	*03:09, 03:108, 11:06, 11:18, 29:19, 30:13, 30:16, 30:44, 30:46, 33:24, 68:05, 68:15, 68:20, 74:06
5	180 bp	1070 bp	*26:04	
6[5,9]	80 bp, 160 bp	1070 bp	*26:05, 26:27	
7	155 bp	**800 bp**	*26:08, 26:28, 26:48, 26:52	*25:04
8	135 bp	1070 bp	*26:11N, 26:14, 26:18, 26:28, 26:52	*03:01:19, 25:09, 31:03-31:04, 34:03, 34:06
9[10]	145 bp, 190 bp	1070 bp	*26:12, 26:18, 26:29, 26:49	*31:03-31:04, 34:06, 66:06, 66:10
10[5,11]	85 bp, 260 bp	1070 bp	*26:07:01-26:07:02, 26:20	*01:01:13, 01:83, 02:146
11	140 bp	**800 bp**	*26:06, 26:19	*31:03
12[12]	135 bp, 240 bp	1070 bp	*26:14, 26:16, 26:18, 26:28, 26:52	*01:02, 01:20, 03:01:19, 24:04, 24:109, 24:129, 25:09, 31:03-31:04, 34:03, 34:06
13[5,13]	110 bp, 255 bp	1070 bp	*26:17, 26:45	

14	145 bp	1070 bp	*26:10	*02:38, 02:101:01, 02:154, 23:10, 24:10, 24:46, 68:61
15[5]	100 bp	**800 bp**	*26:13, 26:19, 26:33	*01:13, 01:17, 03:63, 03:88, 11:01:01-11:11, 11:13-11:16, 11:20-11:27, 11:29-11:39, 11:41-11:93, 25:02, 34:01:01-34:06, 34:08, 66:01, 66:04, 66:06-66:11, 66:13-66:14
16	430 bp	1070 bp	*26:13, 26:19, 26:33	*02:34[w], 02:35:01-02:35:03, 02:56:01[w]-02:56:02[w], 02:62[w], 02:78, 02:103[w], 23:13, 24:07, 24:19, 24:24, 24:112, 24:131, 34:01:01-34:09, 66:01-66:02, 66:04, 66:06-66:14, 66:16, 68:01:01:01-68:02:04, 68:06-68:14, 68:16-68:19, 68:21:01-68:30, 68:32--68:56, 68:58-68:72, 69:01
17	175 bp	1070 bp	*26:09	*03:01:19, 25:06, 31:03-31:04, 34:01:01-34:09
18[5,6,14]	125 bp, 205 bp	**800 bp**	*26:21, 26:31	*01:60
19[15]	190 bp, 245 bp	**800 bp**	*26:22, 26:40	*01:20[w], 01:66[w], 02:38, 02:101:01, 66:09
20[7]	210 bp	1070 bp	*26:23	
21[5,16]	115 bp, 205 bp	1070 bp	*26:24, 26:41	*02:241, 33:31
22[5,17]	100 bp, 220 bp	1070 bp	*26:25N, 26:38	
23[18]	130 bp, 165 bp	1070 bp	*26:26, 26:56	
24	305 bp	1070 bp	*26:32	*01:03, 11:26, 33:13, 36:03, 74:10
25[8]	360 bp	1070 bp	*26:30, 26:65	*02:135, 03:01:19, 25:13, 31:04, 34:09, 66:02-66:03, 66:12, 66:16
26[19]	150 bp, 175 bp	1070 bp	*26:34, 26:42	
27	275 bp	1070 bp	*26:35	
28[5]	90 bp	1070 bp	*26:03:01-26:03:02, 26:06, 26:21, 26:36	*11:06, 25:11, 80:01
29[20]	155 bp, 330 bp	1070 bp	*26:37, 26:43:02	*34:02:02
30[5,21]	125 bp, 235 bp	1070 bp	*26:15, 26:29, 26:33, 26:56	*11:91, **B*35:108:01**

31	210 bp	**800 bp**	*26:39	
32[5,22]	90 bp, 155 bp	1070 bp	*26:43:01, 26:61	*03:01:19, 31:03-31:04, 34:02:01, 34:03-34:04, 34:06-34:09, 66:06
33[5,23]	105 bp, 200 bp	1070 bp	*26:46, 26:53	
34[24]	135 bp, 190 bp	1070 bp	*26:29, 26:47, 26:49	*25:08, 66:10
35[5,25]	110 bp, 245 bp	1070 bp	*26:48, 26:59	*34:01:01-34:01:02, 34:05
36[5,26]	125 bp, 215 bp	1070 bp	*26:54-26:55	*25:05
37[6,7,27]	245 bp, 410 bp	1070 bp	*26:50, 26:64	
38	190 bp	1070 bp	*26:51	
39[28]	220 bp, 410 bp	1070 bp	*26:62-26:64	*23:09, 24:129
40[5]	90 bp	1070 bp	*26:57	
41	140 bp	1070 bp	*26:60N	
42	460 bp	1070 bp	*26:58	*02:81, 02:87, 02:112, 02:124, 02:129, 02:136, 23:01:01-23:36, 24:02:01:01-24:02:32, 24:02:34-24:03:02, 24:05-24:11N, 24:13:01-24:15, 24:17-24:18, 24:20-24:25, 24:27, 24:29-24:43, 24:45N-24:64, 24:66-24:88, 24:90N-24:99, 24:101-24:108, 24:110-24:128, 24:130-24:171, 25:01:01-25:16, 68:36
43	135 bp	1070 bp	*26:14, 26:18, 26:28	*03:01:19, 25:09, 31:03-31:04, 34:03, 34:06

[1]Alleles 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-A*26 SSP typings.
When the primers in a primer mix can give rise to specific PCR products of more than one length this is indicated if the size difference is 20 base pairs or more. Size differences shorter than 20 base pairs are not given. For high resolution SSP kits the respective lengths of the specific PCR product(s) of the alleles amplified by these primer mixes are given.
Nonspecific amplifications, i.e. a ladder or a smear of bands, may sometimes be seen. GC-rich primers have a higher tendency of giving rise to nonspecific amplifications than other primers.
PCR fragments longer than the control bands may sometimes be observed. Such bands should be disregarded and do not influence the interpretation of the SSP typings.
PCR fragments migrating faster than the control bands, but slower than a 400 bp fragment may be seen in some gel read-outs. Such bands can be disregarded and do not influence the interpretation of the SSP typings.
Some primers may give rise to primer oligomer artifacts. Sometimes this phenomenon is an inherit 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.

[2]The 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-A*26 subtyping.
In addition, wells number 2, 4, 7, 11, 15, 18, 19 and 31 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.
[3]The A*26:17 and A*26:45 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 13.
The A*26:24 and A*26:41 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 21.
The A*26:25N and A*26:38 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 22.
The A*26:37 and A*26:43:02 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 29.
The A*26:43:01 and A*26:61 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 32.
The A*26:46 and A*26:53 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 33.
The A*26:54 and A*26:55 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 36.
The A*26:62 and A*26:63 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 39.
[4]Due to the sharing of sequence motifs between HLA-A alleles non-HLA-A*26 alleles will be amplified by primer mixes 1, 2, 4, 7 to 12, 14 to 19, 21, 24, 25, 28 to 30, 32, 34 to 36, 39, 42 and 43. In addition, primer mix 30 will amplify the B*35:108:01 allele.
[5]Specific PCR fragments shorter than 125 base pairs have a lower intensity and are less sharp than longer PCR bands.
[6]Primer mixes 18 and 37 may have tendencies of primer oligomer formation.
[7]Primer mixes 20 and 37 may give rise to nonspecific amplification.
[8]Primer mix 25 may yield less specific PCR product than the other A*26 primer mixes.
[9]Primer mix 6: Specific PCR fragment of 80 bp in the A*26:05 allele. Specific PCR fragment of 160 bp in the A*26:27 allele.
[10]Primer mix 9: Specific PCR fragment of 145 bp in the A*26:12 and 26:18 and in the A*31:03-31:04, 34:06 and 66:06 alleles. Specific PCR fragment of 190 bp in the A*26:29 and 26:49 and in the A*66:10 alleles.
[11]Primer mix 10: Specific PCR fragment of 85 bp in the A*26:07:01-26:07:02 and in the A*01:83 alleles. Specific PCR fragment of 260 bp in the A*26:20 and in the A*01:01:13 alleles. Specific PCR fragments of 85 and 260 bp in the A*02:146 allele.
[12]Primer mix 12: Specific PCR fragment of 135 bp in the A*26:14, 26:18, 26:28 and 26:52 and in the A*03:01:19, 25:09, 31:03-31:04, 34:03 and 34:06 alleles. Specific PCR fragment of 240 bp in the A*26:16 and in the A*01:02, 01:20, 24:04, 24:109 and 24:129 alleles.
[13]Primer mix 13: Specific PCR fragment of 110 bp in the A*26:45 allele. Specific PCR fragment of 255 bp in the A*26:17 allele.
[14]Primer mix 18: Specific PCR fragment of 125 bp in the A*26:31 and the A*01:60 alleles. Specific PCR fragment of 205 bp in the A*26:21 allele.
[15]Primer mix 19: Specific PCR fragment of 190 bp in the A*26:40 allele. Specific PCR fragment of 245 bp in the A*26:22 and in the A* 01:20[w], 01:66[w], 02:38, 02:101:01 and 66:09 alleles.
[16]Primer mix 21: Specific PCR fragment of 115 bp in the A*26:24 and the A*02:241 and 33:31 alleles. Specific PCR fragment of 205 bp in the A*26:41 allele.
[17]Primer mix 22: Specific PCR fragment of 100 bp in the A*26:25N allele. Specific PCR fragment of 220 bp in the A*26:38 allele.
[18]Primer mix 23: Specific PCR fragment of 130 bp in the A*26:56 allele. Specific PCR fragment of 165 bp in the A*26:26 allele.
[19]Primer mix 26: Specific PCR fragment of 150 bp in the A*26:42 allele. Specific PCR fragment of 175 bp in the A*26:34 allele.

[20]Primer mix 29: Specific PCR fragment of 155 bp in the A*26:43:02 and the A*34:02:02 alleles. Specific PCR fragment of 330 bp in the A*26:37 allele.
[21]Primer mix 30: Specific PCR fragment of 125 bp in the A*26:15, 26:29 and 26:56 and in the A*11:91 and the B*35:108:01 alleles. Specific PCR fragment of 235 bp in the A*26:33 allele.
[22]Primer mix 32: Specific PCR fragment of 90 bp in the A*26:61 allele. Specific PCR fragment of 155 bp in the A*26:43:01 and the A*03:01:19 and the A*31:03-31:04, 34:02:01, 34:03-34:04, 34:06-34:09 and 66:06 alleles.
[23]Primer mix 33: Specific PCR fragment of 105 bp in the A*26:46 allele. Specific PCR fragment of 200 bp in the A*26:53 allele.
[24]Primer mix 34: Specific PCR fragment of 135 bp in the A*26:47 and the A*25:08 alleles. Specific PCR fragment of 190 bp in the A*26:29 and 26:49 and the A*66:10 alleles.
[25]Primer mix 35: Specific PCR fragment of 110 bp in the A*26:48 and in the A*34:01:01-34:01:02 and 34:05 alleles. Specific PCR fragment of 245 bp in the A*26:59 allele.
[26]Primer mix 36: Specific PCR fragment of 125 bp in the A*26:54 and the A*25:05 alleles. Specific PCR fragment of 215 bp in the A*26:55 allele.
[27]Primer mix 37: Specific PCR fragment of 245 bp in the A*26:50 allele. Specific PCR fragment of 410 bp in the A*26:64 allele.
[28]Primer mix 39: Specific PCR fragment of 220 bp in the A*26:63 allele. Specific PCR fragment of 410 bp in the A*26:62 and 26:64 and the A*23:09 and 24:129 allele.
'w', may be weakly amplified.

INTERPRETATION TABLE

HLA-A*26 SSP subtyping

Amplification patterns of the A*26:01 to 26:65 alleles

	Well[13]																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Length of spec.	180	80	140	255	180	80	155	135	145	85	140	135	110	145	100	430	175	125	190	210	115	100	130	305
PCR product(s)						160			190	260		240	255					205	245		205	220	165	
Length of int.	800	800	1070	800	1070	1070	800	1070	1070	1070	800	1070	1070	1070	800	1070	1070	800	800	1070	1070	1070	1070	1070
pos. control[1]																								
5'-primer(s)[2]	418	261	418	74	423	261	423	423	423	78	243	98	228	453	282	28	423	257	355	392	395	160	652	341
	5'-Agg 3'	5'-AAC 3'	5'-AgA 3'	5'-C 3'	5'-gCT 3'	5'-AAC 3'	5'-gCT 3'	5'-gCT 3'	5'-gCT 3'	5'-TCT 3'	5'-CCT 3'	5'-CTC 3'	5'-ATg 3'	5'-AAA 3'	5'-CAg 3'	5'-TCg 3'	5'-gCT 3'	5'-CCC 3'	5'-CCg 3'	5'-CgA 3'	5'-gCA 3'	5'-ACT 3'	5'-CTg 3'	5'-ggA 3'
				78		423				257	416	423	346					423	410		652	280		
				5'-TCC 3'		5'-gCT 3'				5'-Cgg 3'	5'-gCg 3'	5'-gCT 3'	5'-gTA 3'					5'-gCT 3'	5'-gTT 3'		5'-CTg 3'	5'-CCC 3'		
3'-primer(s)[3]	559	299	517	292	560	299	524	517	527	299	341	299	299	559	341	282	559	341	559	559	559	341	743	362
	5'-CCg 3'	5'-TCg 3'	5'-CgT 3'	5'-gTg 3'	5'-ACA 3'	5'-TCT 3'	5'-CAC 3'	5'-CgC 3'	5'-CCA 3'	5'-TCg 3'	5'-CgT 3'	5'-TCg 3'	5'-TCg 3'	5'-CCg 3'	5'-CgT 3'	5'-gAC 3'	5'-CgT 3'	5'-CgT 3'	5'-CCg 3'	5'-CCg 3'	5'-CCg 3'	5'-CgT 3'	5'-TCC 3'	5'-TCA 3'
	559					542	538	519	570		517	517	559	559		290		589			728		776	
	5'-CCT 3'					5'-CTT 3'	5'-CTg 3'	5'-ggA 3'	5'-CCg 3'		5'-CgT 3'	5'-CgC 3'	5'-CCg 3'	5'-CCg 3'		5'-gAA 3'		5'-CTT 3'			5'-CCT 3'		5'-CAA 3'	
								524				524												
								5'-CAC 3'				5'-CAC 3'												
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
HLA-A allele[4]																								
*26:01:01-26:01:21	1	2																						
*26:02		2	3																					
*26:03:01-26:03:02	1			4																				
*26:04		2			5																			
*26:05	1					6																		
*26:06				4							11													
*26:07:01-26:07:02	1									10														
*26:08	1	2					7																	
*26:09		2															17							
*26:10	1	2												14										
*26:11N	1	2						8																
*26:12	1	2							9															
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

INTERPRETATION TABLE

HLA-A*26 SSP subtyping

Amplification patterns of the A*26:01 to 26:65 alleles

Well[13]																		
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	
360	150	275	90	155	125	210	90	105	135	110	125	245	190	220	90	140	460	135	Length of spec.
	175			330	235		155	200	190	245	215	410		410					PCR product(s)
1070	1070	1070	1070	1070	1070	800	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	Length of int.
																			pos. control[1]
341	98	106	292	28	98	391	423	401	423	136	423	28	191	28	261	2nd I	28	423	5'-primer(s)[2]
5'-ggC 3'	5'-CTA 3'	5'-CCA 3'	5'-CTC 3'	5'-TCg 3'	5'-CTA 3'	5'-ACC 3'	5'-gCT 3'	5'-CCA 3'	5'-gCT 3'	5'-gCC 3'	5'-gCT 3'	5'-TCg 3'	5'-CgA 3'	5'-TCg 3'	5'-AAC 3'	5'-CCT 3'	5'-TCg 3'	5'-gCT 3'	
	423			423	652			495		270		353							
	5'-gCT 3'			5'-gCT 3'	5'-CTg 3'			5'-CAC 3'		5'-AAA 3'		5'-CAg 3'							
418	208	341	341	186	180	559	472	559	518	341	506	265	341	77	311	426	319	517	3'-primer(s)[3]
5'-gTC 3'	5'-CCA 3'	5'-CgT 3'	5'-CgT 3'	5'-TCC 3'	5'-TCC 3'	5'-CCg 3'	5'-ggC 3'	5'-CCg 3'	5'-CCA 3'	5'-CgT 3'	5'-TgT 3'	5'-CCA 3'	5'-CgT 3'	5'-ggC 3'	5'-ggA 3'	5'-TCC 3'	5'-gCg 3'	5'-CgC 3'	
	559			538	290		538		570		595	559		265					
	5'-CCA 3'			5'-CAg 3'	5'-gAA 3'		5'-CAA 3'		5'-CCg 3'		5'-CCA 3'	5'-CCg 3'		5'-CCA 3'					
					743									271					
					5'-TCC 3'									5'-CAT 3'					
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	Well No.
																			HLA-A allele[4]
																			*26:01:01-26:01:21
																			*26:02
			28																*26:03:01-26:03:02
																			*26:04
																			*26:05
			28																*26:06
																			*26:07:01-26:07:02
																			*26:08
																			*26:09
																			*26:10
																			*26:11N
																			*26:12
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	Well No.

Length of spec.	180	80	140	255	180	80	155	135	145	85	140	135	110	145	100	430	175	125	190	210	115	100	130	305
PCR product(s)						160			190	260		240	255					205	245		205	220	165	
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**
***26:13**	1	2													15	16								
***26:14**	1	2						8				12												
***26:15**	1	2																						
***26:16**	1	2										12												
***26:17, 26:45**[5]	1	2											13											
***26:18**	1	2						8	9			12												
***26:19**	1										11				15	16								
***26:20**	1	2								10														
***26:21**	1			4														18						
***26:22**	1	2																	19					
***26:23**	1	2																		20				
***26:24, 26:41**[6]	1	2																			21			
***26:25N, 26:38**[7]	1	2																				22		
***26:26**	1	2																					23	
***26:27**	1	2				6																		
***26:28**	1	2					7	8				12												
***26:29**	w	2							9															
***26:30**	1			4																				
***26:31**	1																	18						
***26:32**	1	2																						24
***26:33**	1	2													15	16								
***26:34**		2																						
***26:35**	1	2																						
***26:36**	1	2																						
***26:37, 26:43:02**[8]	1	2																						
***26:39**	1	2																						
***26:40**		2																	19					
***26:42**	1	2																						
***26:43:01, 26:61**[9]	1	2																						
***26:46, 26:53**[10]	1	2																						
***26:47**	1	2																						
***26:48**	1	2					7																	
***26:49**	w	2							9															
***26:50**	1	2																						
***26:51**	1	2																						
***26:52**	1	2					7	8				12												
***26:54, 26:55**[11]	1	2																						
***26:56**	1	2																					23	
***26:57**	1																							
***26:58**	1	2																						
***26:59**	1	2																						
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**

360	150	275	90	155	125	210	90	105	135	110	125	245	190	220	90	140	460	135	Length of spec.
	175			330	235		155	200	190	245	215	410		410					PCR product(s)
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	Well No.
																			*26:13
																		43	*26:14
					30														*26:15
																			*26:16
																			*26:17, 26:45[5]
																		43	*26:18
																			*26:19
																			*26:20
			28																*26:21
																			*26:22
																			*26:23
																			*26:24, 26:41[6]
																			*26:25N, 26:38[7]
																			*26:26
																			*26:27
																		43	*26:28
					30				34										*26:29
25																			*26:30
																			*26:31
																			*26:32
					30														*26:33
	26																		*26:34
		27																	*26:35
			28																*26:36
				29															*26:37, 26:43:02[8]
						31													*26:39
																			*26:40
	26																		*26:42
							32												*26:43:01, 26:61[9]
								33											*26:46, 26:53[10]
									34										*26:47
										35									*26:48
									34										*26:49
												37							*26:50
													38						*26:51
																			*26:52
											36								*26:54, 26:55[11]
					30														*26:56
															40				*26:57
																	42		*26:58
										35									*26:59
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	Well No.

Length of spec.	180	80	140	255	180	80	155	135	145	85	140	135	110	145	100	430	175	125	190	210	115	100	130	305
PCR product(s)						160			190	260		240	255					205	245		205	220	165	
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**
***26:60N**	**1**	**2**																						
***26:62, 26:63**[12]	**1**	**2**																						
***26:64**	**1**	**2**																						
***26:65**	**1**	**2**																						
***01:01:13, 01:83, 02:146**										**10**														
***01:02, 24:04, 24:109**												**12**												
***01:03, 36:03, 74:10**																								**24**
***01:13, 01:17, 03:63, 03:88, 11:01:01-11:05, 11:07-11:11, 11:13-11:16, 11:20-11:25, 11:27, 11:29-11:39, 11:41-11:90, 11:92-11:93**															**15**									
***01:20**												**12**							**w**					
***01:51**		**2**																						
***01:60**																		**18**						
***01:66**																			**w**					
***02:34, 02:56:01-02:56:02, 02:62, 02:103**																**w**								
***02:35:01-02:35:03, 02:78, 24:19, 68:01:01:01-68:02:04, 68:06-68:14, 68:16-68:19, 68:21:01-68:30, 68:32-68:35, 68:37-68:56, 68:58-68:60, 68:62-68:72, 69:01**																**16**								
***02:38, 02:101:01**														**14**					**19**					
***02:81, 02:87, 02:112, 02:124, 02:129, 02:136, 23:01:01-23:08N, 23:11N-23:12, 23:14-23:36, 24:02:01:01-24:02:32, 24:02:34-24:03:02, 24:05-24:06, 24:08-24:09N, 24:11N, 24:13:01-24:15, 24:17-24:18, 24:20-24:23, 24:25, 24:27, 24:29-24:43, 24:45N, 24:47-24:64, 24:66-24:88, 24:90N-24:99, 24:101-24:108, 24:110-24:111, 24:113-24:128, 24:130, 24:132N-24:171**																								
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**

360	150	275	90	155	125	210	90	105	135	110	125	245	190	220	90	140	460	135	Length of spec.
	175			330	235		155	200	190	245	215	410		410					PCR product(s)
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	Well No.
																41			*26:60N
														39					*26:62, 26:63[12]
												37		39					*26:64
25																			*26:65
																			*01:01:13, 01:83, 02:146
																			*01:02, 24:04, 24:109
																			*01:03, 36:03, 74:10
																			*01:13, 01:17, 03:63, 03:88, 11:01:01-11:05, 11:07-11:11, 11:13-11:16, 11:20-11:25, 11:27, 11:29-11:39, 11:41-11:90, 11:92-11:93
																			*01:20
																			*01:51
																			*01:60
																			*01:66
																			*02:34, 02:56:01-02:56:02, 02:62, 02:103
																			*02:35:01-02:35:03, 02:78, 24:19, 68:01:01:01-68:02:04, 68:06-68:14, 68:16-68:19, 68:21:01-68:30, 68:32-68:35, 68:37-68:56, 68:58-68:60, 68:62-68:72, 69:01
																			*02:38, 02:101:01
																	42		*02:81, 02:87, 02:112, 02:124, 02:129, 02:136, 23:01:01-23:08N, 23:11N-23:12, 23:14-23:36, 24:02:01:01-24:02:32, 24:02:34-24:03:02, 24:05-24:06, 24:08-24:09N, 24:11N, 24:13:01-24:15, 24:17-24:18, 24:20-24:23, 24:25, 24:27, 24:29-24:43, 24:45N, 24:47-24:64, 24:66-24:88, 24:90N-24:99, 24:101-24:108, 24:110-24:111, 24:113-24:128, 24:130, 24:132N-24:171
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	Well No.

Length of spec.	180	80	140	255	180	80	155	135	145	85	140	135	110	145	100	430	175	125	190	210	115	100	130	305
PCR product(s)						160			190	260		240	255					205	245		205	220	165	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
*02:135	1																							
*02:154														14										
*02:241, 33:31																					21			
*03:01:19								8				12					17							
*03:09, 03:108, 11:18, 29:19, 30:13, 30:16, 30:44, 30:46, 33:24, 68:05, 68:15, 68:20, 74:06				4																				
*11:06				4											15									
*11:26															15									24
*11:91															15									
*23:09																								
*23:10, 24:10, 24:46														14										
*23:13, 24:07, 24:24, 24:112, 24:131, 68:36																16								
*24:129												12												
*25:01:01-25:01:04, 25:03, 25:07, 25:10, 25:12N, 25:14-25:16	1																							
*25:02	1														15									
*25:04	1						7																	
*25:05	1																							
*25:06																	17							
*25:08	1																							
*25:09	1							8				12												
*25:11	1																							
*25:13	1																							
*31:03								8	9		11	12					17							
*31:04								8	9			12					17							
*31:24-31:25, 32:26, 43:01, 66:05, 66:15	1																							
*33:13		2																						24
*34:01:01-34:01:02, 34:05															15	16	17							
*34:02:01, 34:04, 34:08															15	16	17							
*34:02:02															15	16	17							
*34:03								8				12			15	16	17							
*34:06								8	9			12			15	16	17							
*34:07																16	17							
*34:09																16	17							
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

360	150	275	90	155	125	210	90	105	135	110	125	245	190	220	90	140	460	135	Length of spec.
	175			330	235		155	200	190	245	215	410		410					PCR product(s)
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	Well No.
25																			*02:135
																			*02:154
																			*02:241, 33:31
25							32											43	*03:01:19
																			*03:09, 03:108, 11:18, 29:19, 30:13, 30:16, 30:44, 30:46, 33:24, 68:05, 68:15, 68:20, 74:06
			28																*11:06
																			*11:26
					30														*11:91
														39			42		*23:09
																	42		*23:10, 24:10, 24:46
																	42		*23:13, 24:07, 24:24, 24:112, 24:131, 68:36
														39					*24:129
																	42		*25:01:01-25:01:04, 25:03, 25:07, 25:10, 25:12N, 25:14-25:16
																	42		*25:02
																	42		*25:04
											36						42		*25:05
																	42		*25:06
									34								42		*25:08
																	42	43	*25:09
			28														42		*25:11
25																	42		*25:13
							32											43	*31:03
25							32											43	*31:04
																			*31:24-31:25, 32:26, 43:01, 66:05, 66:15
																			*33:13
										35									*34:01:01-34:01:02, 34:05
							32												*34:02:01, 34:04, 34:08
				29															*34:02:02
							32											43	*34:03
							32											43	*34:06
							32												*34:07
25							32												*34:09
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	Well No.

Length of spec.	180	80	140	255	180	80	155	135	145	85	140	135	110	145	100	430	175	125	190	210	115	100	130	305
PCR product(s)						160			190	260		240	255					205	245		205	220	165	
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**
***66:01, 66:04, 66:07-66:08, 66:11, 66:13-66:14**	**1**														**15**	**16**								
***66:02, 66:16**																**16**								
***66:03**																								
***66:06**	**1**								**9**						**15**	**16**								
***66:09**	**1**														**15**	**16**			**19**					
***66:10**	**w**								**9**						**15**	**16**								
***66:12**	**1**															**16**								
***68:61**														**14**		**16**								
***80:01**																								
B*35:108:01																								
HLA-A allele																								
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**

[1]The 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-A*26 subtyping. .
In addition, wells number 2, 4, 7, 11, 15, 19 and 31 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.
[2]The nucleotide position, in the 1st, 2nd, 3rd or 4th exons, matching the specificity-determining 3'-end of the primer is given. Nuclotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.
[3]The nucleotide position, in the 2nd,3rd or 4th exons or in the 2nd intron, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nuclotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.
[4]The A*26:44 sequence has been renamed A*26:43:02.
[5]The A*26:17 and A*26:45 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 13.
[6]The A*26:24 and A*26:41 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 21.
[7]The A*26:25N and A*26:38 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 22.
[8]The A*26:37 and A*26:43:02 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 29.
[9]The A*26:43:01 and A*26:61 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 32.
[10]The A*26:46 and A*26:53 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 33.
[11]The A*26:54 and A*26:55 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 36.
[12]The A*26:62 and A*26:63 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 39.
[13]Primer mix 6: Specific PCR fragment of 80 bp in the A*26:05 allele. Specific PCR fragment of 160 bp in the A*26:27 allele.
Primer mix 9: Specific PCR fragment of 145 bp in the A*26:12 and 26:18 and in the A*31:03-31:04, 34:06 and 66:06 alleles. Specific PCR fragment of 190 bp in the A*26:29 and 26:49 and in the A*66:10 alleles.
Primer mix 10: Specific PCR fragment of 85 bp in the A*26:07:01-26:07:02 and in the A*01:83 alleles. Specific PCR fragment of 260 bp in the A*26:20 and in the A*01:01:13 alleles. Specific PCR fragments of 85 and 260 bp in the A*02:146 allele.

360	150	275	90	155	125	210	90	105	135	110	125	245	190	220	90	140	460	135	Length of spec.
	175			330	235		155	200	190	245	215	410		410					PCR product(s)
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	Well No.
																			*66:01, 66:04, 66:07-66:08, 66:11, 66:13-66:14
25																			*66:02, 66:16
25																			*66:03
							32												*66:06
																			*66:09
									34										*66:10
25																			*66:12
																			*68:61
			28																*80:01
					30														*B*35:108:01*
																			HLA-A allele
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	Well No.

Primer mix 12: Specific PCR fragment of 135 bp in the A*26:14, 26:18, 26:28 and 26:52 and in the A*03:01:19, 25:09, 31:03-31:04, 34:03 and 34:06 alleles. Specific PCR fragment of 240 bp in the A*26:16 and in the A*01:02, 01:20, 24:04, 24:109 and 24:129 alleles.
Primer mix 13: Specific PCR fragment of 110 bp in the A*26:45 allele. Specific PCR fragment of 255 bp in the A*26:17 allele.
Primer mix 18: Specific PCR fragment of 125 bp in the A*26:31 and the A*01:60 alleles. Specific PCR fragment of 205 bp in the A*26:21 allele.
Primer mix 19: Specific PCR fragment of 190 bp in the A*26:40 allele. Specific PCR fragment of 245 bp in the A*26:22 and in the A* 01:20^{w}, 01:66^{w}, 02:38, 02:101:01 and 66:09 alleles.
Primer mix 21: Specific PCR fragment of 115 bp in the A*26:24 and the A*02:241 and 33:31 alleles. Specific PCR fragment of 205 bp in the A*26:41 allele.
Primer mix 22: Specific PCR fragment of 100 bp in the A*26:25N allele. Specific PCR fragment of 220 bp in the A*26:38 allele.
Primer mix 23: Specific PCR fragment of 130 bp in the A*26:56 allele. Specific PCR fragment of 165 bp in the A*26:26 allele.
Primer mix 26: Specific PCR fragment of 150 bp in the A*26:42 allele. Specific PCR fragment of 175 bp in the A*26:34 allele.
Primer mix 29: Specific PCR fragment of 155 bp in the A*26:43:02 and the A*34:02:02 alleles. Specific PCR fragment of 330 bp in the A*26:37 allele.
Primer mix 30: Specific PCR fragment of 125 bp in the A*26:15, 26:29 and 26:56 and in the A*11:91 and the B*35:108:01 alleles. Specific PCR fragment of 235 bp in the A*26:33 allele.
Primer mix 32: Specific PCR fragment of 90 bp in the A*26:61 allele. Specific PCR fragment of 155 bp in the A*26:43:01 and the A*03:01:19 and the A*31:03-31:04, 34:02:01, 34:03-34:04, 34:06-34:09 and 66:06 alleles.
Primer mix 33: Specific PCR fragment of 105 bp in the A*26:46 allele. Specific PCR fragment of 200 bp in the A*26:53 allele.
Primer mix 34: Specific PCR fragment of 135 bp in the A*26:47 and the A*25:08 alleles. Specific PCR fragment of 190 bp in the A*26:29 and 26:49 and the A*66:10 alleles.
Primer mix 35: Specific PCR fragment of 110 bp in the A*26:48 and in the A*34:01:01-34:01:02 and 34:05 alleles. Specific PCR fragment of 245 bp in the A*26:59 allele.
Primer mix 36: Specific PCR fragment of 125 bp in the A*26:54 and the A*25:05 alleles. Specific PCR fragment of 215 bp in the A*26:55 allele.
Primer mix 37: Specific PCR fragment of 245 bp in the A*26:50 allele. Specific PCR fragment of 410 bp in the A*26:64 allele.
Primer mix 39: Specific PCR fragment of 220 bp in the A*26:63 allele. Specific PCR fragment of 410 bp in the A*26:62 and 26:64 and the A*23:09 and 24:129 allele.
'w', may be weakly amplified.

CELL LINE VALIDATION SHEET

HLA-A*26 SSP subtyping kit

					Well															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				Prod. No.:	201183101	201072702	201072703	201072704	201072705	201072706	201072707	201072708	201072709	201072710	201072711	201072712	201072713	201072714	201072715	201072716
	IHWC cell line		A*																	
1	9001	SA	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280	LK707	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011	E4181324	*01:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275	GU373	*30:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009	KAS011	*01:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353	SM	*02:01	*26:03	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
7	9020	QBL	*26:01		+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025	DEU	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026	YAR	*26:01		+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107	LKT3	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051	PITOUT	*29:02		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052	DBB	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004	JESTHOM	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071	OLGA	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075	DKB	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037	SWEIG007	*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282	CTM3953540	*03:01	*80:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257	32367	*33:03	*74:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038	BM16	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059	SLE005	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064	AMALA	*02:17		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056	KOSE	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124	IHL	*02:01	*34:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+
24	9035	JBUSH	*32:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049	IBW9	*33:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285	WT49	*02:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191	CH1007	*24:10	*29:01	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
28	9320	BEL5GB	*02:01	*29:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050	MOU	*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021	RSH	*30:01	*68:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
31	9019	DUCAF	*30:02		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297	HAG	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098	MT14B	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104	DHIF	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302	SSTO	*32:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024	KT17	*02:06	*11:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
37	9065	HHKB	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099	LZL	*02:17		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315	CML	*01:01	*03:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134	WHONP199	*02:07	*30:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055	H0301	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066	TAB089	*02:07		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076	T7526	*02:06	*02:07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057	TEM	*66:01		+	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+
45	9239	SHJO	*23:01	*24:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013	SCHU	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045	TUBO	*02:16	*03:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303	TER-ND	*02:01	*11:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-

CELL LINE VALIDATION SHEET

HLA-A*26 SSP subtyping kit

					Well															
					17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
				Prod. No.:	201072717	201183118	201072719	201072720	201072721	201072722	201183123	201072724	201072725	201072726	201072727	201072728	201072729	201183130	201072731	201183132
	IHWC cell line		A*																	
1	9001	SA	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280	LK707	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011	E4181324	*01:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275	GU373	*30:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009	KAS011	*01:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353	SM	*02:01	*26:03	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
7	9020	QBL	*26:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9007	DEM	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026	YAR	*26:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107	LKT3	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051	PITOUT	*29:02		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052	DBB	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004	JESTHOM	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071	OLGA	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075	DKB	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037	SWEIG007	*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282	CTM3953540	*03:01	*80:01	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
18	9257	32367	*33:03	*74:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038	BM16	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059	SLE005	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064	AMALA	*02:17		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056	KOSE	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124	IHL	*02:01	*34:01	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035	JBUSH	*32:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049	IBW9	*33:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285	WT49	*02:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191	CH1007	*24:10	*29:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320	BEL5GB	*02:01	*29:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050	MOU	*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021	RSH	*30:01	*68:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9019	DUCAF	*30:02		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297	HAG	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098	MT14B	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104	DHIF	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302	SSTO	*32:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024	KT17	*02:06	*11:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065	HHKB	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099	LZL	*02:17		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315	CML	*01:01	*03:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134	WHONP199	*02:07	*30:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055	H0301	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066	TAB089	*02:07		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076	T7526	*02:06	*02:07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057	TEM	*66:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239	SHJO	*23:01	*24:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013	SCHU	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045	TUBO	*02:16	*03:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303	TER-ND	*02:01	*11:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CELL LINE VALIDATION SHEET

HLA-A*26 SSP subtyping kit

					Well										
					33	34	35	36	37	38	39	40	41	42	43
				Prod. No.:	201183133	201183134	201183135	201183136	201183137	201183138	201183139	201183140	201183141	201183142	201183143
	IHWC cell line		A*												
1	9001	SA	*24:02		-	-	-	-	-	-	-	-	-	+	-
2	9280	LK707	*02:01		-	-	-	-	-	-	-	-	-	-	-
3	9011	E4181324	*01:01		-	-	-	-	-	-	-	-	-	-	-
4	9275	GU373	*30:01		-	-	-	-	-	-	-	-	-	-	-
5	9009	KAS011	*01:01		-	-	-	-	-	-	-	-	-	-	-
6	9353	SM	*02:01	*26:03	-	-	-	-	-	-	-	-	-	-	-
7	9020	QBL	*26:01		-	-	-	-	-	-	-	-	-	-	-
8	9007	DEM	*31:01		-	-	-	-	-	-	-	-	-	-	-
9	9026	YAR	*26:01		-	-	-	-	-	-	-	-	-	-	-
10	9107	LKT3	*24:02		-	-	-	-	-	-	-	-	-	+	-
11	9051	PITOUT	*29:02		-		-	-	-	-	-	-	-	-	-
12	9052	DBB	*02:01		-	-	-	-	-	-	-	-	-	-	-
13	9004	JESTHOM	*02:01		-	-	-	-	-	-	-	-	-	-	-
14	9071	OLGA	*31:01		-	-	-	-	-	-	-	-	-	-	-
15	9075	DKB	*24:02		-	-	-	-	-	-	-	-	-	+	-
16	9037	SWEIG007	*29:02		-	-	-	-	-	-	-	-	-	-	-
17	9282	CTM3953540	*03:01	*80:01	-	-	-	-	-	-	-	-	-	-	-
18	9257	32367	*33:03	*74:01	-	-	-	-	-	-	-	-	-	-	-
19	9038	BM16	*02:01		-	-	-	-	-	-	-	-	-	-	-
20	9059	SLE005	*02:01		-	-	-	-	-	-	-	-	-	-	-
21	9064	AMALA	*02:17		-	-	-	-	-	-	-	-	-	-	-
22	9056	KOSE	*02:01		-	-	-	-	-	-	-	-	-	-	-
23	9124	IHL	*02:01	*34:01	-	-	+	-	-	-	-	-	-	-	-
24	9035	JBUSH	*32:01		-	-	-	-	-	-	-	-	-	-	-
25	9049	IBW9	*33:01		-	-	-	-	-	-	-	-	-	-	-
26	9285	WT49	*02:05		-	-	-	-	-	-	-	-	-	-	-
27	9191	CH1007	*24:10	*29:01	-	-	-	-	-	-	-	-	-	+	-
28	9320	BEL5GB	*02:01	*29:02	-	-	-	-	-	-	-	-	-	-	-
29	9050	MOU	*29:02		-	-	-	-	-	-	-	-	-	-	-
30	9021	RSH	*30:01	*68:02	-	-	-	-	-	-	-	-	-	-	-
31	9019	DUCAF	*30:02		-		-	-	-	-	-	-	-	-	-
32	9297	HAG	*02:01		-	-	-	-	-	-	-	-	-	-	-
33	9098	MT14B	*31:01		-	-	-	-	-	-	-	-	-	-	-
34	9104	DHIF	*31:01		-	-	-	-	-	-	-	-	-	-	-
35	9302	SSTO	*32:01		-	-	-	-	-	-	-	-	-	-	-
36	9024	KT17	*02:06	*11:01	-	-	-	-	-	-	-	-	-	-	-
37	9065	HHKB	*03:01		-	-	-	-	-	-	-	-	-	-	-
38	9099	LZL	*02:17		-	-	-	-	-	-	-	-	-	-	-
39	9315	CML	*01:01	*03:01	-	-	-	-	-	-	-	-	-	-	-
40	9134	WHONP199	*02:07	*30:01	-	-	-	-	-	-	-	-	-	-	-
41	9055	H0301	*03:01		-	-	-	-	-	-	-	-	-	-	-
42	9066	TAB089	*02:07		-	-	-	-	-	-	-	-	-	-	-
43	9076	T7526	*02:06	*02:07	-	-	-	-	-	-	-	-	-	-	-
44	9057	TEM	*66:01		-	-	-	-	-	-	-	-	-	-	-
45	9239	SHJO	*23:01	*24:02	-	-	-	-	-	-	-	-	-	+	-
46	9013	SCHU	*03:01		-	-	-	-	-	-	-	-	-	-	-
47	9045	TUBO	*02:16	*03:01	-	-	-	-	-	-	-	-	-	-	-
48	9303	TER-ND	*02:01	*11:01	-	-	-	-	-	-	-	-	-	-	-

CERTIFICATE OF ANALYSIS

Olerup SSP® HLA-A*26 SSP

Product number: **101.424-12 – including *Taq* polymerase**
Lot number: **14L**
Expiry date: **2013-September-01**
Number of tests: **12**
Number of wells per test: **43**

Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2011-831-01	17	2010-727-17	33	2011-831-33
2	2010-727-02	18	2011-831-18	34	2011-831-34
3	2010-727-03	19	2010-727-19	35	2011-831-35
4	2010-727-04	20	2010-727-20	36	2011-831-36
5	2010-727-05	21	2010-727-21	37	2011-831-37
6	2010-727-06	22	2010-727-22	38	2011-831-38
7	2010-727-07	23	2011-831-23	39	2011-831-39
8	2010-727-08	24	2010-727-24	40	2011-831-40
9	2010-727-09	25	2010-727-25	41	2011-831-41
10	2010-727-10	26	2010-727-26	42	2011-831-42
11	2010-727-11	27	2010-727-27	43	2011-831-43
12	2010-727-12	28	2010-727-28		
13	2010-727-13	29	2010-727-29		
14	2010-727-14	30	2011-831-30		
15	2010-727-15	31	2010-727-31		
16	2010-727-16	32	2011-831-32		

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 6, 8 to 11, 13, 18 to 23, 26, 27, 29 to 31, 33, 34, 36-41 and 43 were available.
The specificities of the primers in primer solutions 6, 8 to 11, 18, 19, 21, 29, 34, 36, 37, 39 and 43 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer. In primer solutions 23, 26, 30, 40 and 41 it was only possible to test the 5'-primers. In primer solutions 13, 20, 22, 27 and 31 it was only possible to test the 3'-primer. In primer solutions 1, 6, 8, 16, 21, 29, 32 34 36, 37 and 39 one or two of the 3'-primers were not possible to test. In primer solutions 4, 10, 11, 18, 19, 21 35 and 37 one of the 5'-primers was not possible to test. Additional primers in primer solutions 7 and 12 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer.

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

Date of approval: 2012-May-10

Approved by:

Production Quality Control

Declaration of Conformity

Product name: *Olerup* SSP® HLA-A*26
Product number: 101.424-12
Lot number: 14L

Intended use: HLA-A*26 high resolution histocompatibility testing

Manufacturer: *Olerup* SSP AB
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We, *Olerup* SSP AB, hereby declare that this product, to which this Declaration of Conformity relates is in conformity with the following Standard(s) and other normative document(s) ISO 9001:2008 and ISO 13485:2003, following the provisions of the 98/79/EC Directive on *in vitro* diagnostic medical devices, Annex II List B, conformity assessed using Annex IV, as transposed into the national laws of the Member States of the European Union.

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

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

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

Stockholm, Sweden
2012-May-10

Ann-Cathrin Jareman
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