# *Olerup* SSP® HLA-A*29

| | |
|---|---|
| **Product number:** | **101.428-12u – without *Taq* polymerase** |
| **Lot number:** | **05M** |
| **Expiry date:** | **2013-November-01** |
| **Number of tests:** | **12** |
| **Number of wells per test:** | **23** |
| **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. 05M.

## CHANGES COMPARED TO THE PREVIOUS *OLERUP* SSP® HLA-A*29 LOT

The HLA-A*29 specificity and interpretation tables have been updated for the HLA-A alleles described since the previous *Olerup* SSP® HLA-A*29 lot was made **(Lot No. 19K)**.

Seven wells have been added to the HLA-A*29 kit, well **17 to 23.**

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

| Well | 5'-primer | 3'-primer | rationale |
|---|---|---|---|
| 5 | Moved | Moved | Primer pair moved to well 21, exchanged positive control primer pair. |
| 8 | Moved | Moved | Primer pair moved to well 22. |
| 12 | Moved | Moved | Primer pair moved to well 21. |
| 17 | New | New | New primer pairs for the A*29:24 and A*29:27 alleles. |
| 18 | New | New | New primer pair for the A*29:23 allele. |
| 19 | New | New | Primer added for the A*29:25 allele. |
| 20 | New | New | Primer added for the A*29:26 allele. |
| 21 | New | New | Primer pair from wells 5 and 12. |
| 22 | New | New | Primer pair from well 8. |
| 23 | New | New | Primer added for the A*29:29 allele. |

Change in revision R01 compared to R00:

1. Primer mix 16 does not amplify the A*29:21 allele. This has been corrected in the specificity and amplification tables. Thus, this lot of the HLA-A*29 subtyping kit cannot distinguish the A*29:02:01:01-29:02:03 and 29:02:05-29:02:08 and the A*29:21 alleles.

# PRODUCT DESCRIPTION

## HLA-A*29 SSP subtyping

### CONTENT
The primer set contains 5'- and 3'-primers for identifying the A*29:01 to A*29:29 alleles.

### PLATE LAYOUT
Each test consists of 23 PCR reactions in a 24 well cut PCR plate. Well 24 is empty

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** |
| **17** | **18** | **19** | **20** | **21** | **22** | **23** | **empty** |

The 24 well cut PCR plate is marked with 'HLA-A*29' in silver/gray ink.
Well No. 1 is marked with the Lot No. '05M'.
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 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-A*29 SSP subtypings will be influenced by two A*01, five A*02, three A*03, the A*11:01:28, the A*23:03:01, five A*24, the A*26:22, the A*30:47, six A*31, the A*32, four A*33, the A*66*09, the A*68:58 and the A*74 alleles when present on the other haplotype.

### UNIQUELY IDENTIFIED ALLELES
All the HLA-A*29 alleles, i.e. **A*29:01 to A*29:29 alleles**, recognized by the HLA Nomenclature Committee in April 2011[1] will give rise to unique amplification patterns by the primers in the HLA-A*29 subtyping kit.
The HLA-A*29 subtyping kit cannot distinguish the A*29:01:01:01 and 29:01:02-29:01:03 alleles or the A*29:02:01:01-29:02:03 and 29:02:05-29:02:08 alleles.

[1]HLA-A alleles listed on the IMGT/HLA web page 2011-April-08, release 3.4.0, www.ebi.ac.uk/imgt/hla.

## RESOLUTION IN HOMO- AND HETEROZYGOTES

A total of 39 alleles generate 30 amplification patterns that can be combined in 465 homozygous and heterozygous combinations. 208 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.

| | |
|---|---|
| ++++----- --+--++- ------- | *29:01:01:02N, *29:10 = *29:01:01:02N, *29:14 |
| ++------- ---+-++- ------- | *29:01:01:02N, *29:02:04 = *29:01:01:02N, *29:18 |
| ++------- -----++- ------- | *29:01:01:01, *29:01:01:02N = *29:01:01:02N, *29:01:01:02N |
| +-+--++- -----++- ------- | *29:01:01:01, *29:19 = *29:06, *29:20 = *29:19, *29:20 |
| +-+---+- +----++- ------- | *29:05, *29:16 = *29:08N, *29:20 |
| +-+---+- -+----++- ------- | *29:05, *29:17 = *29:09, *29:20 |
| +-+---+- --+--++- ------- | *29:10, *29:20 = *29:14, *29:20 |
| +-+---+- ----+++- ------- | *29:05, *29:12 = *29:11, *29:20 |
| +-+---+- -----+++ ------- | *29:05, *29:15 = *29:20, *29:21 |
| +-+---+- -----++- +------- | *29:05, *29:24 = *29:20, *29:27 |
| +-+---+- -----++- ------- | *29:01:01:01, *29:05 = *29:02:01:01, *29:20 = *29:05, *29:20 |
| +-+----- ++----++- ------- | *29:08N, *29:17 = *29:09, *29:16 |
| +-+----- +-+--++- ------- | *29:10, *29:16 = *29:14, *29:16 |
| +-+----- +---+++- ------- | *29:08N, *29:12 = *29:11, *29:16 |
| +-+----- +----+++ ------- | *29:08N, *29:15 = *29:16, *29:21 |
| +-+----- +-----++- +------- | *29:08N, *29:24 = *29:16, *29:27 |
| +-+----- +-----++- ------- | *29:01:01:01, *29:08N = *29:02:01:01, *29:16 = *29:08N, *29:16 |
| +-+----- -++--++- ------- | *29:10, *29:17 = *29:14, *29:17 |
| +-+----- -+--+++- ------- | *29:09, *29:12 = *29:11, *29:17 |
| +-+----- -+----++ ------- | *29:09, *29:15 = *29:17, *29:21 |
| +-+----- -+-----++- +------- | *29:09, *29:24 = *29:17, *29:27 |
| +-+----- -+-----++- ------- | *29:01:01:01, *29:09 = *29:02:01:01, *29:17 = *29:09, *29:17 |
| +-+----- --+-+++- ------- | *29:10, *29:12 = *29:12, *29:14 |
| +-+----- --+--+++ ------- | *29:10, *29:15 = *29:14, *29:15 |
| +-+----- --+--++- +------- | *29:10, *29:24 = *29:14, *29:24 |
| +-+----- --+--++- ------- | *29:01:01:01, *29:10 = *29:01:01:01, *29:14 |
| +-+----- ----++++ ------- | *29:11, *29:15 = *29:12, *29:21 |
| +-+----- ----+++- +------- | *29:11, *29:24 = *29:12, *29:27 |
| +-+----- ----+++- ------- | *29:01:01:01, *29:11 = *29:02:01:01, *29:12 = *29:11, *29:12 |
| +-+----- -----+++ +------- | *29:15, *29:27 = *29:21, *29:24 |
| +-+----- -----+++ ------- | *29:01:01:01, *29:21 = *29:02:01:01, *29:15 = *29:15, *29:21 |
| +-+----- -----++- +------- | *29:01:01:01, *29:27 = *29:02:01:01, *29:24 = *29:24, *29:27 |
| +----+-- ---+-++- ------- | *29:02:04, *29:20 = *29:18, *29:20 |
| +----+-- -----++- ------- | *29:01:01:01, *29:20 = *29:20, *29:20 |
| +------- +--+-++- ------- | *29:02:04, *29:16 = *29:16, *29:18 |
| +------- +----++- ------- | *29:01:01:01, *29:16 = *29:16, *29:16 |
| +------- -+-+-++- ------- | *29:02:04, *29:17 = *29:17, *29:18 |
| +------- -+---++- ------- | *29:01:01:01, *29:17 = *29:17, *29:17 |
| +------- ---++++- ------- | *29:02:04, *29:12 = *29:12, *29:18 |
| +------- ---+-+++ ------- | *29:02:04, *29:15 = *29:15, *29:18 |
| +------- ---+-++- +------- | *29:02:04, *29:24 = *29:18, *29:24 |
| +------- ---+-++- ------- | *29:01:01:01, *29:02:04 = *29:01:01:01, *29:18 |
| +------- ----+++- ------- | *29:01:01:01, *29:12 = *29:12, *29:12 |
| +------- -----+++ ------- | *29:01:01:01, *29:15 = *29:15, *29:15 |
| +------- -----++- +------- | *29:01:01:01, *29:24 = *29:24, *29:24 |
| --++---- --+--++- ------- | *29:03, *29:10 = *29:03, *29:14 |
| --++---- ---+-++- ------- | *29:02:04, *29:03 = *29:03, *29:18 |
| --++---- -----++- ------- | *29:02:01:01, *29:03 = *29:03, *29:03 |
| --+-+--- --+--++- ------- | *29:04, *29:10 = *29:04, *29:14 |

| | |
|---|---|
| --+-+--- ---+-++- ------- | *29:02:04, *29:04 = *29:04, *29:18 |
| --+-+--- ------++- ------- | *29:02:01:01, *29:04 = *29:04, *29:04 |
| --+--++- --+--++- ------- | *29:10, *29:19 = *29:14, *29:19 |
| --+--++- ---+-++- ------- | *29:02:04, *29:19 = *29:18, *29:19 |
| --+--++- ------++- ------- | *29:02:01:01, *29:19 = *29:05, *29:06 = *29:05, *29:19 = *29:06, *29:19 |
| --+--+-- --+--++- ------- | *29:05, *29:10 = *29:05, *29:14 |
| --+--+-- ---+-++- ------- | *29:02:04, *29:05 = *29:05, *29:18 |
| --+--+-- ------++- ------- | *29:02:01:01, *29:05 = *29:05, *29:05 |
| --+---+- --+--++- ------- | *29:06, *29:10 = *29:06, *29:14 |
| --+---+- ---+-++- ------- | *29:02:04, *29:06 = *29:06, *29:18 |
| --+---+- ------++- ------- | *29:02:01:01, *29:06 = *29:06, *29:06 |
| --+----+ --+--++- ------- | *29:07, *29:10 = *29:07, *29:14 |
| --+----+ ---+-++- ------- | *29:02:04, *29:07 = *29:07, *29:18 |
| --+----+ ------++- ------- | *29:02:01:01, *29:07 = *29:07, *29:07 |
| --+----- +-+--++- ------- | *29:08N, *29:10 = *29:08N, *29:14 |
| --+----- +--+-++- ------- | *29:02:04, *29:08N = *29:08N, *29:18 |
| --+----- +------++- ------- | *29:02:01:01, *29:08N = *29:08N, *29:08N |
| --+----- -+-+--++- ------- | *29:09, *29:10 = *29:09, *29:14 |
| --+----- -+--+-++- ------- | *29:02:04, *29:09 = *29:09, *29:18 |
| --+----- -+---++- ------- | *29:02:01:01, *29:09 = *29:09, *29:09 |
| --+----- --+-+-++- ------- | *29:02:04, *29:10 = *29:02:04, *29:14 = *29:10, *29:18 |
| --+----- --+-+++- ------- | *29:10, *29:11 = *29:11, *29:14 |
| --+----- --+--+++ ------- | *29:10, *29:21 = *29:14, *29:21 |
| --+----- --+--++- +------ | *29:10, *29:27 = *29:14, *29:27 |
| --+----- --+--++- -+----- | *29:10, *29:23 = *29:14, *29:23 |
| --+----- --+--++- --+---- | *29:10, *29:25 = *29:14, *29:25 |
| --+----- --+--++- ---+--- | *29:10, *29:26 = *29:14, *29:26 |
| --+----- --+--++- ----+-- | *29:10, *29:22 = *29:14, *29:22 |
| --+----- --+--++- -----+- | *29:10, *29:13 = *29:13, *29:14 |
| --+----- --+--++- ------+ | *29:10, *29:29 = *29:14, *29:29 |
| --+----- --+--++- ------- | *29:02:01:01, *29:10 = *29:02:01:01, *29:14 = *29:10, *29:10 = *29:10, *29:14 |
| --+----- ---++++- ------- | *29:02:04, *29:11 = *29:11, *29:18 |
| --+----- ---+-++ ------- | *29:02:04, *29:21 = *29:18, *29:21 |
| --+----- ---+-++- +------ | *29:02:04, *29:27 = *29:18, *29:27 |
| --+----- ---+-++- -+----- | *29:02:04, *29:23 = *29:18, *29:23 |
| --+----- ---+-++- ---+--- | *29:02:04, *29:26 = *29:18, *29:26 |
| --+----- ---+-++- ----+-- | *29:02:04, *29:22 = *29:18, *29:22 |
| --+----- ---+-++- -----+- | *29:02:04, *29:13 = *29:13, *29:18 |
| --+----- ---+-++- ------+ | *29:02:04, *29:29 = *29:18, *29:29 |
| --+----- ---+-++- ------- | *29:02:01:01, *29:02:04 = *29:02:01:01, *29:18 |
| --+----- ----+++- ------- | *29:02:01:01, *29:11 = *29:11, *29:11 |
| --+----- ------++ ------- | *29:02:01:01, *29:21 = *29:21, *29:21 |
| --+----- ------++- +------ | *29:02:01:01, *29:27 = *29:27, *29:27 |
| --+----- ------++- -+----- | *29:02:01:01, *29:23 = *29:23, *29:23 |
| --+----- ------++- ---+--- | *29:02:01:01, *29:26 = *29:26, *29:26 |
| --+----- ------++- ----+-- | *29:02:01:01, *29:22 = *29:22, *29:22 |
| --+----- ------++- ------+ | *29:02:01:01, *29:29 = *29:29, *29:29 |
| -------- ---+-++- --+---- | *29:02:04, *29:25 = *29:18, *29:25 |
| -------- ---+-++- ------- | *29:02:04, *29:02:04 = *29:02:04, *29:18 |

*29:01:01:01 = *29:01:01:01 and 29:01:02-29:01:03
*29:02:01:01 = *29:02:01:01-29:02:03 and 29:02:05-29:02:08

# SPECIFICITY TABLE

## HLA-A*29 SSP subtyping

**Specificities and sizes of the PCR products of the 23 primer mixes used for HLA-A*29 SSP subtyping**

| Primer Mix | Size of spec. PCR product[1] | Size of control band[2] | Amplified HLA-A*29 alleles | Other amplified HLA-A alleles[3] |
|---|---|---|---|---|
| **1** | 480 bp | **800 bp** | *29:01:01:01-29:01:03, 29:12, 29:15-29:17, 29:20, 29:24 | |
| **2** | 130 bp | 1070 bp | *29:01:01:02N | |
| **3** | 440 bp | **800 bp** | *29:02:01:01-29:02:03, 29:02:05-29:11, 29:13-29:14, 29:19, 29:21-29:23, 29:26-29:27, 29:29 | |
| **4** | 165 bp | **800 bp** | *29:03 | *23:03:01, 31:05, 32:13, 33:10 |
| **5** | 130 bp | 1070 bp | *29:04 | |
| **6**[4,6] | 105 bp, 130 bp | **800 bp** | *29:05, 29:19-29:20 | *11:01:28, 31:24, 32:02, 32:22 |
| **7**[4,5,7] | 105 bp, 210 bp | 1070 bp | *29:06, 29:19 | *32:12 |
| **8**[4] | 85 bp | **800 bp** | *29:07 | *24:17, 24:41 |
| | | | | |
| **9**[4,5,8] | 80 bp, 170 bp | 1070 bp | *29:08N, 29:16 | *03:27 |
| **10**[4,9] | 95 bp, 170 bp | **800 bp** | *29:09, 29:17 | *03:01:18, 11:01:28, 31:24, 32:33, 33:34 |
| **11**[4,10] | 100 bp, 195 bp | **800 bp** | *29:10, 29:14 | |
| **12**[4,5] | 80 bp | **800 bp** | *29:02:04, 29:18 | *32:01:01-32:01:07, 32:01:09-32:03, 32:05-32:33, 32:35, 74:01-74:13, 74:15 |
| **13**[4,5,11] | 85 bp, 165 bp | 1070 bp | *29:11-29:12 | *31:16 |
| **14** | 200 bp | 1070 bp | *29:01:01:01-29:13, 29:15-29:17, 29:19-29:27, 29:29 | |
| **15** | 240 bp | 1070 bp | *29:01:01:01-29:12, 29:14-29:18, 29:20-29:27, 29:29 | *33:13 |

| | | | | |
|---|---|---|---|---|
| **16**[4] | 95 bp | 1070 bp | *29:15 | *02:221 |
| | | | | |
| **17**[12] | 140 bp, 190 bp | 1070 bp | *29:24, 29:27 | |
| **18** | 185 bp | 1070 bp | *29:23 | |
| **19** | 160 bp | 1070 bp | *29:25 | |
| **20** | 505 bp | 1070 bp | *29:26 | |
| **21** | 185 bp | 1070 bp | *29:22 | *01:20, 01:66, 02:19, 02:44, 02:149, 02:309, 03:95, 24:14, 24:93, 26:22, 30:47, 33:22, 66:09 |
| **22** | 260 bp | 1070 bp | *29:13 | *24:82, 31:07-31:08, 31:10 |
| **23**[4] | 115 bp | **800 bp** | *29:29 | *68:58 |

[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*29 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*29 subtyping.
In addition, wells number 3, 4, 6, 8, 10 to 12 and 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.
[3]Due to the sharing of sequence motifs between HLA-A alleles a few non-HLA-A*29 alleles will be amplified by primer mixes 4, 6 to 10, 12, 13, 15, 16 and 21 to 23.
[4]Short specific PCR fragments are less intense and not as sharp as longer specific bands.
[5]Primer mixes 7, 9, 12 and 13 may give rise to nonspecific amplifications.
[6]Primer mix 6: Specific PCR fragment of 105 bp in the A*29:19 and 29:20 alleles. Specific PCR fragment of 130 bp in the A*29:05 and the A*11:01:28, 31:24, 32:02 and 32:22 alleles.
[7]Primer mix 7: Specific PCR fragment of 105 bp in the A*29:19 allele. Specific PCR fragment of 210 bp in the A*29:06 and the A*32:12 alleles.
[8]Primer mix 9: Specific PCR fragment of 80 bp in the A*29:16 and in the A*03:27 alleles. Specific PCR fragment of 170 bp in the A*29:08N allele.

[9]Primer mix 10: Specific PCR fragment of 95 bp in the A*29:09 and the A*03:01:18, 11:01:28, 31:24, 32:33 and 33:34 alleles. Specific PCR fragment of 170 bp in the A*29:17 allele.
[10]Primer mix 11: Specific PCR fragment of 100 bp in the A*29:14 allele. Specific PCR fragment of 195 bp in the A*29:10 allele.
[11]Primer mix 13: Specific PCR fragment of 85 bp in the A*29:11 allele. Specific PCR fragment of 165 bp in the A*29:12 and in the A*31:16 alleles.
[12]Primer mix 17: Specific PCR fragment of 140 bp in the A*29:24 allele. Specific PCR fragment of 190 bp in the A*29:27 allele.

# INTERPRETATION TABLE

## HLA-A*29 SSP subtyping

### Amplification patterns of the A*29:01 to 29:29 alleles

| | Well[5] | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** |
| **Length of spec.** | 480 | 130 | 440 | 165 | 130 | 105 | 105 | 85 | 80 | 95 | 100 | 80 |
| **PCR product(s)** | | | | | | 130 | 210 | | 170 | 170 | 195 | |
| **Length of int.** | 800 | 1070 | 800 | 800 | 1070 | 800 | 1070 | 800 | 1070 | 800 | 800 | 800 |
| **pos. control[1]** | | | | | | | | | | | | |
| **5'-primer(s)[2]** | 180 | 808 | 219 | 448 | 180 | 219 | 219 | 368 | 97 | 130 | 180 | 180 |
| | 5'-TTT-3' | 5'-CgT-3' | 5'-gCA-3' | 5'-CCT-3' | 5'-TTT-3' | 5'-gCA-3' | 5'-gCA-3' | 5'-gTT-3' | 5'-TCA-3' | 5'-AgA-3' | 5'-TTT-3' | 5'-TTT-3' |
| | | | | | | 448 | 448 | | 413 | 448 | 448 | |
| | | | | | | 5'-CCT-3' | 5'-CCT-3' | | 5'-CCg-3' | 5'-CCT-3' | 5'-CCT-3' | |
| **3'-primer(s)[3]** | 376 | 895 | 376 | 570 | 268 | 282 | 282 | 413 | 224 | 257 | 238 | 218 |
| | 5'-gTg-3' | 5'-CTC-3' | 5'-gTC-3' | 5'-CCg-3' | 5'-ATg-3' | 5'-gAg-3' | 5'-gAg-3' | 5'-gCC-3' | 5'-TCT-3' | 5'-gCA-3' | 5'-CCT-3' | 5'-gCg-3' |
| | | | | | | 282 | 616 | | 454 | 502 | 601 | |
| | | | | | | 5'-gAg-3' | 5'-CgC-3' | | 5'-CTg-3' | 5'-CTT-3' | 5'-CTT-3' | |
| | | | | | | 539 | | | | | | |
| | | | | | | 5'-TCT-3' | | | | | | |
| **Well No.** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** |
| **HLA-A allele** | | | | | | | | | | | | |
| ***29:01:01:01, 29:01:02-29:01:03** | **1** | | | | | | | | | | | |
| ***29:01:01:02N** | **1** | **2** | | | | | | | | | | |
| ***29:02:01:01-29:02:03, 29:02:05-29:02:08, *29:21[4]** | | | **3** | | | | | | | | | |
| ***29:02:04** | | | | | | | | | | | | **12** |
| ***29:03** | | | **3** | **4** | | | | | | | | |
| ***29:04** | | | **3** | | **5** | | | | | | | |
| ***29:05** | | | **3** | | | **6** | | | | | | |
| ***29:06** | | | **3** | | | | **7** | | | | | |
| ***29:07** | | | **3** | | | | | **8** | | | | |
| ***29:08N** | | | **3** | | | | | | **9** | | | |
| ***29:09** | | | **3** | | | | | | | **10** | | |
| **Well No.** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** |

# INTERPRETATION TABLE

## HLA-A*29 SSP subtyping

### Amplification patterns of the A*29:01 to 29:29 alleles

| Well[5] | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | |
| 85 | 200 | 240 | 95 | 140 | 185 | 160 | 505 | 185 | 260 | 115 | Length of spec. |
| 165 | | | | 190 | | | | | | | PCR product(s) |
| 1070 | 1070 | 1070 | 1070 | 1070 | 1070 | 1070 | 1070 | 1070 | 1070 | 800 | Length of int. |
| | | | | | | | | | | | pos. control[1] |
| 97 | 98 | 98 | 134 | 448 | 180 | 98 | 3rd I | 355 | 98 | 355 | 5'-primer(s)[2] |
| 5'-TCA 3' | 5'-CAC 3' | 5'-CAC 3' | 5'-CCT 3' | 5'-CCT 3' | 5'-TTT 3' | 5'-CAC 3' | 5'-ATA 3' | 5'-CCg 3' | 5'-CAC 3' | 5'-CCA 3' | |
| 448 | | | 484 | | | | | | | | |
| 5'-CCT 3' | | | 5'-ACg 3' | | | | | | | | |
| 221 | 257 | 299 | 257 | 545 | 326 | 217 | 667 | 497 | 317 | 430 | 3'-primer(s)[3] |
| 5'-ACA 3' | 5'-gCA 3' | 5'-TCg 3' | 5'-gCA 3' | 5'-AgC 3' | 5'-TgA 3' | 5'-TgA 3' | 5'-ggT 3' | 5'-TgA 3' | 5'-ggA 3' | 5'-gCT 3' | |
| 494 | | | 538 | 595 | | | | | | | |
| 5'-TCg 3' | | | 5'-CAA 3' | 5'-CCA 3' | | | | | | | |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Well No. |
| | | | | | | | | | | | HLA-A allele |
| | 14 | 15 | | | | | | | | | *29:01:01:01, 29:01:02-29:01:03 |
| | 14 | 15 | | | | | | | | | *29:01:01:02N |
| | 14 | 15 | | | | | | | | | *29:02:01:01-29:02:03, 29:02:05-29:02:08, *29:21[4] |
| | 14 | 15 | | | | | | | | | *29:02:04 |
| | 14 | 15 | | | | | | | | | *29:03 |
| | 14 | 15 | | | | | | | | | *29:04 |
| | 14 | 15 | | | | | | | | | *29:05 |
| | 14 | 15 | | | | | | | | | *29:06 |
| | 14 | 15 | | | | | | | | | *29:07 |
| | 14 | 15 | | | | | | | | | *29:08N |
| | 14 | 15 | | | | | | | | | *29:09 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Well No. |

| **Length of spec.** | **480** | **130** | **440** | **165** | **130** | **105** | **105** | **85** | **80** | **95** | **100** | **80** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PCR product(s)** | | | | | | **130** | **210** | | **170** | **170** | **195** | |
| **Well No.** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** |
| ***29:10** | | | **3** | | | | | | | | **11** | |
| ***29:11** | | | **3** | | | | | | | | | |
| ***29:12** | **1** | | | | | | | | | | | |
| ***29:13** | | | **3** | | | | | | | | | |
| ***29:14** | | | **3** | | | | | | | | **11** | |
| ***29:15** | **1** | | | | | | | | | | | |
| ***29:16** | **1** | | | | | | | | **9** | | | |
| ***29:17** | **1** | | | | | | | | | **10** | | |
| ***29:18** | | | | | | | | | | | | **12** |
| ***29:19** | | | **3** | | | **6** | **7** | | | | | |
| ***29:20** | **1** | | | | | **6** | | | | | | |
| ***29:22** | | | **3** | | | | | | | | | |
| ***29:23** | | | **3** | | | | | | | | | |
| ***29:24** | **1** | | | | | | | | | | | |
| ***29:25** | | | | | | | | | | | | |
| ***29:26** | | | **3** | | | | | | | | | |
| ***29:27** | | | **3** | | | | | | | | | |
| ***29:29** | | | **3** | | | | | | | | | |
| ***01:20, 01:66, 02:19, 02:44, 02:149, 02:309, 03:95, 24:14, 24:93, 26:22, 30:47, 33:22, 66:09** | | | | | | | | | | | | |
| ***02:221** | | | | | | | | | | | | |
| ***03:01:18, 33:34** | | | | | | | | | | **10** | | |
| ***03:27** | | | | | | | | | **9** | | | |
| ***11:01:28, 31:24** | | | | | | **6** | | | | **10** | | |
| ***23:03:01, 31:05, 33:10** | | | | **4** | | | | | | | | |
| ***24:17, 24:41** | | | | | | | | **8** | | | | |
| ***24:82, 31:07-31:08, 31:10** | | | | | | | | | | | | |
| ***31:16** | | | | | | | | | | | | |
| ***32:01:01-32:01:07, 32:01:09-32:01:10, 32:03, 32:05-32:11Q, 32:14-32:21, 32:23-32:32, 32:35, 74:01-74:13, 74:15** | | | | | | | | | | | | **12** |
| ***32:02, 32:22** | | | | | | **6** | | | | | | **12** |
| ***32:12** | | | | | | | **7** | | | | | **12** |
| **Well No.** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** |

| 85 | 200 | 240 | 95 | 140 | 185 | 160 | 505 | 185 | 260 | 115 | Length of spec. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 165 | | | | 190 | | | | | | | PCR product(s) |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Well No. |
| | 14 | 15 | | | | | | | | | *29:10 |
| 13 | 14 | 15 | | | | | | | | | *29:11 |
| 13 | 14 | 15 | | | | | | | | | *29:12 |
| | 14 | | | | | | | | 22 | | *29:13 |
| | | 15 | | | | | | | | | *29:14 |
| | 14 | 15 | 16 | | | | | | | | *29:15 |
| | 14 | 15 | | | | | | | | | *29:16 |
| | 14 | 15 | | | | | | | | | *29:17 |
| | | 15 | | | | | | | | | *29:18 |
| | 14 | | | | | | | | | | *29:19 |
| | 14 | 15 | | | | | | | | | *29:20 |
| | 14 | 15 | | | | | | 21 | | | *29:22 |
| | 14 | 15 | | | 18 | | | | | | *29:23 |
| | 14 | 15 | | 17 | | | | | | | *29:24 |
| | 14 | 15 | | | | 19 | | | | | *29:25 |
| | 14 | 15 | | | | | 20 | | | | *29:26 |
| | 14 | 15 | | 17 | | | | | | | *29:27 |
| | 14 | 15 | | | | | | | | 23 | *29:29 |
| | | | | | | | | 21 | | | *01:20, 01:66, 02:19, 02:44, 02:149, 02:309, 03:95, 24:14, 24:93, 26:22, 30:47, 33:22, 66:09 |
| | | | 16 | | | | | | | | *02:221 |
| | | | | | | | | | | | *03:01:18, 33:34 |
| | | | | | | | | | | | *03:27 |
| | | | | | | | | | | | *11:01:28, 31:24 |
| | | | | | | | | | | | *23:03:01, 31:05, 33:10 |
| | | | | | | | | | | | *24:17, 24:41 |
| | | | | | | | | | 22 | | *24:82, 31:07-31:08, 31:10 |
| 13 | | | | | | | | | | | *31:16 |
| | | | | | | | | | | | *32:01:01-32:01:07, 32:01:09-32:01:10, 32:03, 32:05-32:11Q, 32:14-32:21, 32:23-32:32, 32:35, 74:01-74:13, 74:15 |
| | | | | | | | | | | | *32:02, 32:22 |
| | | | | | | | | | | | *32:12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Well No. |

| **Length of spec.** | **480** | **130** | **440** | **165** | **130** | **105** | **105** | **85** | **80** | **95** | **100** | **80** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PCR product(s)** | | | | | | **130** | **210** | | **170** | **170** | **195** | |
| **Well No.** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** |
| ***32:13** | | | | **4** | | | | | | | | **12** |
| ***32:33** | | | | | | | | | | **10** | | **12** |
| ***33:13** | | | | | | | | | | | | |
| ***68:58** | | | | | | | | | | | | |
| **HLA-A allele** | | | | | | | | | | | | |
| **Well No.** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** |

[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*29 subtyping. .
In addition, wells number 3, 4, 6, 8, 10 to 12 and 23 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 2nd, 3rd or 4th exons or in the 3rd intron, 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.
[3]The nucleotide position, in the 2nd, 3rd or 4th exons, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 85 | 200 | 240 | 95 | 140 | 185 | 160 | 505 | 185 | 260 | 115 | Length of spec. |
| 165 | | | | 190 | | | | | | | PCR product(s) |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Well No. |
| | | | | | | | | | | | *32:13 |
| | | | | | | | | | | | *32:33 |
| | | 15 | | | | | | | | | *33:13 |
| | | | | | | | | | | 23 | *68:58 |
| | | | | | | | | | | | HLA-A allele |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Well No. |

[4]This lot of the HLA-A*29 subtyping kit cannot distinguish the A*29:02:01:01-29:02:03 and 29:02:05-29:02:08 and the A*29:21 alleles.
[5]Primer mix 6: Specific PCR fragment of 105 bp in the A*29:19 and 29:20 alleles. Specific PCR fragment of 130 bp in the A*29:05 and the A*11:01:28, 31:24, 32:02 and 32:22 alleles.
Primer mix 7: Specific PCR fragment of 105 bp in the A*29:19 allele. Specific PCR fragment of 210 bp in the A*29:06 and the A*32:12 alleles.
Primer mix 9: Specific PCR fragment of 80 bp in the A*29:16 and in the A*03:27 alleles. Specific PCR fragment of 170 bp in the A*29:08N allele.
Primer mix 10: Specific PCR fragment of 95 bp in the A*29:09 and the A*03:01:18, 11:01:28, 31:24, 32:33 and 33:34 alleles. Specific PCR fragment of 170 bp in the A*29:17 allele.
Primer mix 11: Specific PCR fragment of 100 bp in the A*29:14 allele. Specific PCR fragment of 195 bp in the A*29:10 allele.
Primer mix 13: Specific PCR fragment of 85 bp in the A*29:11 allele. Specific PCR fragment of 165 bp in the A*29:12 and in the A*31:16 alleles.
Primer mix 17: Specific PCR fragment of 140 bp in the A*29:24 allele. Specific PCR fragment of 190 bp in the A*29:27 allele.

# CELL LINE VALIDATION SHEET

## HLA-A*29 SSP subtyping kit

| | | | | | Well | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| | | | | Lot No.: | 200958401 | 200958402 | 200958403 | 200958404 | 201184705 | 201071406 | 200958407 | 201184708 | 200958409 | 200958410 | 201071411 | 201184712 | 200958413 | 201071414 | 201071415 | 201071416 |
| | IHWC cell line | | A* | 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*29 SSP subtyping kit

| | | | | | Well | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| | | | | Lot No.: | 201184717 | 201184718 | 201184719 | 201184720 | 201184721 | 201184722 | 201184723 |
| | IHWC cell line | | A* | 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*29 SSP

**Product number:** **101.428-12u – without *Taq* polymerase**
**Lot number:** **05M**
**Expiry date:** **2013-November-01**
**Number of tests:** **12**
**Number of wells per test:** **23**

**Well specifications:**

| Well No. | Production No. | Well No. | Production No. | Well No. | Production No. |
|---|---|---|---|---|---|
| 1 | 2009-584-01 | 9 | 2009-584-09 | 17 | 2011-847-17 |
| 2 | 2009-584-02 | 10 | 2009-584-10 | 18 | 2011-847-18 |
| 3 | 2009-584-03 | 11 | 2010-714-11 | 19 | 2011-847-19 |
| 4 | 2009-584-04 | 12 | 2011-847-12 | 20 | 2011-847-20 |
| 5 | 2011-847-05 | 13 | 2009-584-13 | 21 | 2011-847-21 |
| 6 | 2010-714-06 | 14 | 2010-714-14 | 22 | 2011-847-22 |
| 7 | 2009-584-07 | 15 | 2010-714-15 | 23 | 2011-847-23 |
| 8 | 2011-847-08 | 16 | 2010-714-16 | | |

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 2, 4 to 7, 9 to 11, 13 and 16 to 23 were available. The specificities of the primers in primer solutions 4, 6, 7, 10, 11, 21 and 22 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer. In primer solutions 2, 5, 9, 13, 17 to 20 and 23 it was only possible to test the 5'-primer, the 3'-primer was not possible to test. In primer solution 16 it was only possible to the 3'-primer, the 5'-primer was not possible to test. In primer solution 6 and 7 one of the 3'-primers was not possible to test, and in primer solution 10 one of the 5'-primers was not possible to test.

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

***Date of approval:*** 2011-June-29

***Approved by:***

**Production Quality Control**

# Declaration of Conformity

**Product name:** *Olerup* SSP® HLA-A*29
**Product number:** 101.428-12u
**Lot number:** 05M

**Intended use:** HLA-A*29 high resolution histocompatibility testing

**Manufacturer:** *Olerup* SSP AB
Franzengatan 5
SE-112 51 Stockholm, Sweden
***Phone:*** +46-8-717 88 27
***Fax:*** +46-8-717 88 18

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

The Technical Documentation File is maintained at *Olerup* SSP AB, Franzengatan 5, SE-112 51 Stockholm, 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-25

Ann-Cathrin Jareman
Head of QA and Regulatory Affairs

## ADDRESSES:

**Manufacturer:**
**Olerup SSP AB**, Franzengatan 5, SE-112 51 Stockholm, Sweden.
***Tel:*** +46-8-717 88 27
***Fax:*** +46-8-717 88 18
***E-mail:*** info-ssp@olerup.com
***Web page:*** http://www.olerup-ssp.com

**Distributed by:**
**Olerup GmbH**, Löwengasse 47 / 6, AT-1030 Vienna, Austria.
***Tel:*** +43-1-710 15 00
***Fax:*** +43-1-710 15 00 10
***E-mail:*** support-at@olerup.com
***Web page:*** http://www.olerup.com

**Olerup Inc**., 901 S. Bolmar St., Suite R, West Chester, PA 19382
***Tel:*** 1-877-OLERUP1
***Fax:*** 610-344-7989
***E-mail:*** info.us@olerup.com
***Web page:*** http://www.olerup.com

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