

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

## **Olerup SSP<sup>®</sup> DPB1-DQ-DR SSP Combi Tray**

<b>Product number:</b>	101.709-24/06– including <i>Taq</i> pol. 101.709-24u/06u– without <i>Taq</i> pol.
<b>Lot number:</b>	12N
<b>Expiry date:</b>	2014-July-01
<b>Number of tests:</b>	24 tests – Product No. 101.709-24/24u 6 tests – Product No. 101.709-06/06u
<b>Number of wells per test:</b>	95 + 1
<b>Storage - pre-aliquoted primers:</b>	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. 12N.**

### **CHANGES COMPARED TO THE PREVIOUS *OLERUP SSP<sup>®</sup>* DPB1-DQ-DR Lot**

The Lot-specific information for DPB1-DQ-DR including and without *Taq* polymerase is now described in one common Product Insert.

The **DPB1** specificity and interpretation tables have been updated for the DPB1 alleles described since the previous *Olerup SSP<sup>®</sup>* DPB1-DQ-DR Combi Tray lot was made (**Lot No. 71G**).

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

Well	5'-primer	3'-primer	rationale
3	Modified	-	Improved specificity of primer pair.
11	-	Added	Primer added for the DPB1*119:01 allele.
14	Added	-	Primer added for the DPB1*54:01 allele.
16	Added	Added	Primer pair added for the DPB1*127:01 allele, increased yield of HLA-specific PCR product.
23	Added	Added	Primer pair added for the DPB1*127:01 allele.

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

26	Added	-	Primers added for the DPB1*101:01 and 123:01 alleles.
32	Added	-	Primer added for the DPB1*130:01 allele.
34	-	-	Exchanged positive control primer pair.
37	Modified	-	Improved specificity of primer pair, increased yield of PCR product, exchanged positive control primer pair.
41	-	Added	Primer added for the DPB1*134:01 allele.
42	-	Added	Primer added for the DPB1*128:01 allele.
46	-	-	Exchanged positive control primer pair.
47	-	-	Exchanged positive control primer pair.
48	-	-	Exchanged positive control primer pair.

The **DQ low resolution/DQB1\*03 medium to high resolution** specificity and interpretation tables have been updated for the HLA-DQB1 alleles described since the previous *Olerup* SSP® DPB1-DQ-DR SSP Combi Tray lot was made (**Lot No. 71G**).

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

Well	5'-primer	3'-primer	rationale
53	Modified	-	Improved specificity of specific primer pair.
56	Added	-	Primer added for the DQB1*04:03:02 allele.

The **DR low resolution** specificity and interpretation tables have been updated for the HLA-DRB1 alleles described since the previous *Olerup* SSP® DPB1-DQ-DR SSP Combi Tray lot was made (**Lot No. 71G**).

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

Well	5'-primer	3'-primer	rationale
73	Added	-	Primer added for the DRB1*01:33N allele.
75	-	Added	Primer added for the DRB1*15:50N allele.
76	-	Exchanged	Improved allelic resolution.
87	Added	-	Primer added for the DRB1*13:103 allele.
88	Added	-	Primer added for the DRB1*13:103 allele.
93	Exchanged	-	Improved allelic resolution.
94	-	Added	Primer pair added for the DRB4*01:08 allele.

Change in revision R01 compared to R00:

1. The DPB1\*31:01 allele is not amplified by primer mix 4. This has been corrected in the Specificity and Interpretation Tables.

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

**Lot-specific information**

Well **96** contains Negative Control primer pairs, that will amplify more than 95% of the *Olerup SSP*<sup>®</sup> HLA Class I, DRB, DQB1 and DPB1 amplicons as well as an amplicon generated by a positive control primer pair.

PCR product sizes range from 75 to 430 base pairs.

The PCR product generated by the control primer pair is 430 base pairs.

Length of PCR product	105	200	105	80	75	80
<b>5'-primer<sup>1</sup></b>	<b>164</b>	<b>340</b>	<b>440</b>	<b>45</b>	<b>45</b>	<b>43</b>
	5'-CAC <sup>3'</sup>	5'-Agg <sup>3'</sup>	5'-TTA <sup>3'</sup>	5'-Tg g <sup>3'</sup>	5'-Tg g <sup>3'</sup>	5'-Tg g <sup>3'</sup>
<b>3'-primer<sup>2</sup></b>	<b>231</b>	<b>2<sup>nd</sup> I</b>	<b>507</b>	<b>59</b>	<b>58</b>	<b>57</b>
	5'-TgC <sup>3'</sup>	5'-AAA <sup>3'</sup>	5'-TTg <sup>3'</sup>	5'-CTC <sup>3'</sup>	5'-ggC <sup>3'</sup>	5'-CTC <sup>3'</sup>
<b>A*</b>	<b>+</b>	<b>+</b>	<b>+</b>			
<b>B*</b>	<b>+</b>	<b>+</b>	<b>+</b>			
<b>Cw*</b>	<b>+</b>	<b>+</b>	<b>+</b>			
<b>DRB1</b>				<b>+</b>	<b>+</b>	
<b>DRB3</b>				<b>+</b>	<b>+</b>	
<b>DRB5</b>				<b>+</b>		
<b>DQB1</b>					<b>+</b>	
<b>DPB1</b>						<b>+</b>

<sup>1</sup>The nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2<sup>nd</sup> or 3<sup>rd</sup> exon, matching the specificity-determining 3'-end of the primer is given. Nucleotide and codon numbering as on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

<sup>2</sup>The nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2<sup>nd</sup> or 3<sup>rd</sup> exon or the 2<sup>nd</sup> intron, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide and codon numbering as on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

## PRODUCT DESCRIPTION

### DPB1-DQ-DR SSP Combi Tray

#### CONTENT

The primer set contains 5'- and 3'-primers for identifying the DPB1\*01:01 to DPB1\*134:01 alleles.

The primer set contains 5'- and 3'-primers for grouping the DQB1 alleles in to the serological groups DQ2 to DQ9, as well as 5'- and 3'-primers for medium to high resolution typing of the DQ3 serological group.

The primer set contains 5'- and 3'-primers for grouping the DRB1\*01:01 to DRB1\*10:01 alleles into the corresponding serological groups DR1 to DR18 as well as primer pairs for recognizing the DRB3, DRB4 and DRB5 groups of alleles.

*Please note that DQB1 amplifications usually are somewhat less pronounced than e.g. DRB and DQA1 amplifications even when using the same DNA preparation and exactly the same experimental procedures.*

#### PLATE LAYOUT

Each test consists of 96 PCR reactions in a 96 well cut PCR plate.

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96

Wells 1 to 48 – DPB1 primers.

Wells 49 to 72 – DQ low resolution/ DQB1\*03 medium to high resolution primers.

Wells 73 to 95 – DR low resolution primers.

Well 96 – Negative Control.

The 96 well cut PCR plate is marked with 'DPB1-DQ-DR' in silver/gray ink.

Well No. 1 is marked with the Lot No. '12N'.

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.

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

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

## INTERPRETATION

Only DPB1 alleles will be amplified by the 48 wells of the DPB1 primer set, **wells 1 to 48**. Thus, the interpretation of DPB1 typings is not influenced by the DPB2 gene or other HLA class II genes.

Only the DQB1 alleles will be amplified by the 24 wells of the DQ low resolution/ DQB1\*03 medium to high resolution primer set, **wells 49 to 72**. Thus, the interpretation of DQ low resolution typings is not influenced the DQB2 and DQB3 genes.

Only HLA-DRB alleles will be amplified by the 23 wells of the DR low resolution primer set, **wells 73 to 95**. Thus, the interpretation of DR low resolution typings is not influenced by other HLA class II genes.

## UNIQUELY IDENTIFIED ALLELES

All the phenotypically different DPB1 alleles, i.e. **DPB1\*01:01 to DPB1\*134:01**, recognized by the HLA Nomenclature Committee in July 2011<sup>1</sup> will give rise to unique amplification patterns by the primers in the DPB1 primer set, **wells 1 to 48**.

The DPB1 typing kit cannot distinguish the following silent mutations: DPB1\*01:01:01-01:01:03, DPB1\*02:01:02, 02:01:04-02:01:05 and 02:01:07, DPB1\*03:01:01-03:01:02, DPB1\*04:01:01-04:01:02, DPB1\*04:02:01-04:02:01:02, DPB1\*05:01:01-05:01:02, DPB1\*11:01:01-11:01:02, the DPB1 \*20:01:01-20:01:02 and DPB1 \*41:01:01-41:01:02.

<sup>1</sup>DPB1 alleles listed on the IMGT/HLA web page 2011-July-14, release 3.5.0, [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla).

All the DQB1 alleles, i.e. **DQB1 \*05:01:01:01 to 05:12, DQB1\*06:01:01 to 06:44, DQB1\*02:01:01 to 02:06, DQB1\*03:01:01:01 to 03:38 and DQB1\*04:01:01 to 04:08**, recognized by the HLA Nomenclature Committee in July 2011<sup>1</sup> will be amplified by the primers in the DQ low resolution/DQB1\*03 medium to high resolution SSP primer set, **wells 49 to 72**. The DQB1 alleles will be grouped into their corresponding serological specificities<sup>2</sup>, i.e.:

DQ5(1) =	DQB1*05:01:01-05:05
DQ6(1) =	DQB1*06:01:01-06:44
DQ2 =	DQB1*02:01:01-02:05
DQ3 =	DQB1*03:06, 03:10, 03:14
DQ7(3) =	DQB1*03:01:01-03:01:06, 03:04, 03:09, 03:13, 03:16, 03:19
DQ8(3) =	DQB1*03:02:01-03:02:05, 03:05:01-03:05:04, 03:07-03:08, 03:11, 03:18
DQ9(3) =	DQB1*03:03:02:01-03:03:04, 03:12, 03:15, 03:17, 03:20
DQ4 =	DQB1*04:01-04:02

<sup>1</sup>DQB1 alleles listed on the IMGT/HLA web page 2011-July-14, release 3.5.0, [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla).

<sup>2</sup>The serological split of the DQB1\*05:05, DQB1\*06:06 to 06:07 alleles, the DQB1\*06:10, 06:13, 06:15-06:24 and 06:27 to 06:44, the DQB1\*02:04-02:06, the DQB1\*03:07-03:09 and 03:11- 03:38 alleles and the DQB1:04:0301-04:08 alleles is not known. In this table we have used the expert-assigned serological grouping in Tissue Antigens (2009) 73:95-170, and also inferred the serological grouping from the naming of the sequence-defined allele.

101.709-24/06 – including *Taq* pol., IFU-01  
101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
“Instructions for Use” (IFU)

Lot No.: **12N**

**Lot-specific information**

All the HLA-DRB1, -DRB3, -DRB4<sup>1</sup> and -DRB5 alleles, i.e. **DRB1 \*01:01:01 to 10:03, DRB3\*01:01:02:01 to DRB3\*03:03, DRB4\*01:01:01:01 to DRB4\*01:08, DRB5\*01:01:01 to DRB5\*02:05**, recognized by the HLA Nomenclature Committee in July 2011<sup>2</sup> will be amplified by the primers in the DR low resolution SSP kit. The HLA-DRB alleles will be grouped into their corresponding serological specificities<sup>3</sup>.

<sup>1</sup>The DRB4\*02:01N and DRB4\*03:01N null alleles will not be amplified by the DR low resolution primer set.

<sup>2</sup>DRB alleles listed on the IMGT/HLA web page 2011-July-14, release 3.5.0, [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla).

<sup>3</sup>The DRB1\*08:09 and DRB1\*14:15 alleles yield identical amplification patterns in the DPB1-DQ-DR kit. These alleles can be separated by the respective high resolution primer sets.

The DRB1\*08:20 and the DRB1\*13:18, 13:47 and 13:55 alleles yield identical amplification patterns in the DPB1-DQ-DR kit. These alleles can be separated by the respective high resolution primer sets.

The DRB1\*08:31 and 08:41 and the DRB1\*11:67 alleles yield identical amplification patterns in the DPB1-DQ-DR kit. These alleles can be separated by the respective high resolution primer sets.

The DRB1\*13:13 and 13:119 and the DRB1\*14:84 and 14:116 alleles yield identical amplification patterns in the DPB1-DQ-DR kit. These alleles can be separated by the respective high resolution primer sets.

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

## SPECIFICITY TABLE

### DPB1 high resolution primer set

Specificities and sizes of the PCR products of the 48 primer mixes used for DPB1 SSP typing

Primer Mix	Size of spec. PCR product <sup>1</sup>	Size of control band <sup>2</sup>	Amplified DPB1 alleles
<b>1</b>	245 bp	<b>515 bp</b>	*01:01:01-01:01:03, 03:01:01-03:01:02, 13:01, 25:01, 26:01:01-26:01:02, 29:01, 37:01, 44:01, 50:01, 52:01, 56:01, 61:01N, 78:01, 79:01, 88:01, 90:01, 92:01, 104:01, 107:01, 110:01, 111:01, 114:01, 118:01, 122:01, 124:01, 127:01, 132:01, 133:01
<b>2</b>	220 bp	<b>515 bp</b>	*01:01:01-01:01:03, 03:01:01-03:01:02, 18:01, 20:01:01-20:01:02, 25:01, 26:01:01-26:01:02, 27:01, 36:01, 50:01, 52:01, 56:01, 61:01N, 78:01, 79:01, 85:01, 87:01, 89:01, 90:01, 92:01, 104:01, 111:01, 114:01, 118:01, 122:01, 124:01, 127:01, 130:01, 132:01
<b>3<sup>3,4,5</sup></b>	100 bp	430 bp	*01:01:01-01:01:03, 04:01:01:01-04:01:02, 11:01:01-11:01:02, 13:01, 15:01, 26:01:01-26:01:02, 27:01, 31:01, 33:01, 39:01, 40:01, 56:01, 65:01, 66:01, 72:01, 74:01, 85:01, 89:01, 90:01, 96:01, 99:01, 102:01, 107:01, 110:01, 117:01, 118:01, 120:01N, 121:01, 125:01, 126:01, 127:01, 128:01, 133:01, 134:01
<b>4</b>	140 bp	430 bp	*01:01:01-01:01:03, 04:01:01:01-04:01:02, 24:01, 26:01:01-26:01:02, 27:01, 28:01, 39:01, 40:01, 49:01, 51:01, 53:01, 56:01, 65:01, 66:01, 72:01, 76:01, 85:01, 89:01, 90:01, 92:01, 96:01, 99:01, 102:01, 118:01, 120:01N, 121:01, 122:01, 125:01, 126:01, 127:01, 128:01, 134:01
<b>5</b>	235 bp	<b>515 bp</b>	*01:01:01-01:01:03, 08:01, 19:01, 50:01, 57:01, 65:01, 68:01, 73:01, 75:01, 84:01, 90:01, 106:01, 118:01, 122:01, 127:01
<b>6</b>	165 bp	430 bp	*01:01:01-01:01:03, 13:01, 26:01:01-26:01:02, 65:01, 107:01, 118:01, 122:01, 127:01, 133:01
<b>7</b>	160 bp	430 bp	*01:01:01-01:01:03, 13:01, 26:01:01-26:01:02, 56:01, 65:01, 76:01, 90:01, 92:01, 107:01, 110:01, 118:01, 122:01, 125:01, 127:01, 133:01
<b>8</b>	210 bp	<b>515 bp</b>	*02:01:02-02:02, 04:01:01:01-04:02:01:02, 05:01:01-05:01:02, 08:01, 16:01, 19:01, 22:01, 23:01, 24:01, 32:01, 33:01, 38:01, 39:01, 40:01, 46:01, 47:01, 48:01, 49:01, 51:01, 53:01, 60:01,

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

			62:01, 63:01, 65:01, 68:01, 71:01, 75:01, 77:01, 80:01, 81:01, 82:01, 84:01, 94:01, 96:01, 97:01, 99:01, 100:01, 101:01, 103:01, 105:01, 106:01, 112:01, 115:01, 116:01, 120:01N, 121:01, 123:01, 126:01, 128:01, 134:01
<b>9</b>	165 bp	430 bp	*02:01:02-02:01:05, 02:01:06 <sup>w</sup> , 02:01:07-02:02, 04:02:01:01-04:02:01:02, 05:01:01-05:01:02, 06:01, 16:01, 17:01, 18:01, 19:01, 20:01:01- 20:01:02, 21:01, 22:01, 23:01, 30:01, 32:01, 34:01, 36:01, 38:01, 41:01:01-41:01:02, 46:01, 47:01, 48:01, 55:01, 58:01, 59:01, 60:01, 62:01, 63:01, 64:01N, 69:01, 71:01, 77:01, 80:01, 82:01, 83:01, 86:01, 87:01, 91:01, 93:01, 94:01, 95:01, 97:01, 98:01, 100:01, 101:01, 103:01, 105:01, 106:01, 108:01, 109:01, 112:01, 113:01, 115:01, 116:01, 123:01, 129:01, 130:01, 131:01
<b>10</b>	220 bp	<b>515 bp</b>	*02:01:02-02:02, 08:01, 16:01, 19:01, 22:01, 32:01, 33:01, 41:01:01-41:01:02, 46:01, 47:01, 48:01, 71:01, 81:01, 95:01, 101:01, 103:01, 106:01, 115:01, 123:01
<b>11</b>	185 bp	<b>515 bp</b>	*02:01:02-02:01:07, 04:01:01:01-04:02:01:02, 23:01, 24:01, 32:01, 33:01, 41:01:01-41:01:02, 46:01, 47:01, 51:01, 59:01, 60:01, 66:01, 71:01, 72:01, 73:01, 75:01, 77:01, 80:01, 81:01, 82:01, 83:01, 86:01, 94:01, 99:01, 105:01, 108:01, 109:01, 113:01, 115:01, 119:01, 120:01N, 121:01, 123:01, 126:01, 128:01, 129:01, 134:01
<b>12<sup>3</sup></b>	80 bp	<b>515 bp</b>	*02:01:02, 02:01:03 <sup>w</sup> , 02:01:04-02:01:07, 06:01, 08:01, 09:01, 10:01, 16:01, 17:01, 29:01, 32:01, 37:01, 41:01:01-41:01:02, 44:01, 46:01, 48:01, 64:01N, 81:01, 86:01, 88:01, 93:01, 109:01, 113:01, 115:01, 123:01, 131:01
<b>13</b>	180 bp	430 bp	*02:02, 05:01:01-05:01:02, 19:01, 22:01, 24:01, 38:01, 47:01, 97:01, 100:01, 101:01, 106:01
<b>14<sup>3</sup></b>	105 bp, 175 bp	430 bp	*02:02, 05:01:01-05:01:02, 21:01, 22:01, 30:01, 36:01, 38:01, 54:01, 97:01, 100:01, 101:01, 114:01
<b>15</b>	200 bp	430 bp	*02:02, 48:01, 95:01, 99:01, 100:01, 101:01, 112:01, 116:01
<b>16<sup>3</sup></b>	80 bp, 165 bp, 210 bp	430 bp	*03:01:01-03:01:02, 04:02:01:01-04:02:01:02, 14:01, 18:01, 20:01:01-20:01:02, 25:01, 28:01, 35:01:01-35:01:02, 45:01, 49:01, 50:01, 51:01, 53:01, 57:01, 59:01, 60:01, 61:01N, 68:01, 70:01, 73:01, 75:01, 76:01, 77:01, 78:01, 79:01, 80:01, 82:01, 83:01, 91:01, 92:01, 98:01, 99:01, 104:01,



101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

			105:01, 108:01, 111:01, 116:01, 119:01, 122:01, 124:01, 127:01, 129:01, 130:01, 132:01
<b>17</b>	260 bp	<b>515 bp</b>	*03:01:01-03:01:02, 06:01, 09:01, 10:01, 11:01:01-11:01:02, 13:01, 14:01, 17:01, 20:01:01- 20:01:02, 21:01, 25:01, 26:01:01-26:01:02, 27:01, 29:01, 30:01, 35:01:01-35:01:02, 36:01, 37:01, 44:01, 45:01, 52:01, 54:01, 55:01, 56:01, 58:01, 61:01N, 64:01N, 67:01, 69:01, 70:01, 76:01, 78:01, 79:01, 85:01, 87:01, 88:01, 91:01, 92:01, 93:01, 98:01, 104:01, 107:01, 110:01, 111:01, 114:01, 119:01, 124:01, 125:01, 130:01, 131:01, 132:01, 133:01
<b>18</b>	180 bp	430 bp	*03:01:01-03:01:02, 06:01, 09:01, 14:01, 17:01, 20:01:01-20:01:02, 29:01, 35:01:01-35:01:02, 44:01, 61:01N, 64:01N, 69:01, 70:01, 76:01, 78:01, 86:01, 88:01, 91:01, 92:01, 98:01, 104:01, 111:01, 119:01, 124:01, 130:01, 131:01, 132:01
<b>19</b>	200 bp	430 bp	*03:01:01-03:01:02, 06:01, 11:01:01-11:01:02, 14:01, 20:01:01-20:01:02, 25:01, 29:01, 44:01, 45:01, 52:01, 56:01, 61:01N, 64:01N, 67:01, 69:01, 70:01, 74:01, 76:01, 78:01, 87:01, 91:01, 92:01, 104:01, 111:01, 114:01, 119:01, 124:01, 130:01
<b>20</b>	235 bp	<b>515 bp</b>	*03:01:01-03:01:02, 09:01, 10:01, 13:01, 14:01, 25:01, 26:01:01-26:01:02, 29:01, 35:01:01- 35:01:02, 37:01, 44:01, 45:01, 52:01, 54:01, 56:01, 61:01N, 67:01, 70:01, 76:01, 78:01, 79:01, 88:01, 92:01, 104:01, 107:01, 110:01, 111:01, 114:01, 119:01, 124:01, 125:01, 132:01, 133:01
<b>21<sup>3</sup></b>	100 bp	430 bp	*03:01:01-03:01:02, 09:01, 14:01, 29:01, 35:01:01-35:01:02, 44:01, 50:01, 57:01, 61:01N, 70:01, 76:01, 78:01, 88:01, 92:01, 104:01, 111:01, 119:01, 124:01, 132:01
<b>22</b>	185 bp	430 bp	*04:01:01:01-04:01:02, 24:01, 33:01, 39:01, 49:01, 51:01, 66:01, 72:01, 81:01, 96:01, 99:01, 117:01, 120:01N, 121:01, 126:01, 128:01, 134:01
<b>23</b>	145 bp, 210 bp	430 bp	*05:01:01-05:01:02, 34:01, 36:01, 38:01, 62:01, 63:01, 97:01, 100:01, 112:01, 114:01, 116:01, 127:01
<b>24</b>	195 bp, 265 bp	<b>515 bp</b>	*05:01:01-05:01:02, 08:01, 16:01, 19:01, 22:01, 31:01, 38:01, 57:01, 63:01, 65:01, 68:01, 84:01, 97:01, 101:01, 102:01, 103:01, 106:01
<b>25</b>	190 bp, 265 bp	<b>515 bp</b>	*05:01:01-05:01:02, 21:01, 22:01, 36:01, 38:01, 44:01, 58:01, 63:01, 70:01, 97:01, 114:01

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

<b>26<sup>3,5</sup></b>	75 bp, 205 bp	<b>515 bp</b>	*06:01, 09:01, 17:01, 29:01, 44:01, 46:01, 64:01N, 86:01, 88:01, 101:01, 123:01, 131:01
<b>27<sup>3</sup></b>	95 bp	430 bp	*06:01, 17:01, 20:01:01-20:01:02, 46:01, 64:01N, 69:01, 80:01, 86:01, 91:01, 98:01, 108:01, 130:01, 131:01
<b>28</b>	200 bp, 260 bp	430 bp	*09:01, 10:01, 13:01, 17:01, 21:01, 26:01:01- 26:01:02, 27:01, 30:01, 35:01:01-35:01:02, 36:01, 37:01, 54:01, 55:01, 58:01, 66:01, 79:01, 85:01, 86:01, 88:01, 93:01, 98:01, 107:01, 109:01, 110:01, 113:01, 117:01, 119:01, 125:01, 129:01, 131:01, 132:01, 133:01
<b>29</b>	220 bp	<b>515 bp</b>	*09:01, 10:01, 17:01, 30:01, 54:01, 55:01, 58:01, 86:01, 113:01, 131:01
<b>30</b>	185 bp	430 bp	*09:01, 14:01, 17:01, 35:01:01, 76:01, 86:01, 91:01, 98:01, 119:01, 131:01
<b>31<sup>3,6</sup></b>	120 bp	430 bp	*01:01:01-01:01:03, 05:01:01-05:01:02, 08:01, 10:01, 11:01:01-11:01:02, 13:01, 16:01, 19:01, 21:01, 22:01, 25:01, 26:01:01-26:01:02, 27:01, 30:01, 31:01, 36:01, 37:01, 38:01, 45:01, 52:01, 54:01, 55:01, 56:01, 58:01, 63:01, 65:01, 67:01, 68:01, 79:01, 84:01, 85:01, 87:01, 89:01, 90:01, 93:01, 97:01, 102:01, 103:01, 106:01, 107:01, 110:01, 114:01, 118:01, 122:01, 125:01, 127:01, 133:01
<b>32<sup>3,6</sup></b>	75 bp, 200 bp	430 bp	*11:01:01-11:01:02, 78:01, 130:01
<b>33</b>	140 bp, 205 bp	430 bp	*13:01, 33:01, 81:01, 107:01, 110:01, 117:01, 123:01, 133:01
<b>34</b>	210 bp	430 bp	*14:01, 45:01, 67:01, 76:01, 91:01, 119:01
<b>35</b>	195 bp	430 bp	*15:01, 74:01
<b>36</b>	260 bp	<b>515 bp</b>	*15:01, 18:01, 28:01, 34:01, 40:01, 53:01, 62:01
<b>37<sup>7</sup></b>	185 bp, 255 bp	430 bp	*04:02:01:01-04:02:01:02, 08:01 <sup>?</sup> , 15:01, 21:01 <sup>?</sup> , 22:01 <sup>?</sup> , 24:01 <sup>?</sup> , 25:01 <sup>?</sup> , 27:01 <sup>?</sup> , 28:01, 29:01 <sup>?</sup> , 31:01 <sup>?</sup> , 32:01 <sup>?</sup> , 34:01 <sup>?</sup> , 35:01:01 <sup>?</sup> , 36:01 <sup>?</sup> , 37:01 <sup>?</sup> , 38:01 <sup>?</sup> , 40:01, 41:01:01 <sup>?</sup> -41:01:02 <sup>?</sup> , 44:01 <sup>?</sup> , 46:01 <sup>?</sup> , 47:01 <sup>?</sup> , 48:01 <sup>?</sup> , 49:01 <sup>?</sup> , 51:01 <sup>?</sup> , 52:01 <sup>?</sup> , 53:01, 54:01 <sup>?</sup> , 56:01 <sup>?</sup> , 57:01 <sup>?</sup> , 58:01 <sup>?</sup> , 59:01, 60:01 <sup>?</sup> , 61:01N <sup>?</sup> , 62:01 <sup>?</sup> , 63:01 <sup>?</sup> , 64:01N <sup>?</sup> , 65:01 <sup>?</sup> , 66:01 <sup>?</sup> , 67:01 <sup>?</sup> , 68:01 <sup>?</sup> , 69:01 <sup>?</sup> , 70:01 <sup>?</sup> , 71:01 <sup>?</sup> , 72:01 <sup>?</sup> , 73:01 <sup>?</sup> , 74:01, 75:01 <sup>?</sup> , 76:01 <sup>?</sup> , 77:01 <sup>?</sup> , 78:01 <sup>?</sup> , 79:01 <sup>?</sup> , 80:01 <sup>?</sup> , 81:01 <sup>?</sup> , 82:01 <sup>?</sup> , 83:01 <sup>?</sup> , 84:01 <sup>?</sup> , 86:01 <sup>?</sup> , 87:01 <sup>?</sup> , 89:01 <sup>?</sup> , 90:01 <sup>?</sup> , 91:01 <sup>?</sup> , 92:01 <sup>?</sup> , 93:01 <sup>?</sup> , 94:01 <sup>?</sup> , 95:01 <sup>?</sup> , 96:01 <sup>?</sup> , 97:01 <sup>?</sup> , 98:01 <sup>?</sup> , 99:01 <sup>?</sup> , 100:01 <sup>?</sup> , 101:01 <sup>?</sup> , 102:01 <sup>?</sup> ,

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

			103:01 <sup>?</sup> , 108:01 <sup>?</sup> , 109:01 <sup>?</sup> , 110:01 <sup>?</sup> , 111:01 <sup>?</sup> , 112:01 <sup>?</sup> , 113:01 <sup>?</sup> , 114:01 <sup>?</sup> , 115:01 <sup>?</sup> , 116:01 <sup>?</sup> , 117:01 <sup>?</sup> , 118:01 <sup>?</sup> , 119:01 <sup>?</sup> , 120:01N <sup>?</sup> , 122:01 <sup>?</sup> , 125:01 <sup>?</sup> , 126:01, 127:01 <sup>?</sup> , 128:01 <sup>?</sup> , 129:01 <sup>?</sup> , 130:01 <sup>?</sup>
<b>38<sup>3</sup></b>	100 bp	<b>515 bp</b>	*23:01, 34:01, 52:01, 55:01, 58:01, 62:01, 63:01, 67:01, 71:01, 87:01, 95:01, 103:01, 112:01, 121:01
<b>39</b>	210 bp	<b>515 bp</b>	*28:01, 31:01, 34:01, 57:01, 59:01, 72:01, 73:01, 95:01, 102:01, 108:01
<b>40<sup>3,4,7</sup></b>	95 bp, 180 bp	430 bp	*06:01 <sup>?</sup> , 08:01 <sup>?</sup> , 10:01 <sup>?</sup> , 11:01:01 <sup>?</sup> -11:01:02 <sup>?</sup> , 16:01 <sup>?</sup> , 17:01 <sup>?</sup> , 18:01 <sup>?</sup> , 20:01:01 <sup>?</sup> -20:01:02 <sup>?</sup> , 21:01 <sup>?</sup> , 22:01 <sup>?</sup> , 23:01 <sup>?</sup> , 24:01 <sup>?</sup> , 25:01 <sup>?</sup> , 26:01:01 <sup>?</sup> - 26:01:02 <sup>?</sup> , 27:01 <sup>?</sup> , 28:01 <sup>?</sup> , 29:01 <sup>?</sup> , 30:01, 31:01 <sup>?</sup> , 32:01 <sup>?</sup> , 33:01 <sup>?</sup> , 34:01 <sup>?</sup> , 35:01:01 <sup>?</sup> -35:01:02 <sup>?</sup> , 36:01 <sup>?</sup> , 37:01 <sup>?</sup> , 38:01 <sup>?</sup> , 39:01 <sup>?</sup> , 40:01 <sup>?</sup> , 41:01:01 <sup>?</sup> - 41:01:02 <sup>?</sup> , 44:01 <sup>?</sup> , 45:01 <sup>?</sup> , 46:01 <sup>?</sup> , 47:01 <sup>?</sup> , 48:01 <sup>?</sup> , 49:01 <sup>?</sup> , 50:01 <sup>?</sup> , 51:01 <sup>?</sup> , 52:01 <sup>?</sup> , 53:01 <sup>?</sup> , 54:01, 55:01 <sup>?</sup> , 56:01 <sup>?</sup> , 57:01 <sup>?</sup> , 58:01 <sup>?</sup> , 59:01 <sup>?</sup> , 60:01 <sup>?</sup> , 61:01N <sup>?</sup> , 62:01 <sup>?</sup> , 63:01 <sup>?</sup> , 64:01N <sup>?</sup> , 65:01 <sup>?</sup> , 66:01 <sup>?</sup> , 67:01 <sup>?</sup> , 68:01 <sup>?</sup> , 69:01 <sup>?</sup> , 70:01 <sup>?</sup> , 71:01 <sup>?</sup> , 72:01 <sup>?</sup> , 73:01 <sup>?</sup> , 74:01 <sup>?</sup> , 75:01 <sup>?</sup> , 76:01 <sup>?</sup> , 77:01 <sup>?</sup> , 78:01 <sup>?</sup> , 79:01 <sup>?</sup> , 80:01 <sup>?</sup> , 81:01 <sup>?</sup> , 82:01 <sup>?</sup> , 83:01 <sup>?</sup> , 84:01 <sup>?</sup> , 85:01 <sup>?</sup> , 86:01 <sup>?</sup> , 87:01 <sup>?</sup> , 88:01 <sup>?</sup> , 89:01 <sup>?</sup> , 90:01 <sup>?</sup> , 91:01 <sup>?</sup> , 92:01 <sup>?</sup> , 93:01 <sup>?</sup> , 94:01 <sup>?</sup> , 95:01 <sup>?</sup> , 96:01 <sup>?</sup> , 97:01 <sup>?</sup> , 98:01 <sup>?</sup> , 99:01 <sup>?</sup> , 100:01 <sup>?</sup> , 101:01 <sup>?</sup> , 102:01 <sup>?</sup> , 103:01 <sup>?</sup> , 107:01, 108:01 <sup>?</sup> , 109:01 <sup>?</sup> , 110:01 <sup>?</sup> , 111:01 <sup>?</sup> , 112:01 <sup>?</sup> , 113:01 <sup>?</sup> , 114:01 <sup>?</sup> , 115:01 <sup>?</sup> , 116:01 <sup>?</sup> , 117:01 <sup>?</sup> , 118:01 <sup>?</sup> , 119:01 <sup>?</sup> , 120:01N <sup>?</sup> , 121:01 <sup>?</sup> , 122:01 <sup>?</sup> , 123:01 <sup>?</sup> , 124:01 <sup>?</sup> , 125:01 <sup>?</sup> , 126:01 <sup>?</sup> , 127:01 <sup>?</sup> , 128:01 <sup>?</sup> , 129:01 <sup>?</sup> , 130:01 <sup>?</sup> , 131:01 <sup>?</sup> , 132:01 <sup>?</sup> , 133:01 <sup>?</sup> , 134:01 <sup>?</sup>
<b>41<sup>3</sup></b>	75 bp, 225 bp, 250 bp	<b>515 bp</b>	*31:01, 34:01, 77:01, 94:01, 134:01
<b>42</b>	140 bp, 185 bp, 245 bp, 285 bp	430 bp	*32:01, 82:01, 97:01, 128:01
<b>43<sup>3,4,7</sup></b>	65 bp, 190 bp	430 bp	*05:01:01-05:01:02, 06:01 <sup>?</sup> , 08:01 <sup>?</sup> , 10:01 <sup>?</sup> , 11:01:01 <sup>?</sup> -11:01:02 <sup>?</sup> , 16:01 <sup>?</sup> , 17:01 <sup>?</sup> , 18:01 <sup>?</sup> , 19:01, 20:01:01 <sup>?</sup> -20:01:02 <sup>?</sup> , 21:01 <sup>?</sup> , 22:01 <sup>?</sup> , 23:01 <sup>?</sup> , 24:01 <sup>?</sup> , 25:01 <sup>?</sup> , 26:01:01 <sup>?</sup> -26:01:02 <sup>?</sup> , 27:01 <sup>?</sup> , 28:01 <sup>?</sup> , 29:01 <sup>?</sup> , 30:01 <sup>?</sup> , 31:01 <sup>?</sup> , 32:01 <sup>?</sup> , 33:01 <sup>?</sup> , 34:01, 35:01:01 <sup>?</sup> -35:01:02 <sup>?</sup> , 36:01 <sup>?</sup> , 37:01 <sup>?</sup> , 38:01 <sup>?</sup> , 39:01 <sup>?</sup> , 40:01 <sup>?</sup> , 41:01:01 <sup>?</sup> -

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

			41:01:02 <sup>?</sup> , 44:01 <sup>?</sup> , 45:01 <sup>?</sup> , 46:01 <sup>?</sup> , 47:01 <sup>?</sup> , 48:01 <sup>?</sup> , 49:01 <sup>?</sup> , 50:01 <sup>?</sup> , 51:01 <sup>?</sup> , 52:01 <sup>?</sup> , 53:01 <sup>?</sup> , 54:01 <sup>?</sup> , 55:01 <sup>?</sup> , 56:01 <sup>?</sup> , 57:01 <sup>?</sup> , 58:01 <sup>?</sup> , 59:01 <sup>?</sup> , 60:01 <sup>?</sup> , 61:01N <sup>?</sup> , 62:01, 63:01 <sup>?</sup> , 64:01N <sup>?</sup> , 65:01 <sup>?</sup> , 66:01 <sup>?</sup> , 67:01 <sup>?</sup> , 68:01 <sup>?</sup> , 69:01 <sup>?</sup> , 70:01 <sup>?</sup> , 71:01 <sup>?</sup> , 72:01 <sup>?</sup> , 73:01 <sup>?</sup> , 74:01 <sup>?</sup> , 75:01 <sup>?</sup> , 76:01 <sup>?</sup> , 77:01 <sup>?</sup> , 78:01 <sup>?</sup> , 79:01 <sup>?</sup> , 80:01 <sup>?</sup> , 81:01 <sup>?</sup> , 82:01 <sup>?</sup> , 83:01 <sup>?</sup> , 84:01 <sup>?</sup> , 85:01 <sup>?</sup> , 86:01 <sup>?</sup> , 87:01 <sup>?</sup> , 88:01 <sup>?</sup> , 89:01 <sup>?</sup> , 90:01 <sup>?</sup> , 91:01 <sup>?</sup> , 92:01 <sup>?</sup> , 93:01 <sup>?</sup> , 94:01 <sup>?</sup> , 95:01 <sup>?</sup> , 96:01 <sup>?</sup> , 97:01 <sup>?</sup> , 98:01 <sup>?</sup> , 99:01 <sup>?</sup> , 100:01 <sup>?</sup> , 101:01 <sup>?</sup> , 102:01 <sup>?</sup> , 103:01 <sup>?</sup> , 104:01, 108:01 <sup>?</sup> , 109:01 <sup>?</sup> , 110:01 <sup>?</sup> , 111:01 <sup>?</sup> , 112:01 <sup>?</sup> , 113:01 <sup>?</sup> , 114:01 <sup>?</sup> , 115:01 <sup>?</sup> , 116:01 <sup>?</sup> , 117:01 <sup>?</sup> , 118:01 <sup>?</sup> , 119:01 <sup>?</sup> , 120:01N <sup>?</sup> , 121:01 <sup>?</sup> , 122:01 <sup>?</sup> , 123:01 <sup>?</sup> , 124:01 <sup>?</sup> , 125:01 <sup>?</sup> , 126:01 <sup>?</sup> , 127:01 <sup>?</sup> , 128:01 <sup>?</sup> , 129:01 <sup>?</sup> , 130:01 <sup>?</sup> , 131:01 <sup>?</sup> , 132:01 <sup>?</sup> , 133:01 <sup>?</sup> , 134:01 <sup>?</sup>
<b>44<sup>3</sup></b>	110 bp, 185 bp, 245 bp, 270 bp	430 bp	*38:01, 64:01N, 111:01, 118:01, 120:01N
<b>45<sup>3</sup></b>	120 bp, 190 bp, 245 bp	430 bp	*39:01, 46:01, 49:01, 80:01, 86:01, 96:01, 108:01, 115:01, 117:01
<b>46<sup>3</sup></b>	70 bp, 205 bp	430 bp	*41:01:01-41:01:02, 60:01, 69:01, 83:01, 96:01
<b>47<sup>4</sup></b>	165 bp, 255 bp	430 bp	*02:01:02-02:02, 04:01:01:01-04:01:02, 08:01 <sup>?</sup> , 17:01, 21:01 <sup>?</sup> , 22:01 <sup>?</sup> , 23:01, 24:01 <sup>?</sup> , 25:01 <sup>?</sup> , 26:01:01 <sup>?</sup> , 27:01 <sup>?</sup> , 28:01, 29:01 <sup>?</sup> , 30:01, 31:01 <sup>?</sup> , 32:01 <sup>?</sup> , 33:01, 34:01 <sup>?</sup> , 35:01:01 <sup>?</sup> , 36:01 <sup>?</sup> , 37:01 <sup>?</sup> , 38:01 <sup>?</sup> , 39:01, 40:01 <sup>?</sup> , 41:01:01 <sup>?</sup> -41:01:02 <sup>?</sup> , 44:01, 46:01 <sup>?</sup> , 47:01 <sup>?</sup> , 48:01 <sup>?</sup> , 49:01 <sup>?</sup> , 51:01 <sup>?</sup> , 52:01 <sup>?</sup> , 53:01 <sup>?</sup> , 54:01 <sup>?</sup> , 55:01, 56:01 <sup>?</sup> , 57:01 <sup>?</sup> , 58:01 <sup>?</sup> , 60:01 <sup>?</sup> , 61:01N <sup>?</sup> , 62:01 <sup>?</sup> , 63:01 <sup>?</sup> , 64:01N <sup>?</sup> , 65:01 <sup>?</sup> , 66:01 <sup>?</sup> , 67:01 <sup>?</sup> , 68:01 <sup>?</sup> , 69:01 <sup>?</sup> , 70:01 <sup>?</sup> , 71:01 <sup>?</sup> , 72:01 <sup>?</sup> , 73:01 <sup>?</sup> , 74:01 <sup>?</sup> , 75:01 <sup>?</sup> , 76:01 <sup>?</sup> , 77:01 <sup>?</sup> , 78:01 <sup>?</sup> , 79:01 <sup>?</sup> , 80:01 <sup>?</sup> , 81:01 <sup>?</sup> , 82:01 <sup>?</sup> , 83:01 <sup>?</sup> , 84:01 <sup>?</sup> , 86:01 <sup>?</sup> , 87:01 <sup>?</sup> , 89:01 <sup>?</sup> , 90:01 <sup>?</sup> , 91:01 <sup>?</sup> , 92:01 <sup>?</sup> , 93:01 <sup>?</sup> , 94:01 <sup>?</sup> , 95:01 <sup>?</sup> , 96:01 <sup>?</sup> , 97:01 <sup>?</sup> , 98:01 <sup>?</sup> , 99:01 <sup>?</sup> , 100:01 <sup>?</sup> , 101:01 <sup>?</sup> , 102:01 <sup>?</sup> , 103:01 <sup>?</sup> , 105:01, 106:01, 108:01 <sup>?</sup> , 109:01 <sup>?</sup> , 110:01 <sup>?</sup> , 111:01 <sup>?</sup> , 112:01 <sup>?</sup> , 113:01 <sup>?</sup> , 114:01, 115:01 <sup>?</sup> , 116:01 <sup>?</sup> , 117:01 <sup>?</sup> , 118:01 <sup>?</sup> , 119:01 <sup>?</sup> , 120:01N <sup>?</sup> , 121:01, 122:01 <sup>?</sup> , 123:01, 124:01, 125:01 <sup>?</sup> , 127:01 <sup>?</sup> , 128:01 <sup>?</sup> , 129:01 <sup>?</sup> , 130:01 <sup>?</sup> , 133:01, 134:01

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

**Lot-specific information**

<b>48<sup>3</sup></b>	115 bp, 210 bp, 280 bp	430 bp	*56:01, 61:01N, 66:01, 76:01, 85:01, 92:01, 110:01, 125:01
-----------------------	------------------------------	--------	---

<sup>1</sup>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 DPB1 SSP typings.

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

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

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

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

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

<sup>2</sup>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 430 base pairs, for most wells, or a band of 515 base pairs, for some wells.

Well number 1 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DPB1 typing.

In addition, wells number 2, 5, 8, 10 to 12, 17, 20, 24 to 26, 29, 36, 38, 39 and 41 contain the primer pair giving rise to the longer, 515 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.

<sup>3</sup>Specific PCR fragments shorter than 125 base pairs are less intense and not as sharp as longer specific bands.

<sup>4</sup>Primer mixes 3, 40, 43 and 47 may yield less specific PCR products than the other DPB1 primer mixes.

<sup>5</sup>Primer mixes 3 and 26 may give rise to primer dimer formation.

<sup>6</sup>Primer mixes 31 and 32 may give rise to non-specific amplifications.

<sup>7</sup>The 1<sup>st</sup>, 3<sup>rd</sup> and 4<sup>th</sup> exon of many DPB1 alleles is not sequenced and thus the primer pairs in primer mixes 37, 40, 43 and 47 may amplify other DPB1 alleles. We assume that unknown sequences in these exons and in the introns are conserved within loci and within allelic groups.

'w', might be weakly amplified.

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

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

### DQ low/DQB1\*03 medium to high resolution primer set

Specificities and sizes of the PCR products of the 24 primer mixes of the DQ low/DQB1\*03 medium to high resolution primer set

Primer Mix	Size of spec. PCR product <sup>1</sup>	Size of control band <sup>2</sup>	DQ serology <sup>3</sup>	Amplified DQB1 alleles <sup>4</sup>
<b>49</b>	225 bp	<b>515 bp</b>	5	*05:01:01:01-05:12
<b>50</b>	220 bp, 270 bp	430 bp	1, 5, 6	*06:01:01-06:44
<b>51</b>	210 bp	430 bp	2	*02:01:01-02:06
<b>52</b>	220 bp	<b>515 bp</b>	3, 7	*03:01:01:01-03:01:06, 03:04, 03:09-03:10, 03:13-03:14, 03:16, 03:19, 03:21-03:22, 03:24, 03:27- 03:29, 03:35-03:36
<b>53<sup>5</sup></b>	130 bp	<b>515 bp</b>	6, 8	*03:02:01-03:02:05, 03:05:01- 03:05:04, 03:07-03:08, 03:11, 03:18, 03:32, 03:37, 06:29
<b>54<sup>7</sup></b>	135 bp	<b>515 bp</b>	2, 3, 9	*02:03, 03:03:02:01-03:03:04, 03:06, 03:12, 03:15, 03:20, 03:25- 03:26, 03:30-03:31, 03:33-03:34, 03:38, 04:03:01-04:03:02
<b>55</b>	145 bp, 185 bp	<b>515 bp</b>	3, 7, 8, 9	*03:01:01:01-03:38
<b>56</b>	210 bp, 245 bp	430 bp	4	*04:01:01-04:08
<b>57</b>	165 bp	<b>515 bp</b>	7	*03:01:01:01-03:01:06, 03:04, 03:09, 03:13, 03:16, 03:19, 03:21- 03:22, 03:24, 03:27-03:29, 03:35- 03:36
<b>58</b>	135 bp	430 bp	3, 7	*03:04, 03:14
<b>59<sup>5</sup></b>	95 bp, 130 bp	430 bp	8, 9	*03:05:01-03:05:04, 03:17, 03:20
<b>60<sup>5</sup></b>	115 bp	430 bp	3	*03:06, 03:25
<b>61<sup>5</sup></b>	110 bp, 145 bp	430 bp	7, 8,9	*03:07, 03:15-03:16
<b>62</b>	135 bp	430 bp	6, 8	*03:08, 06:02:02, 06:03:02
<b>63</b>	135 bp, 260 bp	430 bp	7, 8	*03:09, 03:11, 03:26
<b>64<sup>6</sup></b>	135 bp	430 bp	3, 6, 9	*03:10, 03:12, 03:14, 06:01:01- 06:01:06, 06:43

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

<b>65</b>	260 bp	<b>515 bp</b>	3, 7, 9	*03:01:01:01-03:01:06, 03:04, 03:09-03:10, 03:12-03:14, 03:16, 03:19, 03:21-03:22, 03:24, 03:27-03:29, 03:35-03:36
<b>66</b>	160 bp	430 bp	7	*03:13, 03:21-03:22
<b>67<sup>5</sup></b>	130 bp	<b>515 bp</b>	3, 7	*03:01:01:01-03:01:06, 03:04, 03:09-03:10, 03:13-03:14, 03:19, 03:21-03:22, 03:24, 03:27-03:29, 03:35-03:36
<b>68<sup>5</sup></b>	130 bp	430 bp	2, 3, 7, 9	*02:03, 03:01:01:01-03:01:02, 03:01:04-03:01:06, 03:03:02:01-03:03:04, 03:06, 03:09-03:10, 03:12-03:13, 03:15-03:17, 03:19-03:24, 03:26-03:31, 03:33-03:36, 03:38
<b>69<sup>5,7</sup></b>	130 bp, 220 bp	430 bp	8	*03:18, 03:24
<b>70<sup>8</sup></b>	175 bp	<b>515 bp</b>	3, 4, 7, 8, 9	*03:02:01-03:03:04, 03:05:01-03:05:04, 03:06 <sup>?</sup> -03:08 <sup>?</sup> , 03:11 <sup>?</sup> -03:18 <sup>?</sup> , 03:19, 03:20 <sup>?</sup> , 03:23 <sup>?</sup> , 03:25, 03:26 <sup>?</sup> , 03:30-03:32, 03:33 <sup>?</sup> -03:34 <sup>?</sup> , 03:37 <sup>?</sup> , 03:38, 04:01:01-04:08
<b>71<sup>6,8</sup></b>	175 bp	<b>515 bp</b>	3, 7, 8, 9	*03:01:01:01-03:01:06, 03:04, 03:06 <sup>?</sup> -03:08 <sup>?</sup> , 03:09-03:10, 03:11 <sup>?</sup> -03:18 <sup>?</sup> , 03:20 <sup>?</sup> , 03:21-03:22, 03:23 <sup>?</sup> , 03:24, 03:26 <sup>?</sup> , 03:27-03:29, 03:33 <sup>?</sup> -03:34 <sup>?</sup> , 03:35-03:36, 03:37 <sup>?</sup>
<b>72</b>	160 bp	<b>515 bp</b>	1, 6	*03:23, 06:03:01-06:03:02, 06:04:02, 06:07:01, 06:08:01, 06:11:01-06:11:02, 06:26N, 06:28, 06:30-06:32, 06:40-06:41, 06:44

<sup>1</sup>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 DQ low resolution SSP subtypings. When the primers in a primer mix can give rise to specific PCR products of more than one length this is indicated if the size difference is 20 base pairs or more. Size differences shorter than 20 base pairs are not given. For high resolution SSP kits the respective lengths of the specific PCR product(s) of the alleles amplified by these primer mixes are given.

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

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

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

Some primers may give rise to primer oligomer artifacts. Sometimes this phenomenon is an inherent feature of the primer pair(s) of a primer mix. More often it is due to other factors such as too low

101.709-24/06 – including *Taq* pol., IFU-01  
101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
“Instructions for Use” (IFU)

**Lot No.: 12N****Lot-specific information**

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.

<sup>2</sup>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 430 base pairs, for most wells, or a band of 515 base pairs, for some wells.

Well number 49 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DQ low resolution typing. In addition, wells number 52 to 55, 57, 65, 67 and 70 to 72 contain the primer pair giving rise to the longer, 515 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.

<sup>3</sup>The serological reactivity of all DQB alleles is not known. In this table we use the expert-assigned grouping in Tissue Antigens (2009) 73:95-170 and have also inferred the serological grouping from the naming of the sequence-defined allele.

<sup>4</sup>For several DQB1 alleles only partial second exon nucleotide sequences are available. In these instances it is not known whether some of the primers of the SSP sets are completely matched with the target sequences or not. We assume that unknown sequences in the 5'- and 3'-ends of the second exon of the DQB1 gene are conserved within allelic groups.

<sup>5</sup>Short PCR fragments are less intense and not as sharp as longer specific bands.

<sup>6</sup>Primer mix 64 and 71 may give rise to nonspecific amplifications.

<sup>7</sup>Primer mix 54 and 69 may give rise to primer oligomer formation.

<sup>8</sup>For several DQB1 alleles only partial second exon nucleotide sequences are available. In these instances it is not known whether some of the primers of the SSP sets are completely matched with the target sequences or not. We assume that unknown sequences in the 5'- and 3'-ends of the second exon of the DQB1 gene are conserved within allelic groups.

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



101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information  
**SPECIFICITY TABLE**

**DR low resolution primer set**

Specificities and sizes of the PCR products of the 23+1 primer mixes of the DR low resolution primer set

Primer Mix	Size of spec. PCR product <sup>1</sup>	Size of control band <sup>2</sup>	DR serology <sup>3</sup>	Amplified HLA-DRB <sup>4</sup> alleles
<b>73</b> <sup>6,7</sup>	205 bp, 255 bp	<b>515 bp</b>	1	*01:01:01-01:02:05, 01:04-01:37
<b>74</b>	200 bp	430 bp	103/1	*01:03
<b>75</b>	200 bp, 215 bp	430 bp	2, 15	*15:01:01:01-15:58
<b>76</b>	210 bp	430 bp	16	*16:01:01-16:05:02, 16:07-16:18
<b>77</b> <sup>5, 6,10</sup>	120 bp, 220 bp	430 bp	3, 11, 17, 18	*03:01:01:01-03:65, 11:07, 11:53, 11:103, 11:105, 11:107, 15:25
<b>78</b> <sup>5,6,10</sup>	80 bp, 210 bp	430 bp	3, 6, 11, 13, 14, 17	*03:01:01:01-03:01:14, 03:04:01-03:06, 03:08-03:16, 03:18-03:20, 03:22-03:23, 03:25-03:26, 03:28, 03:30-03:31, 03:33- 03:34, 03:36-03:37, 03:43-03:48, 03:50- 03:52, 03:54-03:65, 08:40, 11:02:01-11:03, 11:11:01-11:11:02, 11:14:01-11:14:02, 11:16, 11:20-11:21, 11:36, 11:40-11:41, 11:48, 11:59, 11:63, 11:65:01-11:65:02, 11:68, 11:70, 11:73, 11:76, 11:79-11:80, 11:83, 11:85-11:87, 11:93, 13:01:01-13:04, 13:08, 13:10, 13:15-13:17, 13:19-13:20, 13:22-13:24, 13:27-13:29, 13:31-13:41, 13:43, 13:45, 13:48, 13:51-13:54, 13:57, 13:59, 13:61:01-13:61:02, 13:63-13:66:02, 13:68-13:76, 13:78-13:81, 13:83-13:85, 13:87-13:99, 13:101-13:102, 13:104- 13:107, 13:109, 13:111-13:117, 14:16, 14:19, 14:21, 14:82, 14:95, 14:109
<b>79</b> <sup>5, 6</sup>	85 bp, 210 bp	430 bp	3, 6, 18, 11, 13, 14, 1403	*03:02:01-03:03, 03:27, 03:29, 03:38, 03:53, 11:13:01 <sup>w</sup> -11:13:02 <sup>w</sup> , 11:26, 11:34, 13:15, 13:19, 13:26, 13:44, 13:53, 13:57, 13:85-13:86, 13:104, 14:02-14:03:02, 14:06:01-14:06:02, 14:09, 14:12:01-14:13, 14:17-14:21, 14:24, 14:27, 14:29-14:30, 14:32:01 <sup>w</sup> -14:32:02 <sup>w</sup> , 14:33, 14:40-14:41, 14:47-14:49, 14:51, 14:63, 14:65 <sup>w</sup> , 14:67, 14:77-14:78, 14:80-14:81, 14:83, 14:85, 14:89, 14:94, 14:98, 14:102, 14:106, 14:108-14:109, 14:115

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

<b>80<sup>5,6</sup></b>	100 bp, 175 bp	430 bp	4, 3/4	*04:01:01-04:102
<b>81</b>	210 bp, 235 bp	430 bp	7, 13, 14	*07:01:01:01-07:01:04, 07:03-07:21, 12:22, 13:17, 13:116, 14:50
<b>82<sup>6</sup></b>	170 bp, 215 bp, 250 bp	<b>515 bp</b>	8, 11, 12, 14	*08:01:01-08:19, 08:21-08:48, 11:67, 12:04, 12:16, 12:22, 14:11, 14:15, 14:68, 14:93
<b>83<sup>5,6</sup></b>	90 bp, 135 bp, 180 bp	430 bp	3, 9, 11	*03:08, 03:65, 09:01:02-09:16, 11:07, 11:53, 11:103, 11:105, 11:107
<b>84<sup>7</sup></b>	205 bp	430 bp	10	*10:01:01-10:03
<b>85<sup>5,6</sup></b>	100 bp, 170 bp	430 bp	3, 8, 11, 14	*03:08, 03:65, 08:31, 08:41, 11:01:01- 11:70, 11:72-11:113
<b>86<sup>5,6</sup></b>	85 bp, 105 bp	430 bp	12	*08:32, 12:01:01-12:34
<b>87</b>	215 bp	430 bp	6, 8, 11, 13, 14, 1403	*08:20-08:21, 11:01:01-11:04:08, 11:06:01- 11:06:02, 11:08:01-11:12:02, 11:14:01- 11:16, 11:18-11:21, 11:23-11:25, 11:27:01- 11:33, 11:35-11:51, 11:54:01-11:54:02, 11:56-11:66, 11:68, 11:70, 11:72-11:81, 11:83-11:88, 11:90-11:97, 11:99- 11:102:01, 11:106, 11:108-11:113, 13:01:01-13:08, 13:10-13:16, 13:18-13:43, 13:45-13:85, 13:87-13:115, 13:117-13:119, 14:03:01-14:03:02, 14:12:01-14:12:02, 14:16, 14:19, 14:21-14:22, 14:25, 14:27, 14:40, 14:53, 14:63, 14:67, 14:69, 14:74, 14:77-14:78, 14:84-14:85, 14:98, 14:102, 14:105, 14:109, 14:115-14:116, <b>DRB3*02:27</b>
<b>88<sup>6</sup></b>	195 bp, 210 bp	430 bp	6, 8, 11, 12, 13, 14	*08:01:01-08:02:04, 08:04:01-08:09, 08:11, 08:16-08:17, 08:20-08:22, 08:24, 08:26, 08:28, 08:31, 08:39, 08:41-08:44, 11:01:01-11:06:02, 11:09-11:12:02, 11:14:01-11:16, 11:20-11:21, 11:23-11:25, 11:27:01-11:30, 11:32-11:33, 11:35-11:41, 11:43-11:44, 11:46:01-11:51, 11:54:01- 11:56, 11:58:01-11:63, 11:65:01-11:70, 11:72, 11:74:01-11:78, 11:80-11:88, 11:90- 11:97, 11:99-11:102:01, 11:106, 11:108- 11:113, 12:02:01-12:02:05, 12:13, 12:15- 12:16, 12:18-12:21, 12:23, 12:26-12:27, 12:31N-12:33, 13:01:01-13:02:01, 13:02:03-13:02:05, 13:04-13:05:02, 13:07:01-13:09, 13:11:01-13:11:02, 13:14:01-13:24, 13:26-13:29, 13:31-13:32,

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

				13:34-13:36, 13:38-13:43, 13:45-13:55, 13:57, 13:59, 13:61:01-13:65, 13:67-13:76, 13:78-13:80, 13:83-13:84, 13:87, 13:91-13:93, 13:96:01-13:100, 13:102-13:109, 13:111-13:114, 13:116-13:117, 14:15-14:16, 14:22, 14:24-14:25, 14:27, 14:37, 14:53, 14:73, 14:105
<b>89<sup>10</sup></b>	175 bp 430 bp	3, 6, 11, 13, 14, 1403, 17, 18		*03:01:01:01-03:07, 03:09, 03:11:01-03:41, 03:43-03:45, 03:47-03:63, 08:20, 13:01:01-13:16, 13:18-13:42, 13:44, 13:46-13:66:02, 13:68-13:102, 13:104-13:115, 13:117-13:119, 14:02-14:03:02, 14:05:01-14:06:02, 14:09, 14:12:01-14:14, 14:17-14:21, 14:23:01, 14:23:03-14:24, 14:27, 14:29-14:30, 14:33, 14:36-14:37, 14:40-14:45, 14:47-14:48, 14:51, 14:56, 14:59, 14:63-14:65, 14:67, 14:77-14:78, 14:80-14:81, 14:83-14:85, 14:89, 14:91, 14:94-14:96, 14:98, 14:100, 14:102-14:103, 14:106, 14:108-14:109, 14:115-14:116
<b>90<sup>5,9</sup></b>	100 bp, 140 bp, 155 bp	430 bp	4, 6, 8,13, 14, 1404	*04:62, 04:69, 04:73, 08:08, 11:69, 11:82, 13:45, 14:01:01-14:01:02, 14:04, 14:07:01-14:07:02, 14:10, 14:16, 14:22, 14:25-14:26, 14:28, 14:31-14:32:02, 14:35, 14:37-14:39, 14:49-14:50, 14:53-14:55, 14:57-14:58, 14:60-14:62, 14:68-14:71, 14:73-14:76, 14:79, 14:82, 14:86-14:88, 14:90, 14:93, 14:99, 14:101, 14:104-14:105, 14:107, 14:110-14:114, 14:117, <b>DRB4*01:03:01:02N</b>
<b>91<sup>5,6,8</sup></b>	110 bp, 135 bp, 170 bp	430 bp	3, 6, 9, 11, 13, 14, 1404	*03:10, 09:01:02-09:01:05, 09:01:07-09:02:02, 09:04-09:16, 11:13:01-11:13:02, 11:17, 11:52, 13:43, 14:01:01-14:02, 14:04-14:11, 14:13-14:14, 14:16-14:18, 14:19 <sup>w</sup> , 14:20, 14:21 <sup>w</sup> , 14:22-14:23:03, 14:26, 14:28-14:36, 14:38-14:39, 14:41, 14:43-14:52, 14:54-14:57, 14:59-14:62, 14:64-14:65, 14:68, 14:70-14:76, 14:79-14:83, 14:86-14:88, 14:90-14:97, 14:99-14:101, 14:103-14:108, 14:109 <sup>w</sup> , 14:110-14:114, 14:117, 15:27, 15:34
<b>92<sup>5,6,7</sup></b>	110 bp, 175 bp, 225 bp	430 bp	2, 3, 6, 8, 11, 13, 14,1403, 1404,16	*03:10, 08:09, 08:20-08:21, 08:32, 08:35, 11:13:01-11:13:02, 11:17, 11:23, 11:25, 11:31, 11:45, 11:52, 11:55, 11:64, 11:89, 11:96, 13:13, 13:18, 13:43, 13:45, 13:47, 13:55, 13:119, 14:01:01-14:01:03,

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

				14:03:01-14:05:03, 14:07:01-14:08, 14:10-14:12:02, 14:14-14:16, 14:18, 14:22-14:23:03, 14:25-14:28, 14:31-14:32:02, 14:34-14:36, 14:38-14:40, 14:42-14:45, 14:49-14:50, 14:53-14:65, 14:67-14:79, 14:81-14:82, 14:84-14:93, 14:95-14:97, 14:99-14:105, 14:107, 14:110-14:117, 15:21 <sup>w</sup> , 16:04 <sup>w</sup> , 16:18 <sup>w</sup>
<b>93</b> <sup>6,10</sup>	160 bp, 240 bp	430 bp	52	<b>DRB3*01:01:02:01-01:15, DRB3*02:01-02:28, DRB3*03:01:01-03:03</b>
<b>94</b> <sup>7</sup>	215 bp	430 bp	53	<b>DRB4*01:01:01:01-01:08</b>
<b>95</b>	175 bp	430 bp	51	<b>DRB5*01:01:01-01:14, DRB5*02:02-02:05</b>
<b>96</b> <sup>11</sup>	-	-		Negative Control

<sup>1</sup>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 DR low resolution SSP subtypings.

When the primers in a primer mix can give rise to specific PCR products of more than one length this is indicated if the size difference is 20 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, e.g. the primers in wells 75, 80, 90, 91 and 92.

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

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

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

<sup>2</sup>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 430 base pairs, for most wells, or a band of 515 base pairs, for some wells.

Well number 73 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DR low resolution typing.

In addition, well number 82 contains the primer pair giving rise to the longer, 515 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.

<sup>3</sup>The serological reactivity of all DRB alleles is not known. In this table we use the expert-assigned serological grouping in Tissue Antigens (2009) 73:95-170, and have also inferred the serological grouping from the naming of the sequence-defined allele.

<sup>4</sup>For several DRB alleles only partial second exon nucleotide sequences are available. In these instances it is not known whether some of the primers of the SSP set are completely matched with the target sequences or not. We assume that unknown sequences in the first hyperpolymorphic region of the second exon of DRB alleles are conserved within allelic groups and that unknown sequences of codons 87 to 92 are identical with the DRB1\*0101 consensus sequence.

The DRB1\*08:09 and DRB1\*14:15 alleles yield identical amplification patterns in the DPB1-DQ-DR kit. These alleles can be separated by the respective high resolution primer sets.

The DRB1\*08:20 and the DRB1\*13:18, 13:47 and 13:55 alleles yield identical amplification patterns in the DPB1-DQ-DR kit. These alleles can be separated by the respective high resolution primer sets.

101.709-24/06 – including *Taq* pol., IFU-01  
101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
“Instructions for Use” (IFU)

**Lot No.: 12N****Lot-specific information**

The DRB1\*08:31 and 08:41 and the DRB1\*11:67 alleles yield identical amplification patterns in the DPB1-DQ-DR kit. These alleles can be separated by the respective high resolution primer sets.

The DRB1\*13:13 and 13:119 and the DRB1\*14:84 and 14:116 alleles yield identical amplification patterns in the DPB1-DQ-DR kit. These alleles can be separated by the respective high resolution primer sets.

<sup>5</sup>Specific PCR fragments shorter than 125 base pairs have a lower intensity and are less sharp than longer PCR bands.

<sup>6</sup>Individual alleles can give rise to two differently sized specific PCR fragments in primer mixes 73, 77 to 80, 82 to 83, 85, 86, 88 and 91 to 93.

<sup>7</sup>Primer mix 73, 84, 92 and 94 may give rise to primer oligomer formation.

<sup>8</sup>Primer mix 91 has a tendency of primer oligomer formation and also has an intense primer cloud due to the high number of primers present in the primer mix.

<sup>9</sup>The DRB4\*01:03:01:02N allele is amplified by the primer pair in well No. 90, whereas the DRB4\*02:01N and DRB4\*03:01N null alleles are not amplified by this primer pair.

<sup>10</sup>Due to sharing of sequence motifs in codon 38, DRB3\*01:14 will also be amplified in primer mixes 77, 78 and 89 in addition to primer mix 93.

<sup>11</sup>Primer mix 96 contains a negative control, which will amplify more than 95% of HLA amplicons as well as the amplicons generated by control primer pairs. PCR product sizes range from 75 to 200 base pairs. The PCR product generated by the control primer pair is 430 base pairs.

'w', might be weakly amplified.

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

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: 12N

Lot-specific information

INTERPRETATION TABLE																								
DPB1 SSP typing																								
Amplification patterns of the DPB1*01:01 to DPB1*134:01 alleles																								
	Well																							
	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. PCR product(s)	245	220	100	140	235	165	160	210	165	220	185	80	180	105	200	80	260	180	200	235	100	185	145	195
Length of int. pos. control <sup>1</sup>	515	515	430	430	515	430	430	515	430	515	515	515	430	430	430	430	515	430	430	515	430	430	430	515
5'-primer(s) <sup>2</sup>	5'-TgT <sup>3'</sup> 9(112)	5'-TgT <sup>3'</sup> 9(112)	5'-CgC <sup>3'</sup> 36(194)	5'-CgC <sup>3'</sup> 36(194)	5'-ggg <sup>3'</sup> 11(119)	5'-gTA <sup>3'</sup> 35(191)	5'-CgC <sup>3'</sup> 36(194)	5'-TTT <sup>3'</sup> 9(113)	5'-AgC <sup>3'</sup> 35(190)	5'-TTT <sup>3'</sup> 9(113)	5'-gTT <sup>3'</sup> 35(191)	5'-gAT <sup>3'</sup> 55(252)	5'-TTT <sup>3'</sup> 9(113)	5'-gTT <sup>3'</sup> 11(119)	5'-gAg <sup>3'</sup> 28(169)	5'-gAT <sup>3'</sup> 12(121)	5'-gTT <sup>3'</sup> 11(119)	5'-gTT <sup>3'</sup> 11(119)	5'-gTT <sup>3'</sup> 11(119)	5'-gTT <sup>3'</sup> 11(119)	5'-gAC <sup>3'</sup> 57(258)	5'-CgC <sup>3'</sup> 36(194)	5'-gAT <sup>3'</sup> 12(121)	5'-TTT <sup>3'</sup> 9(113)
3'-primer(s) <sup>3</sup>	5'-CAT <sup>3'</sup> 76(315)	5'-CTT <sup>3'</sup> 69(292)	5'-Cag <sup>3'</sup> 55(251)	5'-CTT <sup>3'</sup> 69(292)	5'-CAT <sup>3'</sup> 76(315)	5'-CAT <sup>3'</sup> 76(315)	5'-CAT <sup>3'</sup> 76(315)	5'-gAT <sup>3'</sup> 65(280)	5'-TAT <sup>3'</sup> 76(313)	5'-CTC <sup>3'</sup> 69(292)	5'-gTT <sup>3'</sup> 84(337)	5'-CTC <sup>3'</sup> 69(292)	5'-gCC <sup>3'</sup> 55(252)	5'-gCC <sup>3'</sup> 55(252)	5'-CgC <sup>3'</sup> 84(338)	5'-CTT <sup>3'</sup> 69(292)	5'-CgT <sup>3'</sup> 84(338)	5'-TAG <sup>3'</sup> 57(258)	5'-gAg <sup>3'</sup> 65(280)	5'-CAT <sup>3'</sup> 76(315)	5'-CAT <sup>3'</sup> 76(315)	5'-CgC <sup>3'</sup> 84(338)	5'-CTT <sup>3'</sup> 69(292)	5'-gTg <sup>3'</sup> 60(265)
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





101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

Length of spec. PCR product(s)	245	220	100	140	235	165	160	210	165	220	185	80	180	105	200	80	260	180	200	235	100	185	145	195
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
DPB1 allele <sup>4</sup>																								
*01:01:01-01:01:03	1	2	3	4	5	6	7																	
*02:01:02, 02:01:04- 02:01:05, 02:01:07								8	9	10	11	12												
*02:01:03								8	9	10	11	w												
*02:01:06								8	w	10	11	12												
*02:02								8	9	10			13	14	15									
*03:01:01-03:01:02	1	2														16	17	18	19	20	21			
*04:01:01:01- 04:01:03			3	4				8			11											22		
*04:02:01:01- 04:02:01:02								8	9		11					16								
*05:01:01-05:01:02								8	9				13	14									23	24
*06:01									9			12					17	18	19					
*08:01					5			8		10		12												24
*09:01												12					17	18		20	21			
*10:01												12					17			20				
*11:01:01-11:01:02			3														17		19					
*13:01	1		3			6	7										17			20				
*14:01																16	17	18	19	20	21			
*15:01			3																					
*16:01								8	9	10		12												24
*17:01									9			12					17	18						
*18:01		2							9							16								
*19:01					5			8	9	10			13											24
*20:01:01-20:01:02		2							9							16	17	18	19					
*21:01									9					14			17							
*22:01								8	9	10			13	14										24
*23:01								8	9		11													
*24:01				4				8			11		13									22		
*25:01	1	2														16	17		19	20				
*26:01:01	1	2	3	4		6	7										17			20				
*26:01:02	1	2	3	4		6	7										17			20				
*27:01		2	3	4													17							
*28:01				4												16								
*29:01	1											12					17	18	19	20	21			
*30:01									9					14			17							
*31:01			3																					24
*32:01								8	9	10	11	12												
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



101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

Lot-specific information																Length of spec.									
190	75	95	200	220	185	120	75	140	210	195	260	185	100	210	95	75	140	65	110	120	70	165	115	PCR product(s)	
265	205		260				200	205				255			180		225	185	190	185	190	205	255		210
																	250	245		245	245				280
																	285		270						
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Well No.	
																								DPB1 allele <sup>4</sup>	
						31																		*01:01:01-01:01:03	
																						47		*02:01:02, 02:01:04	
																								02:01:05, 02:01:07	
																								*02:01:03	
																								*02:01:06	
																								*02:02	
																								*03:01:01-03:01:02	
																								*04:01:01:01-	
																								04:01:02	
												37												*04:02:01:01-	
																								04:02:01:02	
25						31												43						*05:01:01-05:01:02	
	26	27													?			?						*06:01	
						31						?			?			?				?		*08:01	
	26		28	29	30																			*09:01	
			28	29		31									?			?						*10:01	
						31	32								?			?						*11:01:01-11:01:02	
			28			31		33																*13:01	
					30			34																*14:01	
									35	36	37													*15:01	
						31									?			?						*16:01	
	26	27	28	29	30										?			?				47		*17:01	
										36					?			?						*18:01	
						31												43						*19:01	
		27													?			?						*20:01:01-20:01:02	
25			28			31						?		?			?					?		*21:01	
25						31						?		?			?					?		*22:01	
												38		?				?				47		*23:01	
												?		?				?				?		*24:01	
						31						?		?				?				?		*25:01	
			28			31								?				?				?		*26:01:01	
			28			31								?				?						*26:01:02	
			28			31						?		?				?				?		*27:01	
										36	37		39	?				?				47		*28:01	
	26										?		?					?				?		*29:01	
			28	29		31								40				?				47		*30:01	
						31						?	39	?	41			?				?		*31:01	
												?	?			42		?				?		*32:01	
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Well No.	

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

Length of spec.	245	220	100	140	235	165	160	210	165	220	185	80	180	105	200	80	260	180	200	235	100	185	145	195
PCR product(s)														175		165							210	265
																210								
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
*33:01			3					8		10	11											22		
*34:01									9														23	
*35:01:01															16		17	18		20	21			
*35:01:02															16		17	18		20	21			
*36:01		2							9				14				17						23	
*37:01	1										12						17		20					
*38:01								8	9				13	14									23	24
*39:01			3	4				8														22		
*40:01			3	4				8																
*41:01:01-41:01:02									9	10	11	12												
*44:01	1										12						17	18	19	20	21			
*45:01															16		17		19	20				
*46:01								8	9	10	11	12												
*47:01								8	9	10	11		13											
*48:01								8	9	10		12			15									
*49:01				4				8								16						22		
*50:01	1	2			5										16						21			
*51:01				4				8			11				16							22		
*52:01	1	2															17		19	20				
*53:01				4				8							16									
*54:01													14				17		20					
*55:01									9								17							
*56:01	1	2	3	4			7										17		19	20				
*57:01					5										16						21			24
*58:01									9								17							
*59:01									9		11				16									
*60:01								8	9		11				16									
*61:01N	1	2													16	17	18	19	20	21				
*62:01								8	9														23	
*63:01								8	9														23	24
*64:01N									9			12					17	18	19					
*65:01			3	4	5	6	7	8																24
*66:01			3	4							11											22		
*67:01																	17		19	20				
*68:01					5			8							16									24
*69:01									9								17	18	19					
*70:01															16	17	18	19	20	21				
*71:01								8	9	10	11													
*72:01			3	4							11											22		
*73:01					5						11				16									
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





101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

Length of spec. PCR product(s)	245	220	100	140	235	165	160	210	165	220	185	80	180	105	200	80	260	180	200	235	100	185	145	195
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
			3											175	165								210	265
															210									
*74:01			3																19					
*75:01					5			8			11					16								
*76:01				4			7									16	17	18	19	20	21			
*77:01								8	9		11					16								
*78:01	1	2														16	17	18	19	20	21			
*79:01	1	2														16	17			20				
*80:01								8	9		11					16								
*81:01								8		10	11	12										22		
*82:01								8	9		11					16								
*83:01									9		11					16								
*84:01					5			8																24
*85:01		2	3	4													17							
*86:01									9		11	12						18						
*87:01		2							9								17	19						
*88:01	1										12						17	18		20	21			
*89:01		2	3	4																				
*90:01	1	2	3	4	5		7																	
*91:01									9							16	17	18	19					
*92:01	1	2		4			7									16	17	18	19	20	21			
*93:01									9		12						17							
*94:01								8	9		11													
*95:01									9	10					15									
*96:01			3	4				8														22		
*97:01								8	9				13	14									23	24
*98:01									9							16	17	18						
*99:01			3	4				8			11				15	16						22		
*100:01								8	9				13	14	15								23	
*101:01								8	9	10			13	14	15									24
*102:01			3	4																				24
*103:01								8	9	10														24
*104:01	1	2														16	17	18	19	20	21			
*105:01								8	9		11					16								
*106:01					5			8	9	10			13											24
*107:01	1		3			6	7										17			20				
*108:01									9		11					16								
*109:01									9		11	12												
*110:01	1		3				7										17			20				
*111:01	1	2														16	17	18	19	20	21			
*112:01								8	9						15								23	
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

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

190 75 95 200				220 185 120 75				140 210 195 260				185 100 210 95				75 140 65 110				120 70 165 115				Length of spec. PCR product(s)	
265 205 260				200 205				255 180				225 185 190 185				190 205 255 210									
												250 245 245 245				280									
25 26 27 28				29 30 31 32				33 34 35 36				37 38 39 40				41 42 43 44				45 46 47 48				Well No.	
										35		37			?				?				?		*74:01
															?				?				?	*75:01	
						30				34					?				?				48	*76:01	
															?	41			?				?	*77:01	
							32								?				?				?	*78:01	
			28				31								?				?				?	*79:01	
			27												?				?			45	?	*80:01	
								33							?				?				?	*81:01	
															?	42			?				?	*82:01	
															?				?		46		?	*83:01	
							31								?				?				?	*84:01	
			28				31								?				?				48	*85:01	
		26	27	28	29	30									?				?			45	?	*86:01	
							31								?	38			?				?	*87:01	
		26		28											?				?				?	*88:01	
							31								?				?				?	*89:01	
							31								?				?				?	*90:01	
			27			30				34					?				?				?	*91:01	
															?				?				48	*92:01	
			28			31									?				?				?	*93:01	
															?				?				?	*94:01	
															?	38	39		?				?	*95:01	
															?				?			45	46	?	*96:01
25							31								?				?			42		?	*97:01
			27	28		30									?				?				?	?	*98:01
															?				?				?	?	*99:01
															?				?				?	?	*100:01
		26													?				?				?	?	*101:01
							31								?		39	?	?				?	?	*102:01
							31								?	38		?	?				?	?	*103:01
																			?			43		?	*104:01
																			?				47	?	*105:01
							31												?				47	?	*106:01
			28			31		33							?				?				45	?	*107:01
			27												?	39	?	?				?	?	*108:01	
			28												?		?	?				?	?	*109:01	
			28			31		33							?		?	?				?	48	*110:01	
															?		?	?			44	?	?	*111:01	
															?	38	?	?				?	?	*112:01	
25 26 27 28				29 30 31 32				33 34 35 36				37 38 39 40				41 42 43 44				45 46 47 48				Well No.	

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

Length of spec. PCR product(s)	245	220	100	140	235	165	160	210	165	220	185	80	180	105	200	80	260	180	200	235	100	185	145	195
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
													175		165								210	265
															210									
*113:01									9		11	12												
*114:01	1	2											14				17		19	20			23	
*115:01								8	9	10	11	12												
*116:01								8	9						15	16							23	
*117:01			3																				22	
*118:01	1	2	3	4	5	6	7																	
*119:01											11				16		17	18	19	20	21			
*120:01N			3	4				8			11											22		
*121:01			3	4				8			11											22		
*122:01	1	2		4	5	6	7								16									
*123:01								8	9	10	11	12												
*124:01	1	2													16		17	18	19	20	21			
*125:01			3	4			7										17		20					
*126:01			3	4				8			11											22		
*127:01	1	2	3	4	5	6	7								16								23	
*128:01			3	4				8			11											22		
*129:01									9		11				16									
*130:01		2							9						16		17	18	19					
*131:01									9		12						17	18						
*132:01	1	2													16		17	18		20	21			
*133:01	1		3			6	7										17		20					
*134:01			3	4				8			11											22		
DPB1 allele <sup>4</sup>																								
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

<sup>1</sup>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 430 base pairs, for most wells, or a band of 515 base pairs, for some wells.

Well number 1 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DPB1 typing.

In addition, wells number 2, 5, 8, 10 to 12, 17, 20, 24 to 26, 29, 36, 38, 39 and 41 contain the primer pair giving rise to the longer, 515 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.

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

190 75 95 200				220 185 120 75				140 210 195 260				185 100 210 95				75 140 65 110				120 70 165 115				Length of spec. PCR product(s)
265 205 260				200				205				255 180				225 185 190 185				190 205 255 210				
												250 245 245				245 280								
																285 270								
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Well No.
			28	29								?			?			?				?		*113:01
25						31						?			?			?				47		*114:01
												?			?			?		45		?		*115:01
												?			?			?				?		*116:01
			28					33				?			?			?		45		?		*117:01
						31						?			?			?	44			?		*118:01
			28		30				34			?			?			?				?		*119:01
												?			?			?	44			?		*120:01N
													38		?			?				47		*121:01
						31						?			?			?				?		*122:01
26								33							?			?				47		*123:01
															?			?				47		*124:01
			28			31						?			?			?				?	48	*125:01
												37			?			?						*126:01
						31						?			?			?				?		*127:01
												?			?	42	?					?		*128:01
			28									?			?			?				?		*129:01
		27					32					?			?			?				?		*130:01
26	27	28		29	30							?			?			?						*131:01
			28									?			?			?						*132:01
			28			31		33							?			?				47		*133:01
												?			?	41	?					47		*134:01
																						DPB1 allele <sup>4</sup>		
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Well No.

<sup>2</sup>The codon, and in parenthesis the nucleotide, in the 2<sup>nd</sup>, 3<sup>rd</sup> or 4<sup>th</sup> exon, matching the specificity-determining 3'-end of the primer is given. Codon and nucleotide numbering as on the on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

<sup>3</sup>The codon, and in parenthesis the nucleotide, in the 2<sup>nd</sup>, 3<sup>rd</sup> or 4<sup>th</sup> exon, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Codon and nucleotide numbering as on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

<sup>4</sup>The sequence of the DPB1\*02011 allele has been shown to be identical to DPB1\*02:01:02.  
 DPB1\*0701 has never been assigned.  
 DPB1\*1201 has never been assigned.  
 The sequence of the DPB1\*4201 allele has been shown to be identical to DPB1\*31:01.  
 The sequence of the DPB1\*4301 allele has been shown to be identical to DPB1\*28:01.

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

<b>INTERPRETATION TABLE</b>												
<b>DQ low/DQB1*03 medium to high resolution SSP typing</b>												
<b>Amplification patterns of the DQB1*02:01 to DQB1*06:44 alleles</b>												
	<b>Well</b>											
	49	50	51	52	53	54	55	56	57	58	59	60
Length of spec.	225	220	210	220	130	135	145	210	165	135	95	115
PCR product(s)		270					185	245			130	
Length of int.												
pos. control <sup>1</sup>	515	430	430	515	515	515	515	430	515	430	430	430
5'-primer(s) <sup>2</sup>	5'-ggg <sup>3'</sup> 26(173)	5'-gTT <sup>3'</sup> 9(122)	5'-AAG <sup>3'</sup> 30(185)	5'-TTA <sup>3'</sup> 26(173)	5'-gAC <sup>3'</sup> 28(179)	5'-TCT <sup>3'</sup> 26(173)	5'-gCA <sup>3'</sup> 38(210)	5'-gTT <sup>3'</sup> 9(122)	5'-ggA <sup>3'</sup> 45(230)	5'-TTA <sup>3'</sup> 26(173)	5'-ggg <sup>3'</sup> 26(173)	5'-gCA <sup>3'</sup> 38(210)
		5'-TTA <sup>3'</sup> 26(173)			5'-gAC <sup>3'</sup> 28(179)		5'-CgC <sup>3'</sup> 48(240)	5'-ACC <sup>3'</sup> 21(159)			5'-ACA <sup>3'</sup> 38(208)	
		5'-TCT <sup>3'</sup> 26(173)					5'-gCC <sup>3'</sup> 55(260)					
							5'-gCA <sup>3'</sup> 55(260)					
3'-primer(s) <sup>3</sup>	5'-ggT <sup>3'</sup> 87(356)	5'-ACg <sup>3'</sup> 86(353)	5'-gCT <sup>3'</sup> 86(353)	5'-gCT <sup>3'</sup> 86(353)	5'-Cgg <sup>3'</sup> 57(266)	5'-CgT <sup>3'</sup> 57(266)	5'-gCT <sup>3'</sup> 86(353)	5'-ACg <sup>3'</sup> 77(327)	5'-gCT <sup>3'</sup> 86(353)	5'-Cgg <sup>3'</sup> 57(266)	5'-gCg <sup>3'</sup> 55(260)	5'-CTA <sup>3'</sup> 62(282)
		5'-ACC <sup>3'</sup> 86(353)										
Well No.	49	50	51	52	53	54	55	56	57	58	59	60







101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

Length of spec.		225	220	210	220	130	135	145	210	165	135	95	115
PCR product(s)			270					185	245			130	
Well No.		49	50	51	52	53	54	55	56	57	58	59	60
DQB1 allele <sup>4</sup>	ser. <sup>5</sup>												
*02:01:01-02:02, 02:04-02:06	DQ2, –			51									
*02:03	DQ2			51			54						
*03:01:01:01- 03:01:02, 03:01:04- 03:01:06, 03:27- 03:29, 03:35- 03:36	DQ7, –				52			55		57			
*03:01:03	DQ7				52			55		57			
*03:02:01- 03:02:05, 03:32	DQ8, –					53		55					
*03:03:02:01- 03:03:04, 03:30- 03:31, 03:38	DQ9, –						54	55					
*03:04	DQ7				52			55		57	58		
*03:05:01- 03:05:04	DQ8					53		55				59	
*03:06	DQ3						54	55					60
*03:07	DQ8					53		55					
*03:08	DQ8					53		55					
*03:09	DQ7				52			55		57			
*03:10	DQ3				52			55					
*03:11	DQ8					53		55					
*03:12	DQ9						54	55					
*03:13	DQ7				52			55		57			
*03:14	DQ3				52			55			58		
*03:15	DQ9						54	55					
*03:16	DQ7				52			55		57			
*03:17	DQ9							55				59	
*03:18	DQ8					53		55					
*03:19	DQ7				52			55		57			
*03:20	DQ9						54	55				59	
*03:21-03:22	–				52			55		57			
*03:23	–							55					
*03:24	–				52			55		57			
*03:25	–						54	55					60
*03:26	–						54	55					
*03:33-03:34	–						54	55					
*03:37	–					53		55					
Well No.		49	50	51	52	53	54	55	56	57	58	59	60

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

110	135	135	135	260	160	130	130	130	175	175	160		Length of spec.
145		260						220					PCR product(s)
61	62	63	64	65	66	67	68	69	70	71	72		Well No.
												ser. <sup>5</sup>	DQB1 allele <sup>4</sup>
												DQ2, –	*02:01:01-02:02, 02:04-02:06
							68					DQ2	*02:03
				65		67	68			71		DQ7, –	*03:01:01-01- 03:01:02, 03:01:04- 03:01:06, 03:27- 03:29, 03:35- 03:36
				65		67				71		DQ7	*03:01:03
									70			DQ8, –	*03:02:01- 03:02:05, 03:32
							68		70			DQ9, –	*03:03:02:01- 03:03:04, 03:30- 03:31, 03:38
				65		67				71		DQ7	*03:04
							68		70			DQ8	*03:05:01- 03:05:04
							68		?	?		DQ3	*03:06
61									?	?		DQ8	*03:07
	62								?	?		DQ8	*03:08
		63		65		67	68			71		DQ7	*03:09
			64	65		67	68			71		DQ3	*03:10
		63							?	?		DQ8	*03:11
			64	65			68		?	?		DQ9	*03:12
				65	66	67	68		?	?		DQ7	*03:13
			64	65		67			?	?		DQ3	*03:14
61							68		?	?		DQ9	*03:15
61				65			68		?	?		DQ7	*03:16
							68		?	?		DQ9	*03:17
								69	?	?		DQ8	*03:18
				65		67	68		70			DQ7	*03:19
							68		?	?		DQ9	*03:20
				65	66	67	68			71		–	*03:21-03:22
							68		?	?	72	–	*03:23
				65		67	68	69		71		–	*03:24
									70			–	*03:25
		63					68		?	?		–	*03:26
							68		?	?		–	*03:33-03:34
									?	?		–	*03:37
61	62	63	64	65	66	67	68	69	70	71	72		Well No.

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

Length of spec.		225	220	210	220	130	135	145	210	165	135	95	115
PCR product(s)			270					185	245			130	
Well No.		49	50	51	52	53	54	55	56	57	58	59	60
*04:01:01- 04:02:02, 04:04- 04:08	DQ4, –								56				
*04:03:01- 04:03:02	–						54		56				
*05:01:01:01- 05:12	DQ5, –	49											
*06:01:01- 06:01:06, 06:43	DQ6, –		50										
*06:02:01, 06:04:01, 06:04:03-06:06, 06:07:02, 06:08:02-06:10, 06:12-06:25, 06:27, 06:33- 06:39, 06:42	DQ1, DQ5, DQ6, –		50										
*06:02:02	DQ6		50										
*06:03:01, 06:04:02, 06:07:01, 06:08:01, 06:11:01- 06:11:02, 06:26N, 06:28, 06:30- 06:32, 06:40- 06:41, 06:44	DQ1, DQ6, Null, –		50										
*06:03:02	DQ6		50										
*06:29	DQ6		50			53							
DQB1 allele <sup>4</sup>	ser. <sup>5</sup>												
Well No.		49	50	51	52	53	54	55	56	57	58	59	60

<sup>1</sup>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 430 base pairs, for most wells, or a band of 515 base pairs, for some wells.

Well number 49 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DQ low resolution typing.

In addition, wells number 52 to 55, 57, 65, 67 and 70 to 72 contain the primer pair giving rise to the longer, 515 bp, internal positive control band in order to allow kit identification.

<sup>2</sup>The codon, and in parenthesis the nucleotide, in the 2<sup>nd</sup> or 3<sup>rd</sup> exon, matching the specificity-determining 3'-end of the primer is given. Codon and nucleotide numbering as on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

110	135	135	135	260	160	130	130	130	175	175	160		Length of spec.
145		260						220					PCR product(s)
61	62	63	64	65	66	67	68	69	70	71	72		Well No.
									70			DQ4, –	*04:01:01-04:02:02, 04:04-04:08
									70			–	*04:03:01-04:03:02
												DQ5, –	*05:01:01:01-05:12
			64									DQ6, –	*06:01:01-06:01:06, 06:43
												DQ1, DQ5, DQ6, –	*06:02:01, 06:04:01, 06:04:03-06:06, 06:07:02, 06:08:02-06:10, 06:12-06:25, 06:27, 06:33-06:39, 06:42
	62											DQ6	*06:02:02
											72	DQ1, DQ6, Null, –	*06:03:01, 06:04:02, 06:07:01, 06:08:01, 06:11:01-06:11:02, 06:26N, 06:28, 06:30-06:32, 06:40-06:41, 06:44
	62										72	DQ6	*06:03:02
												DQ6	*06:29
												ser. <sup>5</sup>	DQB1 allele <sup>4</sup>
61	62	63	64	65	66	67	68	69	70	71	72		Well No.

<sup>3</sup>The codon, and in parenthesis the nucleotide, in the 2<sup>nd</sup> or 3<sup>rd</sup> exon, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Codon and nucleotide numbering as on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

<sup>4</sup>The sequence of the DQB1\*03031 allele has been shown to be identical to DQB1\*03:03:02.

<sup>5</sup>The serological reactivity of all DQB alleles is not known. In this table we use the information the expert-assigned serological grouping in Tissue Antigens (2009) 73:95-170 and have also inferred the serological grouping from the naming of the sequence-defined allele.

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

INTERPRETATION TABLE													
DR low resolution SSP typing													
Amplification patterns of the DRB1*01:01 to DRB1*10:03 alleles													
	Well <sup>6</sup>												
	73	74	75	76	77	78	79	80	81	82	83	84	
Length of spec.	205	200	200	210	120	80	85	100	210	170	90	205	
PCR product(s)	255		215		220	210	210	175	235	215	135		
										250	180		
Length of int.													
pos. control <sup>1</sup>	515	430	430	430	430	430	430	430	430	515	430	430	
5'-primer(s) <sup>2</sup>	13 (124)	14 (129)	13 (126)	13 (126)	13 (125)	13 (125)	13 (125)	13 (125)	14 (127)	16 (133)	26 (165)	31 (178)	
	5'-A.T <sup>3</sup>	5'-gAA <sup>3</sup>	5'-Agg <sup>3</sup>	5'-Agg <sup>3</sup>	5'-gTC <sup>3</sup>	5'-gTC <sup>3</sup>	5'-gTC <sup>3</sup>	5'-ACA <sup>3</sup>	5'-ATA <sup>3</sup>	5'-gTT <sup>3</sup>	5'-TAT <sup>3</sup>	5'-gCg <sup>3</sup>	
	14 (129)		13 (126)	13 (126)	47 (227)	16 (133)		13 (125)	14 (127)	16 (133)	58 (261)		
	5'-gAA <sup>3</sup>		5'-AAG <sup>3</sup>	5'-AAG <sup>3</sup>	5'-gTT <sup>3</sup>	5'-gTT <sup>3</sup>		5'-ACC <sup>3</sup>	5'-ATA <sup>3</sup>	5'-gTT <sup>3</sup>	5'-gAg <sup>3</sup>		
								13 (125)	16 (133)				
								5'-ATA <sup>3</sup>	5'-gTT <sup>3</sup>				
								13 (125)					
								5'-gTC <sup>3</sup>					
3'-primer(s) <sup>3</sup>	67 (286)	67 (286)	67 (286)	67 (286)	73 (305)	26 (164)	28 (171)	33 (184)	71 (298)	58 (260)	57 (257)	86 (344)	
	5'-gAg <sup>3</sup>	5'-gAT <sup>3</sup>	5'-gAT <sup>3</sup>	5'-gAA <sup>3</sup>	5'-ggC <sup>3</sup>	5'-ggT <sup>3</sup>	5'-CTC <sup>3</sup>	5'-gTg <sup>3</sup>	5'-CTC <sup>3</sup>	5'-CCT <sup>3</sup>	5'-CgA <sup>3</sup>	5'-CAC <sup>3</sup>	
	67 (286)		70 (295)	67 (286)	73 (305)	71 (299)	70 (295)	58 (260)	73 (305)	74 (307)	73 (305)	86 (344)	
	5'-gAg <sup>3</sup>		5'-CTg <sup>3</sup>	5'-gAg <sup>3</sup>	5'-ggC <sup>3</sup>	5'-gCT <sup>3</sup>	5'-CTg <sup>3</sup>	5'-Cgg <sup>3</sup>	5'-ggC <sup>3</sup>	5'-Cag <sup>3</sup>	5'-ggC <sup>3</sup>	5'-CCA <sup>3</sup>	
	67 (286)		70 (295)	70 (297)	74 (308)				77 (317)	86 (344)	78 (319)		
	5'-gAT <sup>3</sup>		5'-Tg <sup>3</sup>	5'-CTg <sup>3</sup>	5'-CCC <sup>3</sup>				5'-AAT <sup>3</sup>	5'-CAC <sup>3</sup>	5'-CAC <sup>3</sup>		
	71 (299)		71 (298)	72 (301)					78 (319)				
	5'-gCg <sup>3</sup>		5'-CgC <sup>3</sup>	5'-ggC <sup>3</sup>					5'-CAC <sup>3</sup>				
	86 (344)		71 (299)										
	5'-CCA <sup>3</sup>		5'-gCT <sup>3</sup>										
			73 (305)										
			5'-ggC <sup>3</sup>										
Well No.	DR	73	74	75	76	77	78	79	80	81	82	83	84





101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

Well No.	DR	73	74	75	76	77	78	79	80	81	82	83	84
DRB1 allele <sup>4</sup>	ser <sup>5</sup>												
*01:01:01-01:02:05, 01:04-01:37	DR1, Null, –	73											
*01:03	DR103, DR1		74										
*03:01:01:01-03:01:14, 03:04:01-03:06, 03:09, 03:11:01-03:16, 03:18-03:20, 03:22-03:23, 03:25-03:26, 03:28, 03:30-03:31, 03:33-03:34, 03:36-03:37, 03:43-03:45, 03:47-03:48, 03:50-03:52, 03:54-03:63	DR3, DR17, –					77	78						
*03:02:01-03:03, 03:27, 03:29, 03:38, 03:53	DR3, DR18, –					77		79					
*03:07, 03:17, 03:21, 03:24, 03:32, 03:35, 03:39-03:41, 03:49	DR3, –					77							
*03:08, 03:65	DR3, –					77	78					83	
*03:10	DR3					77	78						
*03:42	–					77							
*03:46, 03:64	–					77	78						
*04:01:01-04:61, 04:63-04:68, 04:70-04:72:02, 04:74-04:102	DR3, DR4, Null, –								80				
*04:62, 04:69, 04:73	DR4, –								80				
*07:01:01:01-07:01:04, 07:03-07:21	DR7, Null, –									81			
*08:01:01-08:02:04, 08:04:01-08:07, 08:11, 08:16-08:17, 08:22, 08:24, 08:26, 08:28, 08:39, 08:42-08:44	DR8, –										82		
*08:03:02, 08:10, 08:12-08:15, 08:18-08:19, 08:23, 08:25, 08:27, 08:29-08:30:03, 08:33-08:34, 08:36-08:38, 08:45-08:48	DR8, –										82		
*08:08	DR8										82		
*08:09, 14:15 <sup>7</sup>	DR8										82		
*08:20, 13:18, 13:47, 13:55 <sup>8</sup>	DR13, –												
*08:21	DR8										82		
*08:31, 08:41, 11:67 <sup>9</sup>	DR8, DR11, –										82		
Well No.	DR	73	74	75	76	77	78	79	80	81	82	83	84



101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

85	86	87	88	89	90	91	92	93	94	95	96	DR	Well No.
												ser <sup>5</sup>	DRB1 allele <sup>4</sup>
												DR1, Null, –	*01:01:01-01:02:05, 01:04-01:37
												DR103, DR1	*01:03
				89								DR3, DR17, –	*03:01:01-01-03:01:14, 03:04:01-03:06, 03:09, 03:11:01-03:16, 03:18-03:20, 03:22-03:23, 03:25-03:26, 03:28, 03:30-03:31, 03:33-03:34, 03:36-03:37, 03:43-03:45, 03:47-03:48, 03:50-03:52, 03:54-03:63
				89								DR3, DR18, –	*03:02:01-03:03, 03:27, 03:29, 03:38, 03:53
				89								DR3, –	*03:07, 03:17, 03:21, 03:24, 03:32, 03:35, 03:39-03:41, 03:49
85												DR3, –	*03:08, 03:65
						91	92					DR3	*03:10
												–	*03:42
												–	*03:46, 03:64
												DR3, DR4, Null, –	*04:01:01-04:61, 04:63-04:68, 04:70-04:72:02, 04:74-04:102
					90							DR4, –	*04:62, 04:69, 04:73
												DR7, Null, –	*07:01:01-01-07:01:04, 07:03-07:21
			88									DR8, –	*08:01:01-08:02:04, 08:04:01-08:07, 08:11, 08:16-08:17, 08:22, 08:24, 08:26, 08:28, 08:39, 08:42-08:44
												DR8, –	*08:03:02, 08:10, 08:12-08:15, 08:18-08:19, 08:23, 08:25, 08:27, 08:29-08:30:03, 08:33-08:34, 08:36-08:38, 08:45-08:48
			88	90								DR8	*08:08
			88				92					DR8	*08:09, 14:15 <sup>7</sup>
		87	88	89			92					DR13, –	*08:20, 13:18, 13:47, 13:55 <sup>8</sup>
		87	88				92					DR8	*08:21
85			88									DR8, DR11, –	*08:31, 08:41, 11:67 <sup>9</sup>
85	86	87	88	89	90	91	92	93	94	95	96	DR	Well No.

Negative Control



101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

Well No.	DR	73	74	75	76	77	78	79	80	81	82	83	84
*08:32	–										82		
*08:35	–										82		
*08:40	–						78				82		
*09:01:02-09:01:05, 09:01:07-09:02:02, 09:04- 09:16	DR9, –											83	
*09:01:06, 09:03	DR9											83	
*10:01:01-10:03	DR10, –												84
*11:01:01-11:01:15, 11:04:01-11:04:08, 11:06:01-11:06:02, 11:09- 11:10:02, 11:12:01- 11:12:02, 11:15, 11:24, 11:27:01-11:30, 11:32- 11:33, 11:35, 11:37:01- 11:39, 11:43-11:44, 11:46:01-11:47, 11:49:01- 11:51, 11:54:01-11:54:02, 11:56, 11:58:01-11:58:02, 11:60-11:62, 11:66, 11:72, 11:74:01-11:75, 11:77- 11:78, 11:81, 11:84, 11:88, 11:90-11:92, 11:94-11:95, 11:97, 11:99-11:102:01, 11:106, 11:108-11:113	DR11, –												
*11:02:01-11:03, 11:11:01- 11:11:02, 11:14:01- 11:14:02, 11:16, 11:20- 11:21, 11:36, 11:40-11:41, 11:48, 11:59, 11:63, 11:65:01-11:65:02, 11:68, 11:70, 11:76, 11:80, 11:83, 11:85-11:87, 11:93	DR11, DR13, –						78						
*11:05	DR11												
*11:07, 11:53, 11:103, 11:105, 11:107	DR11, –					77						83	
*11:08:01-11:08:02, 11:18- 11:19:03, 11:42, 11:57	DR11, –												
*11:13:01-11:13:02	DR11							w					
*11:17, 11:52	DR11, DR14												
*11:22, 11:98, 11:104	–												
*11:23, 11:25, 11:96	DR11, –												
*11:26, 11:34	DR11							79					
Well No.	DR	73	74	75	76	77	78	79	80	81	82	83	84

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

85	86	87	88	89	90	91	92	93	94	95	96	DR	Well No.
	86						92					-	*08:32
							92					-	*08:35
												-	*08:40
						91						DR9, -	*09:01:02-09:01:05, 09:01:07-09:02:02, 09:04-09:16
												DR9	*09:01:06, 09:03
												DR10, -	*10:01:01-10:03
85		87	88									DR11, -	*11:01:01-11:01:15, 11:04:01-11:04:08, 11:06:01-11:06:02, 11:09-11:10:02, 11:12:01-11:12:02, 11:15, 11:24, 11:27:01-11:30, 11:32-11:33, 11:35, 11:37:01-11:39, 11:43-11:44, 11:46:01-11:47, 11:49:01-11:51, 11:54:01-11:54:02, 11:56, 11:58:01-11:58:02, 11:60-11:62, 11:66, 11:72, 11:74:01-11:75, 11:77-11:78, 11:81, 11:84, 11:88, 11:90-11:92, 11:94-11:95, 11:97, 11:99-11:102:01, 11:106, 11:108-11:113
85		87	88									DR11, DR13, -	*11:02:01-11:03, 11:11:01-11:11:02, 11:14:01-11:14:02, 11:16, 11:20-11:21, 11:36, 11:40-11:41, 11:48, 11:59, 11:63, 11:65:01-11:65:02, 11:68, 11:70, 11:76, 11:80, 11:83, 11:85-11:87, 11:93
85			88									DR11	*11:05
85												DR11, -	*11:07, 11:53, 11:103, 11:105, 11:107
85		87										DR11, -	*11:08:01-11:08:02, 11:18-11:19:03, 11:42, 11:57
85							91 92					DR11	*11:13:01-11:13:02
85							91 92					DR11, DR14	*11:17, 11:52
85												-	*11:22, 11:98, 11:104
85		87	88				92					DR11, -	*11:23, 11:25, 11:96
85												DR11	*11:26, 11:34
85	86	87	88	89	90	91	92	93	94	95	96	DR	Well No.

Negative Control

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

Well No.	DR	73	74	75	76	77	78	79	80	81	82	83	84
*11:31, 11:45, 11:64	DR11, –												
*11:55	DR11												
*11:69, 11:82	–												
*11:73, 11:79	–						78						
*11:89	–												
*12:01:01-12:01:04, 12:03:02, 12:05-12:12, 12:14, 12:17, 12:24N-12:25, 12:28-12:30, 12:34	DR12, Null, –												
*12:02:01-12:02:05, 12:13, 12:15, 12:18-12:21, 12:23, 12:26-12:27, 12:31N-12:33	DR12, Null, –												
*12:04	DR12										82		
*12:16	–										82		
*12:22	–									81	82		
*13:01:01-13:02:01, 13:02:03-13:02:05, 13:04, 13:08, 13:16, 13:20, 13:22- 13:24, 13:27-13:29, 13:31- 13:32, 13:34-13:36, 13:38- 13:41, 13:48, 13:51-13:52, 13:54, 13:59, 13:61:01- 13:61:02, 13:63-13:65, 13:68-13:76, 13:78-13:80, 13:83-13:84, 13:87, 13:91- 13:93, 13:96:01-13:99, 13:102, 13:105-13:107, 13:109, 13:111-13:114, 13:117	DR11, DR13, DR14, Null, –						78						
*13:02:02, 13:03:01- 13:03:06, 13:10, 13:33:01- 13:33:03, 13:37, 13:66:01- 13:66:02, 13:81, 13:88- 13:90, 13:94-13:95, 13:101, 13:115	DR13, –						78						
*13:05:01-13:05:02, 13:07:01-13:07:02, 13:11:01-13:11:02, 13:14:01-13:14:03, 13:21:01-13:21:02, 13:42, 13:46, 13:49-13:50:02, 13:62, 13:100, 13:108	DR6, DR11, DR13, –												
Well No.	DR	73	74	75	76	77	78	79	80	81	82	83	84

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

85	86	87	88	89	90	91	92	93	94	95	96	DR	Well No.	
85		87					92					DR11, –	*11:31, 11:45, 11:64	
85			88				92					DR11	*11:55	
85			88		90							–	*11:69, 11:82	
85		87										–	*11:73, 11:79	
85							92					–	*11:89	
	86											DR12, Null, –	*12:01:01-12:01:04, 12:03:02, 12:05-12:12, 12:14, 12:17, 12:24N-12:25, 12:28-12:30, 12:34	
	86		88									DR12, Null, –	*12:02:01-12:02:05, 12:13, 12:15, 12:18-12:21, 12:23, 12:26-12:27, 12:31N-12:33	
	86											DR12	*12:04	
	86		88									–	*12:16	
	86											–	*12:22	
												Negative Control	DR11, DR13, DR14, Null, –	*13:01:01-13:02:01, 13:02:03-13:02:05, 13:04, 13:08, 13:16, 13:20, 13:22- 13:24, 13:27-13:29, 13:31- 13:32, 13:34-13:36, 13:38- 13:41, 13:48, 13:51-13:52, 13:54, 13:59, 13:61:01- 13:61:02, 13:63-13:65, 13:68-13:76, 13:78-13:80, 13:83-13:84, 13:87, 13:91- 13:93, 13:96:01-13:99, 13:102, 13:105-13:107, 13:109, 13:111-13:114, 13:117
													DR13, –	*13:02:02, 13:03:01- 13:03:06, 13:10, 13:33:01- 13:33:03, 13:37, 13:66:01- 13:66:02, 13:81, 13:88- 13:90, 13:94-13:95, 13:101, 13:115
													DR6, DR11, DR13, –	*13:05:01-13:05:02, 13:07:01-13:07:02, 13:11:01-13:11:02, 13:14:01-13:14:03, 13:21:01-13:21:02, 13:42, 13:46, 13:49-13:50:02, 13:62, 13:100, 13:108
85	86	87	88	89	90	91	92	93	94	95	96	DR	Well No.	

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

Well No.	DR	73	74	75	76	77	78	79	80	81	82	83	84
*13:06, 13:12:01-13:12:02, 13:25, 13:30, 13:56, 13:58, 13:60, 13:77, 13:82, 13:110, 13:118	DR6, DR11, DR13, -												
*13:09	DR13												
*13:13, 13:119, 14:84, 14:116 <sup>10</sup>	DR13, -												
*13:15, 13:19, 13:53, 13:57, 13:104	DR13, -						78	79					
*13:17, 13:116	DR13, -						78			81			
*13:26	DR14							79					
*13:43	DR13						78						
*13:44, 13:86	, -							79					
*13:45	DR13						78						
*13:67, 13:103	DR13, -												
*13:85	-						78	79					
*14:01:01-14:01:02, 14:04, 14:07:01-14:07:02, 14:10, 14:26, 14:28, 14:31, 14:35, 14:38-14:39, 14:54-14:55, 14:57, 14:60-14:62, 14:70- 14:71, 14:75-14:76, 14:79, 14:86-14:88, 14:90, 14:99, 14:101, 14:104, 14:107, 14:110-14:114, 14:117	DR4, DR6, DR14, DR1404 , -												
*14:01:03, 14:08, 14:23:02, 14:34, 14:72, 14:92N, 14:97	DR14, Null, -												
*14:02, 14:06:01-14:06:02, 14:09, 14:13, 14:17, 14:20, 14:29-14:30, 14:33, 14:41, 14:47-14:48, 14:51, 14:80, 14:83, 14:94, 14:106, 14:108	DR6, DR14, -							79					
*14:03:01-14:03:02, 14:12:01-14:12:02, 14:40, 14:63, 14:67, 14:77-14:78, 14:85, 14:102, 14:115	DR6, DR14, DR1403 , -							79					
*14:05:01-14:05:03, 14:14, 14:23:01, 14:23:03, 14:36, 14:43-14:45, 14:56, 14:59, 14:64, 14:91, 14:96, 14:100, 14:103	DR14, -												
*14:11	DR14										82		
Well No.	DR	73	74	75	76	77	78	79	80	81	82	83	84

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

85	86	87	88	89	90	91	92	93	94	95	96	DR	Well No.
		87		89								DR6, DR11, DR13, -	*13:06, 13:12:01-13:12:02, 13:25, 13:30, 13:56, 13:58, 13:60, 13:77, 13:82, 13:110, 13:118
			88	89								DR13	*13:09
		87		89			92					DR13, -	*13:13, 13:119, 14:84, 14:116 <sup>10</sup>
		87	88	89								DR13, -	*13:15, 13:19, 13:53, 13:57, 13:104
			88									DR13, -	*13:17, 13:116
		87	88	89								DR14	*13:26
		87	88			91	92					DR13	*13:43
				89								, -	*13:44, 13:86
		87	88		90		92					DR13	*13:45
		87	88									DR13, -	*13:67, 13:103
		87		89								-	*13:85
					90	91	92					DR4, DR6, DR14, DR1404 , -	*14:01:01-14:01:02, 14:04, 14:07:01-14:07:02, 14:10, 14:26, 14:28, 14:31, 14:35, 14:38-14:39, 14:54-14:55, 14:57, 14:60-14:62, 14:70- 14:71, 14:75-14:76, 14:79, 14:86-14:88, 14:90, 14:99, 14:101, 14:104, 14:107, 14:110-14:114, 14:117
						91	92					DR14, Null, -	*14:01:03, 14:08, 14:23:02, 14:34, 14:72, 14:92N, 14:97
				89		91						DR6, DR14, -	*14:02, 14:06:01-14:06:02, 14:09, 14:13, 14:17, 14:20, 14:29-14:30, 14:33, 14:41, 14:47-14:48, 14:51, 14:80, 14:83, 14:94, 14:106, 14:108
		87		89			92					DR6, DR14, DR1403 , -	*14:03:01-14:03:02, 14:12:01-14:12:02, 14:40, 14:63, 14:67, 14:77-14:78, 14:85, 14:102, 14:115
				89		91	92					DR14, -	*14:05:01-14:05:03, 14:14, 14:23:01, 14:23:03, 14:36, 14:43-14:45, 14:56, 14:59, 14:64, 14:91, 14:96, 14:100, 14:103
						91	92					DR14	*14:11
85	86	87	88	89	90	91	92	93	94	95	96	DR	Well No.

Negative Control

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

Well No.	DR	73	74	75	76	77	78	79	80	81	82	83	84
*14:16	DR6						78						
*14:18, 14:81	DR14, –							79					
*14:19, 14:21, 14:109	DR14, –						78	79					
*14:22, 14:105	DR14, –												
*14:24	DR14							79					
*14:25, 14:53	DR6, DR13, 14												
*14:27	DR14							79					
*14:32:01-14:32:02	DR14							w					
*14:37	DR14												
*14:42	–												
*14:46, 14:52	DR14												
*14:49	DR14							79					
*14:50	DR14									81			
*14:58	DR14												
*14:65	DR6							w					
*14:68, 14:93	DR14, –										82		
*14:69	–												
*14:73	–												
*14:74	–												
*14:82	–						78						
*14:89	–							79					
*14:95	–						78						
*14:98	–							79					
*15:01:01:01-15:20, 15:22-15:24, 15:26, 15:28-15:33, 15:35-15:58	DR2, DR15, Null, –			75									
*15:21	DR2			75									
*15:25	–			75		77							
*15:27, 15:34	–			75									
*16:01:01-16:03, 16:05:01-16:05:02, 16:07-16:17	DR16, Null, –				76								
*16:04, 16:18	DR16, –				76								
DRB3*01:01:02:01-01:15, DRB3*02:01:02:26, 02:28, DRB3*03:01:01-03:03	DR52, –												
DRB3*02:27	–												
DRB4*01:01:01:01-01:03:01:01, 01:03:01:03-01:08	DR53, –												
DRB4*01:03:01:02N	Null												
DRB5*01:01:01-01:14, DRB5*02:02-02:05	DR51, Null, –												
Well No.		73	74	75	76	77	78	79	80	81	82	83	84



101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

85	86	87	88	89	90	91	92	93	94	95	96	DR	Well No.
		87	88		90	91	92					DR6	*14:16
				89		91	92					DR14, –	*14:18, 14:81
		87		89		w						DR14, –	*14:19, 14:21, 14:109
		87	88		90	91	92					DR14, –	*14:22, 14:105
			88	89								DR14	*14:24
		87	88		90		92					DR6, DR13, 14	*14:25, 14:53
		87	88	89			92					DR14	*14:27
					90	91	92					DR14	*14:32:01-14:32:02
			88	89	90							DR14	*14:37
				89			92					–	*14:42
						91						DR14	*14:46, 14:52
					90	91	92					DR14	*14:49
					90	91	92					DR14	*14:50
					90		92					DR14	*14:58
				89		91	92					DR6	*14:65
					90	91	92					DR14, –	*14:68, 14:93
		87			90		92					–	*14:69
			88		90	91	92					–	*14:73
		87			90	91	92					–	*14:74
					90	91	92					–	*14:82
				89			92					–	*14:89
				89		91	92					–	*14:95
		87		89								–	*14:98
												DR2, DR15, Null, –	*15:01:01:01-15:20, 15:22- 15:24, 15:26, 15:28-15:33, 15:35-15:58
							w					DR2	*15:21
												–	*15:25
						91						–	*15:27, 15:34
												DR16, Null, –	*16:01:01-16:03, 16:05:01- 16:05:02, 16:07-16:17
							w					DR16, –	*16:04, 16:18
								93				DR52, –	DRB3*01:01:02:01-01:15, DRB3*02:01:02:26, 02:28, DRB3*03:01:01-03:03
		87						93				–	DRB3*02:27
									94			DR53, –	DRB4*01:01:01:01- 01:03:01:01, 01:03:01:03- 01:08
					90				94			Null	DRB4*01:03:01:02N
										95		DR51, Null, –	DRB5*01:01:01-01:14, DRB5*02:02-02:05
85	86	87	88	89	90	91	92	93	94	95	96		Well No.

Negative Control

101.709-24/06 – including *Taq* pol., IFU-01  
101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
“Instructions for Use” (IFU)

Lot No.: **12N**

#### Lot-specific information

<sup>1</sup>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 430 base pairs, for most wells, or a band of 515 base pairs, for some wells.

Well number 73 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DR low resolution typing.

In addition, well number 83 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to allow kit identification.

<sup>2</sup>The codon, and in parenthesis the nucleotide, in the 2<sup>nd</sup> exon or the 1<sup>st</sup> intron, matching the specificity-determining 3'-end of the primer is given. Codon and nucleotide numbering as on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

<sup>3</sup>The codon, and in parenthesis the nucleotide, in the 2<sup>nd</sup> exon, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Codon and nucleotide numbering as on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

<sup>4</sup>The sequence of the DRB1\*0702 allele has been shown to be identical to DRB1\*07:01:01:01.

The sequence of the DRB1\*080301 allele has been shown to be identical to DRB1\*08:03:02.

The sequence of the DRB1\*090101 allele has been shown to be identical to DRB1\*09:01:02.

The sequence of the DRB1\*1171 allele has been shown to be identical to DRB1\*11:02:01.

The sequence of the DRB1\*120301 allele has been shown to be identical to DRB1\*12:01:01.

The DRB1\*1466 allele has been renamed DRB1\*14:32:02.

The sequence of the DRB1\*1606 allele has been shown to be identical to DRB1\*16:05:01.

The sequence of the DRB3\*010101 allele has been shown to be identical to DRB3\*01:01:02:01.

The DRB4\*0101102N allele has been renamed DRB4\*01:03:10:02N.

The sequence of the DRB5\*0201 allele has been shown to be identical to DRB5\*02:02.

Due to sharing of sequence motifs in codon 38, DRB3\*01:14 will also be amplified in primer mixes 77, 78 and 89 in addition to primer mix 93.

<sup>5</sup>The serological reactivity of all DRB alleles is not known. In this table we use the expert-assigned serological grouping in Tissue Antigens (2009) 73:95-170 and have also inferred the serological grouping from the naming of the sequence-defined allele.

<sup>6</sup>Primer mix 96 contains a negative control, which will amplify more than 95% of HLA amplicons as well as the amplicons generated by control primer pairs. PCR product sizes range from 75 to 200 base pairs. The PCR product generated by the control primer pair is 430 base pairs.

<sup>7</sup>The DRB1\*08:09 and DRB1\*14:15 alleles yield identical amplification patterns in the DPB1-DQ-DR kit. These alleles can be separated by the respective high resolution primer sets.

<sup>8</sup>The DRB1\*08:20 and the DRB1\*13:18, 13:47 and 13:55 alleles yield identical amplification patterns in the DPB1-DQ-DR kit. These alleles can be separated by the respective high resolution primer sets.

<sup>9</sup>The DRB1\*08:31 and 08:41 and the DRB1\*11:67 alleles yield identical amplification patterns in the DPB1-DQ-DR kit. These alleles can be separated by the respective high resolution primer sets.

<sup>10</sup>The DRB1\*13:13 and 13:119 and the DRB1\*14:84 and 14:116 alleles yield identical amplification patterns in the DPB1-DQ-DR kit. These alleles can be separated by the respective high resolution primer sets.

'ser', serological HLA specificity.

'w', may be weakly amplified.

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

CELL LINE VALIDATION SHEET																				
DPB1 SSP kit																				
				Well																
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
				Lot No.:	201184901	201184902	201294303	201294304	201184905	201184906	201294307	201184908	201184909	201184910	201184911	201184912	201184913	201184914	201184915	201184916
IHC cell line		DPB1																		
1	9001 SA	*04:02		-	-	-	-	-	-	-	-	+	+	-	+	-	-	-	-	+
2	9280 LK707	*04:01		-	-	+	+	-	-	-	-	+	-	-	+	-	-	-	-	-
3	9011 E4181324	*02:01	*04:01	-	-	+	+	-	-	-	-	+	+	+	+	-	-	-	-	-
4	9275 GU373	*04:02	*17:01	-	-	-	-	-	-	-	-	+	+	-	+	+	-	-	-	+
5	9009 KAS011	*04:01	*14:01	-	-	+	+	-	-	-	-	+	-	-	+	-	-	-	-	+
6	9353 SM	*05:01		-	-	-	-	-	-	-	-	+	+	-	-	-	+	+	-	-
7	9020 QBL	*02:02		-	-	-	-	-	-	-	-	+	+	+	-	-	+	+	+	-
8	9025 DEU	*04:01		-	-	+	+	-	-	-	-	+	-	-	+	-	-	-	-	-
9	9026 YAR	*04:01		-	-	+	+	-	-	-	-	+	-	-	+	-	-	-	-	-
10	9107 LKT3	*05:01		-	-	-	-	-	-	-	-	+	+	-	-	-	+	+	-	-
11	9051 PITOUT	*04:01		-	-	+	+	-	-	-	-	+	-	-	+	-	-	-	-	-
12	9052 DBB	*04:01		-	-	+	+	-	-	-	-	+	-	-	+	-	-	-	-	-
13	9004 JESTHOM	*04:01		-	-	+	+	-	-	-	-	+	-	-	+	-	-	-	-	-
14	9071 OLGA	*03:01	*04:02	+	+	-	-	-	-	-	-	+	+	-	+	-	-	-	-	+
15	9075 DKB	*04:01		-	-	+	+	-	-	-	-	+	-	-	+	-	-	-	-	-
16	9037 SWEIG007	*04:02		-	-	-	-	-	-	-	-	+	-	+	-	-	-	-	-	+
17	9282 CTM3953540	*01:01	*02:01	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-	-
18	9257 32367	*04:02	*18:01	-	+	-	-	-	-	-	-	+	+	-	+	-	-	-	-	+
19	9038 BM16	*02:01		-	-	-	-	-	-	-	-	+	+	+	+	-	-	-	-	-
20	9059 SLE005	*03:01		+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
21	9064 AMALA	*04:02		-	-	-	-	-	-	-	-	+	+	-	+	-	-	-	-	+
22	9056 KOSE	*02:01	*13:01	+	-	+	-	-	+	+	+	+	+	+	+	-	-	-	-	-
23	9124 IHL	*02:01		-	-	-	-	-	-	-	-	+	+	+	+	-	-	-	-	-
24	9035 JBUSH	*04:01		-	-	+	+	-	-	-	-	+	-	-	+	-	-	-	-	-
25	9049 IBW9	*01:01		+	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-
26	9285 WT49	*04:01		-	-	+	+	-	-	-	-	+	-	-	+	-	-	-	-	-
27	9191 CH1007	*03:01	*13:01	+	+	+	-	-	+	+	-	-	-	-	-	-	-	-	-	+
28	9320 BEL5GB	*02:01	*04:01	-	-	+	+	-	-	-	-	+	+	+	+	-	-	-	-	-
29	9050 MOU	*02:01		-	-	+	+	-	-	-	-	+	+	+	+	-	-	-	-	-
30	9021 RSH	*01:01	*105:01	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	-	+
31	9019 DUCAF	*02:02		-	-	-	-	-	-	-	-	+	+	+	-	-	+	+	+	-
32	9297 HAG	*02:01	*03:01	+	+	-	-	-	-	-	-	+	+	+	+	+	-	-	-	+
33	9098 MT14B	*04:02		-	-	-	-	-	-	-	-	+	+	-	+	-	-	-	-	+
34	9104 DHIF	*04:01		-	-	+	+	-	-	-	-	+	-	-	+	-	-	-	-	-
35	9302 SSTO	*04:01		-	-	+	+	-	-	-	-	+	-	-	+	-	-	-	-	-
36	9024 KT17	*05:01		-	-	-	-	-	-	-	-	+	-	-	-	+	+	-	-	-
37	9065 HHKB	*04:01		-	-	+	+	-	-	-	-	+	-	-	+	-	-	-	-	-
38	9099 LZL	*04:02		-	-	-	-	-	-	-	-	+	-	-	+	-	-	-	-	+
39	9315 CML	*04:01	*14:01	-	-	+	+	-	-	-	-	+	-	-	+	-	-	-	-	+
40	9134 WHONP199	*05:01		-	-	-	-	-	-	-	-	+	+	-	-	-	+	+	-	-
41	9055 H0301	*05:01		-	-	-	-	-	-	-	-	+	+	-	-	-	+	+	-	-
42	9066 TAB089	*02:02		-	-	-	-	-	-	-	-	+	+	-	-	+	+	+	-	-
43	9076 T7526	*13:01		+	-	+	-	-	+	+	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*04:01		-	-	+	+	-	-	-	-	+	-	-	+	-	-	-	-	-
45	9239 SHJO	*03:01	*04:02	+	+	-	-	-	-	-	-	+	+	-	+	-	-	-	-	+
46	9013 SCHU	*04:02		-	-	-	-	-	-	-	-	+	-	-	+	-	-	-	-	+
47	9045 TUBO	*02:01	*04:02	-	-	-	-	-	-	-	-	+	+	+	+	-	-	-	-	+
48	9303 TER-ND	*02:01	*04:01	-	-	+	+	-	-	-	-	+	+	+	+	-	-	-	-	-

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

CELL LINE VALIDATION SHEET																				
DPB1 SSP kit																				
			Lot No.:	Well																
				17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
				201184917	201184918	201184919	201184920	201184921	201294322	201184923	201184924	201184925	201184926	201184927	201184928	201184929	201184930	201184931	201184932	
	IHWC cell line	DPB1																		
1	9001 SA	*04:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*04:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*02:01	*04:01	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*04:02	*17:01	+	+	-	-	-	-	-	-	-	+	+	+	+	+	-	-	-
5	9009 KAS011	*04:01	*14:01	+	+	+	+	+	+	-	-	-	-	-	-	-	+	-	-	-
6	9353 SM	*05:01		-	-	-	-	-	-	+	+	+	-	-	-	-	-	+	-	-
7	9020 QBL	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*04:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*04:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*05:01		-	-	-	-	-	-	+	+	+	-	-	-	-	-	+	-	-
11	9051 PITOUT	*04:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*04:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*04:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*03:01	*04:02	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*04:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*04:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540	*01:01	*02:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
18	9257 32367	*04:02	*18:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*03:01		+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*04:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*02:01	*13:01	+	-	-	+	-	-	-	-	-	-	-	+	-	-	+	-	-
23	9124 IHL	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*04:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*01:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
26	9285 WT49	*04:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*03:01	*13:01	+	+	+	+	+	-	-	-	-	-	-	+	-	-	+	-	-
28	9320 BEL5GB	*02:01	*04:01	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*01:01	*105:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
31	9019 DUCAF	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*02:01	*03:01	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B	*04:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*04:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*04:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*05:01		-	-	-	-	-	-	+	+	+	-	-	-	-	-	+	-	-
37	9065 HHKB	*04:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL	*04:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*04:01	*14:01	+	+	+	+	+	+	-	-	-	-	-	-	-	+	-	-	-
40	9134 WHONP199	*05:01		-	-	-	-	-	-	+	+	+	-	-	-	-	-	+	-	-
41	9055 H0301	*05:01		-	-	-	-	-	-	+	+	+	-	-	-	-	-	+	-	-
42	9066 TAB089	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*13:01		+	-	-	+	-	-	-	-	-	-	-	+	-	-	+	-	-
44	9057 TEM	*04:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*03:01	*04:02	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
46	9013 SCHU	*04:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*02:01	*04:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*02:01	*04:01	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-



101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

CELL LINE VALIDATION SHEET																			
DPB1 SSP kit																			
				Well															
				33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
				201294333	201184934	201184935	201184936	201294337	201184938	201184939	201184940	201294341	201184942	201184943	201294344	201184945	201184946	201184947	201184948
			Lot No.:																
	IHWC cell line		DPB1																
1	9001 SA		*04:02		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
2	9280 LK707		*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
3	9011 E4181324		*02:01	*04:01	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
4	9275 GU373		*04:02	*17:01	-	-	-	-	-	-	+	-	-	-	-	-	-	+	-
5	9009 KAS011		*04:01	*14:01	-	+	-	-	-	-	-	-	-	-	-	-	-	+	-
6	9353 SM		*05:01		-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
7	9020 QBL		*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
8	9025 DEU		*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
9	9026 YAR		*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
10	9107 LKT3		*05:01		-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
11	9051 PITOUT		*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
12	9052 DBB		*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
13	9004 JESTHOM		*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
14	9071 OLGA		*03:01	*04:02	-	-	-	-	+	-	-	-	-	-	-	-	-	+	-
15	9075 DKB		*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
16	9037 SWEIG007		*04:02		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540		*01:01	*02:01	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
18	9257 32367		*04:02	*18:01	-	-	-	+	-	-	-	-	-	-	-	-	-	+	-
19	9038 BM16		*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
20	9059 SLE005		*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA		*04:02		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE		*02:01	*13:01	+	-	-	-	-	-	-	-	-	-	-	-	-	+	-
23	9124 IHL		*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
24	9035 JBUSH		*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
25	9049 IBW9		*01:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49		*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
27	9191 CH1007		*03:01	*13:01	+	-	-	-	-	-	+	-	-	+	-	-	-	-	-
28	9320 BEL5GB		*02:01	*04:01	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
29	9050 MOU		*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
30	9021 RSH		*01:01	*105:01	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
31	9019 DUCAF		*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
32	9297 HAG		*02:01	*03:01	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
33	9098 MT14B		*04:02		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF		*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
35	9302 SSTO		*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
36	9024 KT17		*05:01		-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
37	9065 HHKB		*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
38	9099 LZL		*04:02		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
39	9315 CML		*04:01	*14:01	-	+	-	-	-	-	-	-	-	-	-	-	-	+	-
40	9134 WHONP199		*05:01		-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
41	9055 H0301		*05:01		-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
42	9066 TAB089		*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
43	9076 T7526		*13:01		+	-	-	-	-	-	+	-	-	-	-	-	-	-	-
44	9057 TEM		*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
45	9239 SHJO		*03:01	*04:02	-	-	-	-	-	-	-	-	-	+	-	-	-	+	-
46	9013 SCHU		*04:02		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO		*02:01	*04:02	-	-	-	-	+	-	-	-	-	-	-	-	-	+	-
48	9303 TER-ND		*02:01	*04:01	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

<b>CELL LINE VALIDATION SHEET</b>																			
<b>DQ low/DQB1*03 medium to high resolution primer set</b>																			
			Production No.	Well															
				49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
				201194801	201194802	201194803	201194804	201194805	201194806	201194807	201194808	200963001	200963005	200963006	200963007	200963008	200963009	200963010	200963011
	<b>IHWC cell line</b>	<b>DQB1</b>																	
1	9001 SA	*05:01		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*06:01	*02:02	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	+
3	9011 E4181324	*06:01		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	+
4	9275 GU373	*02:01		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*05:02		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*03:02	*06:01	-	+	-	-	+	-	+	-	-	-	-	-	-	-	-	+
7	9020 QBL	*02:01		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*03:01		-	-	-	+	-	-	+	-	+	-	-	-	-	-	-	-
9	9026 YAR	*03:02		-	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*04:01		-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
11	9051 PITOUT	*02:02		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*03:03		-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*05:01		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*04:02		-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
15	9075 DKB	*03:03		-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*03:01		-	-	-	+	-	-	+	-	+	-	-	-	-	-	-	-
17	9282 CTM3953540	*02:01	*06:03	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367	*06:02	*02:02	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*03:01		-	-	-	+	-	-	+	-	+	-	-	-	-	-	-	-
20	9059 SLE005	*06:04		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*03:01		-	-	-	+	-	-	+	-	+	-	-	-	-	-	-	-
22	9056 KOSE	*05:03	*06:04	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*05:03	*06:01	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*03:01		-	-	-	+	-	-	+	-	+	-	-	-	-	-	-	-
25	9049 IBW9	*02:02		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*02:01		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*04:01	*05:01	+	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
28	9320 BEL5GB	*02:02	*03:01	-	-	+	+	-	-	+	-	+	-	-	-	-	-	-	-
29	9050 MOU	*02:02		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*04:02		-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
31	9019 DUCAF	*02:01		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*03:01		-	-	-	+	-	-	+	-	+	-	-	-	-	-	-	-
33	9098 MT14B	*03:02		-	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*03:01		-	-	-	+	-	-	+	-	+	-	-	-	-	-	-	-
35	9302 SSTO	*03:05		-	-	-	-	+	-	+	-	-	-	+	-	-	-	-	-
36	9024 KT17	*03:02		-	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*06:03		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL	*03:01		-	-	-	+	-	-	+	-	+	-	-	-	-	-	-	-
39	9315 CML	*02:01	*03:01	-	-	+	+	-	-	+	-	+	-	-	-	-	-	-	-
40	9134 WHONP199	*02:02	*03:03	-	-	+	-	-	+	+	-	-	-	-	-	-	-	-	-
41	9055 H0301	*06:09		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089	*06:01		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	+
43	9076 T7526	*03:03		-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-
44	9057 TEM	*05:03		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*02:02		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013 SCHU	*06:02		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*03:01		-	-	-	+	-	-	+	-	+	-	-	-	-	-	-	-
48	9303 TER-ND	*05:01		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

<b>CELL LINE VALIDATION SHEET</b>												
<b>DQ low/DQB1*03 medium to high resolution primer set</b>												
				Production No.	Well							
					65	66	67	68	69	70	71	72
					200963012	200967966	201295314	200963016	200967969	200963018	200963019	200963022
	<b>IHWC cell line</b>	<b>DQB1</b>										
1	9001 SA	*05:01			-	-	-	-	-	-	-	-
2	9280 LK707	*06:01	*02:02		-	-	-	-	-	-	-	-
3	9011 E4181324	*06:01			-	-	-	-	-	-	-	-
4	9275 GU373	*02:01			-	-	-	-	-	-	-	-
5	9009 KAS011	*05:02			-	-	-	-	-	-	-	-
6	9353 SM	*03:02	*06:01		-	-	-	-	-	+	-	-
7	9020 QBL	*02:01			-	-	-	-	-	-	-	-
8	9025 DEU	*03:01			+	-	+	+	-	-	+	-
9	9026 YAR	*03:02			-	-	-	-	-	+	-	-
10	9107 LKT3	*04:01			-	-	-	-	-	-	-	-
11	9051 PITOUT	*02:02			-	-	-	-	-	-	-	-
12	9052 DBB	*03:03			-	-	-	+	-	+	-	-
13	9004 JESTHOM	*05:01			-	-	-	-	-	-	-	-
14	9071 OLGA	*04:02			-	-	-	-	-	+	-	-
15	9075 DKB	*03:03			-	-	-	+	-	+	-	-
16	9037 SWEIG007	*03:01			+	-	+	+	-	-	+	-
17	9282 CTM 3953540	*02:01	*06:03		-	-	-	-	-	-	-	+
18	9257 32367	*06:02	*02:02		-	-	-	-	-	-	-	-
19	9038 BM16	*03:01			+	-	+	+	-	-	+	-
20	9059 SLE005	*06:04			-	-	-	-	-	-	-	-
21	9064 AMALA	*03:01			+	-	+	+	-	-	+	-
22	9056 KOSE	*05:03	*06:04		-	-	-	-	-	-	-	-
23	9124 IHL	*05:03	*06:01		-	-	-	-	-	-	-	-
24	9035 JBUSH	*03:01			+	-	+	+	-	-	+	-
25	9049 IBW9	*02:02			-	-	-	-	-	-	-	-
26	9285 WT49	*02:01			-	-	-	-	-	-	-	-
27	9191 CH1007	*04:01	*05:01		-	-	-	-	-	+	-	-
28	9320 BEL5GB	*02:02	*03:01		+	-	+	+	-	-	+	-
29	9050 MOU	*02:02			-	-	-	-	-	-	-	-
30	9021 RSH	*04:02			-	-	-	-	-	+	-	-
31	9019 DUCAF	*02:01			-	-	-	-	-	-	-	-
32	9297 HAG	*03:01			+	-	+	+	-	-	+	-
33	9098 MT14B	*03:02			-	-	-	-	-	+	-	-
34	9104 DHIF	*03:01			+	-	+	+	-	-	+	-
35	9302 SSTO	*03:05			-	-	-	-	-	+	-	-
36	9024 KT17	*03:02			-	-	-	-	-	+	-	-
37	9065 HHKB	*06:03			-	-	-	-	-	-	-	+
38	9099 LZL	*03:01			+	-	+	+	-	-	+	-
39	9315 CML	*02:01	*03:01		+	-	+	+	-	-	+	-
40	9134 WHONP199	*02:02	*03:03		-	-	-	+	-	+	-	-
41	9055 H0301	*06:09			-	-	-	-	-	-	-	-
42	9066 TAB089	*06:01			-	-	-	-	-	-	-	-
43	9076 T7526	*03:03			-	-	-	+	-	+	-	-
44	9057 TEM	*05:03			-	-	-	-	-	-	-	-
45	9239 SHJO	*02:02			-	-	-	-	-	-	-	-
46	9013 SCHU	*06:02			-	-	-	-	-	-	-	-
47	9045 TUBO	*03:01			+	-	+	+	-	-	+	-
48	9303 TER-ND	*05:01			-	-	-	-	-	-	-	-

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

<b>CELL LINE VALIDATION SHEET</b>																			
<b>DR low resolution primer set</b>																			
			Prod. No.:	Well															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				201191601	201191602	201191603	201194704	201191605	201191606	201191607	201191608	201185109	201191610	201191611	201191612	201191613	201191614	201193315	201191616
	<b>IHWC cell line</b>	<b>DRB1</b>																	
1	9001 SA	*01:01		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*15:02	*04:05	-	-	+	-	-	-	-	+	-	-	-	-	-	-	-	-
3	9011 E4181324	*15:02		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*03:01		-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*16:01		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*04:07	*08:03	-	-	-	-	-	-	-	+	-	+	-	-	-	-	-	-
7	9020 QBL	*03:01		-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*04:01		-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
9	9026 YAR	*04:02		-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
10	9107 LKT3	*04:05		-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
11	9051 PITOUT	*07:01		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
12	9052 DBB	*07:01		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
13	9004 JESTHOM	*01:01		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*08:02		-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	+
15	9075 DKB	*09:01		-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
16	9037 SWEIG007	*11:01		-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	+
17	9282 CTM3953540	*03:01	*13:01	-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+
18	9257 32367	*09:01	*11:01	-	-	-	-	-	-	-	-	-	-	+	-	+	-	+	+
19	9038 BM16	*12:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
20	9059 SLE005	*13:02		-	-	-	-	-	+	-	-	-	-	-	-	-	-	+	+
21	9064 AMALA	*14:02		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*13:02	*14:54	-	-	-	-	-	+	-	-	-	-	-	-	-	-	+	+
23	9124 IHL	*08:03	*14:14	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-
24	9035 JBUSH	*11:01		-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	+
25	9049 IBW9	*07:01		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
26	9285 WT49	*03:01		-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*04:05	*10:01	-	-	-	-	-	-	-	+	-	-	-	+	-	-	-	-
28	9320 BEL5GB	*04:16	*07:01	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-
29	9050 MOU	*07:01		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
30	9021 RSH	*03:02		-	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-
31	9019 DUCAF	*03:01		-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*13:03		-	-	-	-	-	+	-	-	-	-	-	-	-	-	+	-
33	9098 MT14B	*04:04		-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
34	9104 DHIF	*11:01		-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	+
35	9302 SSTO	*04:03		-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
36	9024 KT17	*04:03	*04:06	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
37	9065 HHKB	*13:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	+	+
38	9099 LZL	*14:02		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
39	9315 CML	*03:01	*04:01	-	-	-	-	+	+	-	+	-	-	-	-	-	-	-	-
40	9134 WHONP199	*07:01	*09:01	-	-	-	-	-	-	-	-	+	-	+	-	-	-	-	-
41	9055 H0301	*13:02		-	-	-	-	-	+	-	-	-	-	-	-	-	-	+	+
42	9066 TAB089	*08:03		-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-
43	9076 T7526	*09:01		-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
44	9057 TEM	*14:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*07:01		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
46	9013 SCHU	*15:01		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*11:04	*12:01	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+
48	9303 TER-ND	*01:03		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-





101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

<b>CELL LINE VALIDATION SHEET</b>											
<b>DR low resolution primer set</b>											
				<b>Well</b>							
				Prod. No.:	17	18	19	20	21	22	23
					201191617	201193318	201191619	201191620	201191629	201191630	201193331
	<b>IHWC cell line</b>		<b>DRB1</b>								
1	9001 SA		*01:01		-	-	-	-	-	-	-
2	9280 LK707		*15:02	*04:05	-	-	-	-	-	+	+
3	9011 E4181324		*15:02		-	-	-	-	-	-	+
4	9275 GU373		*03:01		+	-	-	-	+	-	-
5	9009 KAS011		*16:01		-	-	-	-	-	-	+
6	9353 SM		*04:07	*08:03	-	-	-	-	-	+	-
7	9020 QBL		*03:01		+	-	-	-	+	-	-
8	9025 DEU		*04:01		-	-	-	-	-	+	-
9	9026 YAR		*04:02		-	-	-	-	-	+	-
10	9107 LKT3		*04:05		-	-	-	-	-	+	-
11	9051 PITOUT		*07:01		-	-	-	-	-	+	-
12	9052 DBB		*07:01		-	+	-	-	-	+	-
13	9004 JESTHOM		*01:01		-	-	-	-	-	-	-
14	9071 OLGA		*08:02		-	-	-	-	-	-	-
15	9075 DKB		*09:01		-	-	+	-	-	+	-
16	9037 SWEIG007		*11:01		-	-	-	-	+	-	-
17	9282 CTM3953540		*03:01	*13:01	+	-	-	-	+	-	-
18	9257 32367		*09:01	*11:01	-	-	+	-	+	+	-
19	9038 BM16		*12:01		-	-	-	-	+	-	-
20	9059 SLE005		*13:02		+	-	-	-	+	-	-
21	9064 AMALA		*14:02		+	-	+	-	+	-	-
22	9056 KOSE		*13:02	*14:54	+	+	+	+	+	-	-
23	9124 IHL		*08:03	*14:14	+	-	+	+	+	-	-
24	9035 JBUSH		*11:01		-	-	-	-	+	-	-
25	9049 IBW9		*07:01		-	-	-	-	-	+	-
26	9285 WT49		*03:01		+	-	-	-	+	-	-
27	9191 CH1007		*04:05	*10:01	-	-	-	-	-	+	-
28	9320 BEL5GB		*04:16	*07:01	-	-	-	-	-	+	-
29	9050 MOU		*07:01		-	-	-	-	-	+	-
30	9021 RSH		*03:02		+	-	-	-	+	-	-
31	9019 DUCAF		*03:01		+	-	-	-	+	-	-
32	9297 HAG		*13:03		+	-	-	-	+	-	-
33	9098 MT14B		*04:04		-	-	-	-	-	+	-
34	9104 DHIF		*11:01		-	-	-	-	+	-	-
35	9302 SSTO		*04:03		-	-	-	-	-	+	-
36	9024 KT17		*04:03	*04:06	-	-	-	-	-	+	-
37	9065 HHKB		*13:01		+	-	-	-	+	-	-
38	9099 LZL		*14:02		+	-	+	-	+	-	-
39	9315 CML		*03:01	*04:01	+	-	-	-	+	+	-
40	9134 WHONP199		*07:01	*09:01	-	-	+	-	-	+	-
41	9055 H0301		*13:02		+	-	-	-	+	-	-
42	9066 TAB089		*08:03		-	-	-	-	-	-	-
43	9076 T7526		*09:01		-	-	+	-	-	+	-
44	9057 TEM		*14:01		-	+	+	+	+	-	-
45	9239 SHJO		*07:01		-	-	-	-	-	+	-
46	9013 SCHU		*15:01		-	-	-	-	-	-	+
47	9045 TUBO		*11:04	*12:01	-	-	-	-	+	-	-
48	9303 TER-ND		*01:03		-	-	-	-	-	-	-

101.709-24/06 – including *Taq* pol., IFU-01  
 101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

## CERTIFICATE OF ANALYSIS

### Olerup SSP® DPB1-DQ-DR SSP Combi Tray

**Product number:** 101.709-24/06– including *Taq* pol.  
 101.709-24u/06u– without *Taq* pol.  
**Lot number:** 12N  
**Expiry date:** 2014-July-01  
**Number of tests:** 24 tests – Product No. 101.709-24/24u  
 6 tests – Product No. 101.709-06/06u  
**Number of wells per test:** 95 + 1

#### Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2011-849-01	17	2011-849-17	33	2012-943-33
2	2011-849-02	18	2011-849-18	34	2011-849-34
3	2012-943-03	19	2011-849-19	35	2011-849-35
4	2012-943-04	20	2011-849-20	36	2011-849-36
5	2011-849-05	21	2011-849-21	37	2012-943-37
6	2011-849-06	22	2012-943-22	38	2011-849-38
7	2012-943-07	23	2011-849-23	39	2011-849-39
8	2011-849-08	24	2011-849-24	40	2011-849-40
9	2011-849-09	25	2011-849-25	41	2012-943-41
10	2011-849-10	26	2011-849-26	42	2011-849-42
11	2011-849-11	27	2011-849-27	43	2011-849-43
12	2011-849-12	28	2011-849-28	44	2012-943-44
13	2011-849-13	29	2011-849-29	45	2011-849-45
14	2011-849-14	30	2011-849-30	46	2011-849-46
15	2011-849-15	31	2011-849-31	47	2011-849-47
16	2011-849-16	32	2011-849-32	48	2011-849-48

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
49	2011-948-01	57	2009-630-01	65	2009-630-12
50	2011-948-02	58	2009-630-05	66	2009-679-66
51	2011-948-03	59	2009-630-06	67	2012-953-14
52	2011-948-04	60	2009-630-07	68	2009-630-16
53	2011-948-05	61	2009-630-08	69	2009-679-69
54	2011-948-06	62	2009-630-09	70	2009-630-18
55	2011-948-07	63	2009-630-10	71	2009-630-19
56	2011-948-08	64	2009-630-11	72	2009-630-22

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
73	2011-916-01	81	2011-851-09	89	2011-916-17
74	2011-916-02	82	2011-916-10	90	2011-933-18
75	2011-916-03	83	2011-916-11	91	2011-916-19
76	2011-947-04	84	2011-916-12	92	2011-916-20
77	2011-916-05	85	2011-916-13	93	2011-916-29
78	2011-916-06	86	2011-916-14	94	2011-916-30
79	2011-916-07	87	2011-933-15	95	2011-933-31
80	2011-916-08	88	2011-916-16		

101.709-24/06 – including *Taq* pol., IFU-01  
101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
“Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

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 pairs in solutions 41, 42, 44, 46, 60 to 63, 66 and 69 were available. The specificity of most of the primers in these solutions was tested by separately adding one or more additional 5'-primer, respectively one or more additional 3'-primer.

In primer solutions 44 and 61 the 5'-primers were not possible to test.

In primer solutions 41, 42 and 46 the 3'-primers were not possible to test.

Additional 5'-primers or 3'-primers in primer solutions 14, 38, 40, 43, 47, 48, 50, 56, 73, 75, 76, 78, 81 to 84, 87, 88, 90 and 92 were tested by separately adding one or more additional 3'-primer, respectively one or more additional 5'-primer.

In primer solutions 15, 16, 23, 25, 26, 32, 33, 38, 59, 66, 69, 73, 75, 76, 80 to 82, 85, 87 and 88 one or more of the 5'-primers were not possible to test. In primer solutions 8, 11, 24, 28, 48, 63, 66, 67, 69, 73, 75, 76, 85 and 94 one or more of the 3'-primers were not possible to test.

The negative control primer pairs, **Production No. 2011-928-01**, can detect contamination with PCR products diluted  $10^{-7}$ .

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

**Date of approval:** 2012-February-03

**Approved by:**

## Production Quality Control

101.709-24/06 – including *Taq* pol., IFU-01  
101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
“Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

## Declaration of Conformity

**Product name:** *Olerup* SSP® DPB1-DQ-DR SSP Combi Tray  
**Product number:** 101.709-24/24u, -06/06u  
**Lot number:** 12N

**Intended use:** DPB1, DQB1 and DRB1 low 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.

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-February-03

Ann-Cathrin Jareman  
Head of QA and Regulatory Affairs

101.709-24/06 – including *Taq* pol., IFU-01  
101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
“Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

101.709-24/06 – including *Taq* pol., IFU-01  
101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
“Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

101.709-24/06 – including *Taq* pol., IFU-01  
101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
“Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

101.709-24/06 – including *Taq* pol., IFU-01  
101.709-24u/06u – without *Taq* pol., IFU-02

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
“Instructions for Use” (IFU)

Lot No.: **12N**

Lot-specific information

**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](mailto: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](mailto:support-at@olerup.com)

**Web page:** <http://www.olerup-ssp.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](mailto:info.us@olerup.com)

**Web page:** <http://www.olerup-ssp.com>

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