

101.311-24/04 – including *Taq* pol., IFU-01
101.311-24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **45V**

Lot-specific information
Olerup SSP[®] DPB1

Product number:	101.311-24/04 – including <i>Taq</i> pol. 101.311-24u/04u – without <i>Taq</i> pol.
Lot number:	45V
Expiry date:	2016-August-01
Number of tests:	24 tests – Product No. 101.311-24/24u 4 tests – Product No. 101.311-04/04u
Number of wells per test:	62+1
Storage - pre-aliquoted primers:	dark at -20°C
- PCR Master Mix:	-20°C
- Adhesive PCR seals	RT
- Product Insert	RT

This Product Description is only valid for Lot No. 45V.

Complete product documentation consists of generic Instructions for Use (IFU), lot specific Product Insert, Worksheet and Certificate.

CHANGES COMPARED TO THE PREVIOUS OLERUP SSP[®] DPB1 LOT (25S)

A well containing Negative Control primer pairs has been added.

The format of the Product Insert and Worksheet have been changed.

Fifteen wells have been added to DPB1, wells **49 to 63**.

The DPB1 specificity and interpretation tables have been updated for the DPB1 alleles described since the previous *Olerup SSP[®] DPB1* lot was made (**Lot No. 25S**).

As of lot series V, the Specificity Table is included in the lot-specific Product Insert, and the Interpretation Table is included in the Worksheet.

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

Well	5'-primer	3'-primer	rationale
4	-	Added	3'-primer added for the DPB1*31:01 allele.
37	Moved	Moved	Primer pair moved to well 57.
40	Moved	Moved	Primer pair moved to well 58.
41	-	Added	3'-primer added for the DPB1*154:01N allele.
43	Moved	Moved	Primer pair moved to well 59.
46	-	Modified	3'-primer modified for improved resolution of the DPB1*96:01 allele.
47	Moved	Moved, added	Primer pair moved to well 60, 3'-primer added for the DPB1*140:01 allele.
49	New	New	New primer pairs for the DPB1*143:01 and DPB1*149:01 alleles.
50	New	New	New primer pairs for the DPB1*142:01 and DPB1*146:01 alleles.
51	New	New	New primer pair for the DPB1*145:01 allele.
52	New	New	New primer pairs for the DPB1*151:01 and DPB1*165:01 alleles.
53	New	New	New primer pairs for the DPB1*153:01, DPB1*157:01 and DPB1*163:01 alleles.
54	New	New	New primer pairs for the DPB1*159:01N, DPB1*160:01 and DPB1*161:01N alleles.
55	New	New	New primer pair for the DPB1*155:01 allele.
56	New	New	New primer pair for the DPB1*148:01 allele.
57	Added	Added	Primer pair added from well 37.
58	Added	Added	Primer pair added from well 40.
59	Added	Added	Primer pair added from well 43.
60	Added	Added	Primer pair added from well 47.
61	New	New	New primer pair for the DPB1*168:01 allele.
62	New	New	New primer pair for the DPB1*131:01, DPB1*124:01, DPB1*133:01 and DPB1*162:01 alleles.

Change in revision R01 compared to R00:

1. Primer mix 23 may have tendencies of unspecific amplifications. A footnote has been added in the Specificity Table.

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Well **63** contains Negative Control primer pairs, that will amplify more than 95% of the *Olerup SSP®* HLA Class I, DRB, DQB1 and DPB1 amplicons as well as amplicons generated by a 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
5'-primer¹	164	340	440	45	45	43
	5'-CAC ^{3'}	5'-Agg ^{3'}	5'-TTA ^{3'}	5'-Tgg ^{3'}	5'-Tgg ^{3'}	5'-Tgg ^{3'}
3'-primer²	231	2nd I	507	59	58	57
	5'-TgC ^{3'}	5'-AAA ^{3'}	5'-TTg ^{3'}	5'-CTC ^{3'}	5'-ggC ^{3'}	5'-CTC ^{3'}
A*	+	+	+			
B*	+	+	+			
C*	+	+	+			
DRB1				+	+	
DRB3				+	+	
DRB5				+		
DQB1					+	
DPB1						+

¹The nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2nd or 3rd 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 web site. The sequence of the 3 terminal nucleotides of the primer is given.

²The nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2nd or 3rd exon or the 2nd 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 web site. The sequence of the 3 terminal nucleotides of the primer is given.

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PRODUCT DESCRIPTION

DPB1 SSP typing

CONTENT

The primer set contains 5'- and 3'-primers for identifying the DPB1*01:01 to DPB1*168:01 alleles.

PLATE LAYOUT

Each test consists of 63 PCR reactions in a 64 well cut PCR plate. Well 64 is empty.

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

The 64 well cut PCR plate is marked with ‘DPB1’ in silver/gray ink.

Well No. 1 is marked with the Lot No. ‘45V’.

Wells 1 to 62 – DPB1 high resolution primers.

Well 63 – Negative Control (NC).

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 heat-sealed with a PCR-compatible foil.

Please note: When removing each 64 well PCR plate, make sure that the remaining plates stay sealed. Use a scalpel or a similar instrument to carefully cut the foil between the plates.

INTERPRETATION

Only DPB1 alleles will be amplified by the DPB1 typing kit. Thus, the interpretation of DPB1 typings is not influenced by the DPB2 gene or other HLA class II genes.

UNIQUELY IDENTIFIED ALLELES

All the phenotypically different DPB1 alleles, i.e. **DPB1*01:01 to DPB1*168:01**, recognized by the HLA Nomenclature Committee in October 2013^{1,2} will give rise to unique amplification patterns by the primers in the DPB1 typing kit.

The DPB1 typing kit cannot distinguish the following silent mutations: DPB1*01:01:01-01:01:03, the DPB1*02:01:02, 02:01:04-02:01:05 and 02:01:07-02:01:09, the DPB1*03:01:01-03:01:03, the DPB1*04:01:01-04:01:01:02 and 04:01:03-04:01:06, the DPB1*04:02:01:01-04:02:01:02, the DPB1*05:01:01-05:01:02, and the DPB1*41:01:01-41:01:02 alleles.

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¹DPB1 alleles listed on the IMGT/HLA web page 2013-October-11, release 3.14.0,
www.ebi.ac.uk/imgt/hla.

²Alleles that have been deleted from or renamed in the official WHO HLA Nomenclature up to and including the last IMGT/HLA database release can be retrieved from web page
<http://hla.alleles.org/alleles/deleted.html>.

RESOLUTION IN HOMO- AND HETEROZYGOTES

Results file with resolution in DPB1 homo- and heterozygotes is available upon request.

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Lot-specific information
SPECIFICITY TABLE

DPB1 SSP typing

Specificities and sizes of the PCR products of the 62+1 primer mixes used for DPB1 SSP typing³

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified DPB1 alleles ³
1	245 bp	515 bp	*01:01:01-01:01:03, 03:01:01-03:01:03, 13:01:01-13:01:02, 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, 142:01, 159:01N, 160:01, 162:01
2	220 bp	515 bp	*01:01:01-01:01:03, 03:01:01-03:01:03, 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, 142:01, 158:01, 159:01N, 162:01, 164:01
3 ^{4,5,6}	100 bp	430 bp	*01:01:01-01:01:03, 04:01:01:01-04:01:07, 11:01:01-11:01:02, 13:01:01-13:01:02, 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, 142:01, 147:01, 149:01, 150:01, 158:01, 159:01N, 160:01, 162:01
4	140 bp	430 bp	*01:01:01-01:01:03, 04:01:01:01-04:01:01:02, 04:01:03-04:01:07, 24:01, 26:01:01-26:01:02, 27:01, 28:01, 31:01, 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, 139:01, 142:01, 149:01, 150:01, 158:01, 159:01N, 162:01
5	235 bp	515 bp	*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, 150:01, 159:01N, 162:01, 166:01
6	165 bp	430 bp	*01:01:01-01:01:03, 13:01:01-13:01:02, 26:01:01-26:01:02, 65:01, 107:01, 118:01, 122:01, 127:01, 133:01, 142:01, 159:01N, 160:01, 162:01
7	160 bp	430 bp	*01:01:01-01:01:03, 13:01:01-13:01:02, 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, 142:01, 150:01, 159:01N, 160:01, 162:01
8	210 bp	515 bp	*02:01:02-02:01:05, 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, 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, 135:01, 138:01, 140:01, 141:01, 143:01, 144:01, 145:01, 146:01, 148:01, 149:01, 150:01, 151:01, 153:01, 154:01N, 155:01, 163:01, 165:01
9 ⁵	165 bp	430 bp	*02:01:02-02:01:05, 02:01:06 ^w , 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,

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10	220 bp	515 bp	*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, 141:01, 145:01, 146:01, 148:01, 151:01, 152:01, 154:01N, 155:01, 163:01, 165:01, 166:01
11	185 bp	515 bp	*02:01:02-02:01:09, 04:01:01:01-04:01:06, 04:02:01:01-04:02:01:02, 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, 138:01, 141:01, 143:01, 144:01, 145:01, 146:01, 149:01, 151:01, 153:01, 154:01N, 155:01, 163:01, 164:01
12⁴	80 bp	515 bp	*02:01:02, 02:01:03 ^w , 02:01:04-02:01:09, 06:01, 08:01, 09:01:01-09:01:02, 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, 137:01, 141:01, 145:01, 146:01, 151:01, 152:01, 154:01N, 155:01, 156:01, 157:01, 161:01N, 163:01, 165:01, 166:01, 167:01, 168:01
13	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, 135:01, 139:01, 140:01
14⁴	105 bp	430 bp	*02:02, 05:01:01-05:01:02, 21:01, 22:01, 36:01, 38:01, 97:01, 100:01, 101:01, 114:01, 135:01, 140:01
	175 bp		*21:01, 30:01, 36:01, 54:01, 114:01
15	200 bp	430 bp	*02:02, 48:01, 95:01, 99:01, 100:01, 101:01, 112:01, 116:01, 148:01
16^{4,5,6,9}	80 bp	430 bp	*03:01:01-03:01:03, 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, 104:01, 105:01, 108:01, 111:01, 116:01, 119:01, 122:01, 124:01, 129:01, 130:01, 132:01, 143:01, 144:01, 153:01, 164:01
	165 bp		*99:01
	210 bp		*127:01
17	260 bp	515 bp	*03:01:01-03:01:03, 06:01, 09:01:01-09:01:02, 10:01, 11:01:01-11:01:02, 13:01:01-13:01:02, 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, 136:01, 137:01, 142:01, 156:01, 157:01, 167:01, 168:01
18	180 bp	430 bp	*03:01:01-03:01:03, 06:01, 09:01:01-09:01:02, 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, 156:01, 157:01, 161:01N, 164:01, 168:01

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19	200 bp	430 bp	*03:01:01-03:01:03, 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, 136:01, 142:01, 161:01N, 164:01, 167:01
20	235 bp	515 bp	*03:01:01-03:01:03, 09:01:01-09:01:02, 10:01, 13:01:01-13:01:02, 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, 142:01, 157:01, 160:01, 167:01
21 ⁴	100 bp	430 bp	*03:01:01-03:01:03, 09:01:01-09:01:02, 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, 157:01, 166:01
22	185 bp	430 bp	*04:01:01:01-04:01:06, 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, 149:01, 158:01
23 ⁷	145 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, 135:01, 140:01
24	210 bp 195 bp 265 bp	515 bp	*127:01 *101:01 *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, 102:01, 103:01, 106:01, 135:01, 140:01, 147:01, 150:01, 152:01, 165:01, 166:01
25	190 bp 265 bp	515 bp	*05:01:01-05:01:02, 21:01, 22:01, 36:01, 38:01, 44:01, 58:01, 63:01, 97:01, 114:01, 135:01, 140:01 *70:01
26 ^{4,5}	75 bp 205 bp	515 bp	*06:01, 09:01:01-09:01:02, 17:01, 29:01, 44:01, 46:01, 64:01N, 86:01, 88:01, 101:01, 131:01, 152:01, 156:01, 157:01, 161:01N, 166:01, 168:01 *123:01
27 ^{4,5}	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, 152:01, 156:01, 161:01N, 164:01, 166:01, 168:01
28	200 bp	430 bp	*09:01:01-09:01:02, 10:01, 13:01:01-13:01:02, 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, 125:01, 129:01, 131:01, 132:01, 133:01, 137:01, 156:01, 157:01, 160:01, 168:01 *119:01
29 ⁴	260 bp 105 bp 220 bp	515 bp	*141:01 *09:01:01-09:01:02, 10:01, 17:01, 30:01, 54:01, 55:01, 58:01, 86:01, 113:01, 131:01, 137:01, 156:01, 157:01, 167:01, 168:01
30	185 bp	430 bp	*09:01:01-09:01:02, 14:01, 17:01, 35:01:01, 76:01, 86:01, 91:01, 98:01, 119:01, 131:01, 156:01, 157:01, 168:01
31 ^{4,6}	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, 13:01:01-13:01:02, 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, 135:01, 136:01, 137:01, 140:01, 142:01, 147:01, 150:01, 159:01N, 162:01, 165:01, 167:01
32 ^{4,7}	75 bp 200 bp	430 bp	*78:01 *11:01:01-11:01:02, 130:01, 147:01

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33	140 bp 205 bp	430 bp	*13:01:01-13:01:02, 33:01, 81:01, 107:01, 110:01, 117:01, 133:01, 156:01, 160:01 *123:01
34	210 bp	430 bp	*14:01, 45:01, 67:01, 76:01, 91:01, 119:01, 167:01
35	195 bp	430 bp	*15:01, 74:01
36	260 bp	515 bp	*15:01, 18:01, 28:01, 34:01, 40:01, 53:01, 62:01, 139:01
37	185 bp	430 bp	*15:01, 28:01, 40:01, 53:01, 74:01, 139:01
38⁴	95 bp	515 bp	*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, 138:01
39	210 bp	515 bp	*28:01, 31:01, 34:01, 57:01, 59:01, 72:01, 73:01, 95:01, 102:01, 108:01, 139:01, 147:01, 152:01, 166:01
40⁵	180 bp	430 bp	*30:01, 54:01
41⁴	70 bp 200 bp 225 bp 250 bp 275 bp	515 bp	*77:01 *154:01N *31:01, 34:01, 94:01, 154:01N *31:01, 34:01, 94:01, 134:01 *134:01
42⁷	140 bp 185 bp 245 bp 285 bp	430 bp	*97:01 *32:01 *128:01 *82:01
43⁵	190 bp	430 bp	*34:01, 62:01
44^{4,7}	110 bp 185 bp 245 bp 270 bp	430 bp	*118:01 *111:01, 118:01, 120:01N *38:01 *64:01N
45⁴	120 bp 190 bp 245 bp	430 bp	*46:01, 80:01, 86:01, 108:01, 164:01 *39:01, 49:01, 96:01, 117:01, 158:01 *115:01
46⁴	70 bp 205 bp	430 bp	*41:01:01-41:01:02, 60:01, 69:01, 83:01, 136:01 *41:01:01-41:01:02, 60:01 83:01, 96:01, 147:01
47⁵	165 bp 215 bp	430 bp	*44:01, 114:01 *140:01
48⁴	115 bp 210 bp 280 bp	430 bp	*56:01, 66:01, 76:01, 92:01, 110:01, 125:01, 156:01 *61:01N *85:01
49⁴	95 bp 205 bp	430 bp	*149:01 *143:01
50	155 bp	430 bp	*144:01, 146:01
51	170 bp	430 bp	*145:01
52	130 bp 225 bp	430 bp	*151:01 *165:01
53⁴	90 bp 200 bp	430 bp	*157:01 *153:01, 163:01
54⁴	125 bp 185 bp 210 bp	430 bp	*161:01N *160:01 *159:01N
55	135 bp	430 bp	*155:01
56	180 bp	430 bp	*84:01, 148:01

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57⁸	255 bp	430 bp	*04:02:01:01-04:02:01:02, 08:01 [?] , 09:01:02 [?] , 11:01:02 [?] , 20:01:02 [?] , 22:01 [?] , 24:01 [?] , 25:01 [?] , 26:01:01 [?] , 29:01 [?] , 31:01 [?] , 32:01 [?] , 34:01 [?] , 35:01:01 [?] , 36:01 [?] , 37:01 [?] , 38:01 [?] , 40:01 [?] , 41:01:01 [?] -41:01:02 [?] , 44:01 [?] , 46:01 [?] , 47:01 [?] , 48:01 [?] , 49:01 [?] , 51:01 [?] , 52:01 [?] , 53:01 [?] , 54:01 [?] , 56:01 [?] , 57:01 [?] , 58:01 [?] , 59:01 [?] , 60:01 [?] , 61:01N [?] , 62:01 [?] , 63:01 [?] , 64:01N [?] , 65:01 [?] , 66:01 [?] , 67:01 [?] , 68:01 [?] , 69:01 [?] , 70:01 [?] , 71:01 [?] , 72:01 [?] , 73:01 [?] , 74:01 [?] , 75:01 [?] , 76:01 [?] , 77:01 [?] , 78:01 [?] , 79:01 [?] , 80:01 [?] , 81:01 [?] , 82:01 [?] , 83:01 [?] , 84:01 [?] , 86:01 [?] , 87:01 [?] , 89:01 [?] , 90:01 [?] , 91:01 [?] , 92:01 [?] , 93:01 [?] , 94:01 [?] , 95:01 [?] , 96:01 [?] , 97:01 [?] , 98:01 [?] , 99:01 [?] , 100:01 [?] , 101:01 [?] , 102:01 [?] , 103:01 [?] , 108:01 [?] , 109:01 [?] , 110:01 [?] , 111:01 [?] , 112:01 [?] , 113:01 [?] , 114:01 [?] , 115:01 [?] , 116:01 [?] , 117:01 [?] , 118:01 [?] , 119:01 [?] , 120:01N [?] , 122:01 [?] , 125:01 [?] , 126:01 [?] , 127:01 [?] , 128:01 [?] , 129:01 [?] , 130:01 [?] , 136:01 [?] , 138:01 [?] , 139:01 [?] , 140:01 [?] , 142:01 [?] , 143:01 [?] , 144:01 [?] , 145:01 [?] , 146:01 [?] , 147:01 [?] , 148:01 [?] , 149:01 [?] , 150:01 [?] , 151:01 [?] , 152:01 [?] , 153:01 [?] , 154:01N [?] , 155:01 [?] , 156:01 [?] , 157:01 [?] , 158:01 [?] , 159:01N [?] , 160:01 [?] , 161:01N [?] , 163:01 [?] , 164:01 [?] , 165:01 [?] , 166:01 [?] , 167:01 [?]
58^{4,5,9}	95 bp	430 bp	*08:01 [?] , 09:01:02 [?] , 11:01:02 [?] , 13:01:02 [?] , 20:01:01 [?] -20:01:02 [?] , 22:01 [?] , 23:01 [?] , 24:01 [?] , 25:01 [?] , 26:01:01 [?] , 28:01 [?] , 29:01 [?] , 30:01 [?] , 31:01 [?] , 32:01 [?] , 33:01 [?] , 34:01 [?] , 35:01:01 [?] -35:01:02 [?] , 36:01 [?] , 37:01 [?] , 38:01 [?] , 40:01 [?] , 41:01:01 [?] -41:01:02 [?] , 44:01 [?] , 45:01 [?] , 46:01 [?] , 47:01 [?] , 48:01 [?] , 49:01 [?] , 50:01 [?] , 51:01 [?] , 52:01 [?] , 53:01 [?] , 54:01 [?] , 55:01 [?] , 56:01 [?] , 57:01 [?] , 58:01 [?] , 59:01 [?] , 60:01 [?] , 61:01N [?] , 62:01 [?] , 63:01 [?] , 64:01N [?] , 65:01 [?] , 66:01 [?] , 67:01 [?] , 68:01 [?] , 69:01 [?] , 70:01 [?] , 71:01 [?] , 72:01 [?] , 73:01 [?] , 74:01 [?] , 75:01 [?] , 76:01 [?] , 77:01 [?] , 78:01 [?] , 79:01 [?] , 80:01 [?] , 81:01 [?] , 82:01 [?] , 83:01 [?] , 84:01 [?] , 85:01 [?] , 86:01 [?] , 87:01 [?] , 88:01 [?] , 89:01 [?] , 90:01 [?] , 91:01 [?] , 92:01 [?] , 93:01 [?] , 94:01 [?] , 95:01 [?] , 96:01 [?] , 97:01 [?] , 98:01 [?] , 99:01 [?] , 100:01 [?] , 101:01 [?] , 102:01 [?] , 103:01 [?] , 107:01 [?] , 108:01 [?] , 109:01 [?] , 110:01 [?] , 111:01 [?] , 112:01 [?] , 113:01 [?] , 114:01 [?] , 115:01 [?] , 116:01 [?] , 117:01 [?] , 118:01 [?] , 119:01 [?] , 120:01N [?] , 121:01 [?] , 122:01 [?] , 123:01 [?] , 124:01 [?] , 125:01 [?] , 126:01 [?] , 127:01 [?] , 128:01 [?] , 129:01 [?] , 130:01 [?] , 132:01 [?] , 133:01 [?] , 134:01 [?] , 135:01 [?] , 136:01 [?] , 137:01 [?] , 138:01 [?] , 139:01 [?] , 140:01 [?] , 141:01 [?] , 142:01 [?] , 143:01 [?] , 144:01 [?] , 145:01 [?] , 146:01 [?] , 147:01 [?] , 148:01 [?] , 149:01 [?] , 150:01 [?] , 151:01 [?] , 152:01 [?] , 153:01 [?] , 154:01N [?] , 155:01 [?] , 156:01 [?] , 157:01 [?] , 158:01 [?] , 159:01N [?] , 160:01 [?] , 161:01N [?] , 162:01 [?] , 163:01 [?] , 164:01 [?] , 165:01 [?] , 166:01 [?] , 167:01 [?] , 168:01 [?]
59^{4,10}	65 bp	430 bp	*05:01:01-05:01:02, 08:01 [?] , 09:01:02 [?] , 11:01:02 [?] , 13:01:02 [?] , 19:01, 20:01:01 [?] -20:01:02 [?] , 22:01 [?] , 23:01 [?] , 24:01 [?] , 25:01 [?] , 26:01:01 [?] , 28:01 [?] , 29:01 [?] , 30:01 [?] , 31:01 [?] , 32:01 [?] , 33:01 [?] , 34:01 [?] , 35:01:01 [?] -35:01:02 [?] , 36:01 [?] , 37:01 [?] , 38:01 [?] , 40:01 [?] , 41:01:01 [?] -41:01:02 [?] , 44:01 [?] , 45:01 [?] , 46:01 [?] , 47:01 [?] , 48:01 [?] , 49:01 [?] , 50:01 [?] , 51:01 [?] , 52:01 [?] , 53:01 [?] , 54:01 [?] , 55:01 [?] , 56:01 [?] , 57:01 [?] , 58:01 [?] , 59:01 [?] , 60:01 [?] , 61:01N [?] , 62:01 [?] , 63:01 [?] , 64:01N [?] , 65:01 [?] , 66:01 [?] , 67:01 [?] , 68:01 [?] , 69:01 [?] , 70:01 [?] , 71:01 [?] , 72:01 [?] , 73:01 [?] , 74:01 [?] , 75:01 [?] , 76:01 [?] , 77:01 [?] , 78:01 [?] , 79:01 [?] , 80:01 [?] , 81:01 [?] , 82:01 [?] , 83:01 [?] , 84:01 [?] , 85:01 [?] , 86:01 [?] , 87:01 [?] , 88:01 [?] , 89:01 [?] , 90:01 [?] , 91:01 [?] , 92:01 [?] , 93:01 [?] , 94:01 [?] , 95:01 [?] , 96:01 [?] , 97:01 [?] , 98:01 [?] , 99:01 [?] , 100:01 [?] , 101:01 [?] , 102:01 [?] , 103:01 [?] , 104:01, 108:01 [?] , 109:01 [?] , 110:01 [?] , 111:01 [?] , 112:01 [?] , 113:01 [?] , 114:01 [?] , 115:01 [?] , 116:01 [?] , 117:01 [?] , 118:01 [?] , 119:01 [?] , 120:01N [?] , 121:01 [?] , 122:01 [?] , 123:01 [?] , 124:01 [?] , 125:01 [?] , 126:01 [?] , 127:01 [?] , 128:01 [?] , 129:01 [?] , 130:01 [?] , 132:01 [?] , 133:01 [?] , 134:01 [?] , 136:01 [?] , 137:01 [?] , 139:01 [?] , 140:01 [?] , 141:01 [?] , 142:01 [?] , 143:01 [?] , 144:01 [?] , 145:01 [?] , 146:01 [?] , 147:01 [?] , 148:01 [?] , 149:01 [?] , 150:01 [?] , 151:01 [?] , 152:01 [?] , 153:01 [?] , 154:01N [?] , 155:01 [?] , 156:01 [?] , 157:01 [?] , 158:01 [?] , 159:01N [?] , 160:01 [?]

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60¹¹	255 bp	430 bp	161:01N [?] , 163:01 [?] , 164:01 [?] , 165:01 [?] , 166:01 [?] , 167:01 [?] , 168:01 [?] *02:01:02-02:02, 04:01:01:01-04:01:07, 08:01 [?] , 09:01:02 [?] , 11:01:02 [?] , 13:01:02 [?] , 17:01, 22:01 [?] , 23:01, 24:01 [?] , 25:01 [?] , 26:01:01 [?] , 28:01, 29:01 [?] , 30:01, 31:01 [?] , 32:01 [?] , 33:01, 34:01 [?] , 35:01:01 [?] , 36:01 [?] , 37:01 [?] , 38:01 [?] , 39:01, 40:01 [?] , 41:01:01 [?] - 41:01:02 [?] , 44:01 [?] , 46:01 [?] , 47:01 [?] , 48:01 [?] , 49:01 [?] , 51:01 [?] , 52:01 [?] , 53:01 [?] , 54:01 [?] , 55:01, 56:01 [?] , 57:01 [?] , 58:01 [?] , 60:01 [?] , 61:01N [?] , 62:01 [?] , 63:01 [?] , 64:01N [?] , 65:01 [?] , 66:01 [?] , 67:01 [?] , 68:01 [?] , 69:01 [?] , 70:01 [?] , 71:01 [?] , 72:01 [?] , 73:01 [?] , 74:01 [?] , 75:01 [?] , 76:01 [?] , 77:01 [?] , 78:01 [?] , 79:01 [?] , 80:01 [?] , 81:01 [?] , 82:01 [?] , 83:01 [?] , 84:01 [?] , 86:01 [?] , 87:01 [?] , 89:01 [?] , 90:01 [?] , 91:01 [?] , 92:01 [?] , 93:01 [?] , 94:01 [?] , 95:01 [?] , 96:01 [?] , 97:01 [?] , 98:01 [?] , 99:01 [?] , 100:01 [?] , 101:01 [?] , 102:01 [?] , 103:01 [?] , 105:01, 106:01, 108:01 [?] , 109:01 [?] , 110:01 [?] , 111:01 [?] , 112:01 [?] , 113:01 [?] , 114:01 [?] , 115:01 [?] , 116:01 [?] , 117:01 [?] , 118:01 [?] , 119:01 [?] , 120:01N [?] , 121:01, 122:01 [?] , 123:01, 124:01, 125:01 [?] , 127:01 [?] , 128:01 [?] , 129:01 [?] , 130:01 [?] , 133:01, 134:01, 136:01 [?] , 137:01, 139:01 [?] , 140:01 [?] , 141:01, 142:01 [?] , 143:01 [?] , 144:01 [?] , 145:01 [?] , 146:01 [?] , 147:01 [?] , 148:01 [?] , 149:01 [?] , 150:01 [?] , 151:01 [?] , 152:01 [?] , 153:01 [?] , 154:01N [?] , 155:01 [?] , 156:01 [?] , 157:01 [?] , 158:01 [?] , 159:01N [?] , 160:01 [?] , 161:01N [?] , 162:01, 163:01 [?] , 164:01 [?] , 165:01 [?] , 166:01 [?] , 167:01 [?] , 168:01
61	145 bp	430 bp	*168:01
62¹²	260 bp	515 bp	*01:01:01-01:01:03, 03:01:01-03:01:03, 05:01:01-05:01:02, 06:01, 08:01 [?] , 09:01:01-09:01:02, 10:01, 11:01:01-11:01:02, 13:01:01- 13:01:02, 14:01, 15:01 ^w , 16:01, 18:01, 19:01, 20:01:01-20:01:02, 21:01, 22:01 [?] , 24:01 [?] , 25:01 [?] , 26:01:01 [?] , 26:01:02, 27:01, 29:01 [?] , 31:01 [?] , 32:01 [?] , 34:01 [?] , 35:01:01-35:01:02, 36:01 [?] , 37:01 [?] , 38:01 [?] , 40:01 [?] , 41:01:01 [?] -41:01:02 [?] , 44:01 [?] , 45:01, 46:01 [?] , 47:01 [?] , 48:01 [?] , 49:01 [?] , 50:01, 51:01 [?] , 52:01 [?] , 53:01 [?] , 54:01 [?] , 56:01 [?] , 57:01 [?] , 58:01 [?] , 60:01 [?] , 61:01N [?] , 62:01 [?] , 63:01 [?] , 64:01N [?] , 65:01 [?] , 66:01 [?] , 67:01 [?] , 68:01 [?] , 69:01 [?] , 70:01 [?] , 71:01 [?] , 72:01 [?] , 73:01 [?] , 74:01 [?] , 75:01 [?] , 76:01 [?] , 77:01 [?] , 78:01 [?] , 79:01 [?] , 80:01 [?] , 81:01 [?] , 82:01 [?] , 83:01 [?] , 84:01 [?] , 85:01, 86:01 [?] , 87:01 [?] , 88:01, 89:01 [?] , 90:01 [?] , 91:01 [?] , 92:01 [?] , 93:01 [?] , 94:01 [?] , 95:01 [?] , 96:01 [?] , 97:01 [?] , 98:01 [?] , 99:01 [?] , 100:01 [?] , 101:01 [?] , 102:01 [?] , 103:01 [?] , 104:01, 107:01, 108:01 [?] , 109:01 [?] , 110:01 [?] , 111:01 [?] , 112:01 [?] , 113:01 [?] , 114:01 [?] , 115:01 [?] , 116:01 [?] , 117:01 [?] , 118:01 [?] , 119:01 [?] , 120:01N [?] , 122:01 [?] , 125:01 [?] , 127:01 [?] , 128:01 [?] , 129:01 [?] , 130:01 [?] , 131:01, 132:01, 135:01, 136:01 [?] , 139:01 [?] , 140:01 [?] , 142:01 [?] , 143:01 [?] , 144:01 [?] , 145:01 [?] , 146:01 [?] , 147:01 [?] , 148:01 [?] , 149:01 [?] , 150:01 [?] , 151:01 [?] , 152:01 [?] , 153:01 [?] , 154:01N [?] , 155:01 [?] , 156:01 [?] , 157:01 [?] , 158:01 [?] , 159:01N [?] , 160:01 [?] , 161:01N [?] , 163:01 [?] , 164:01 [?] , 165:01 [?] , 166:01 [?] , 167:01 [?]
63¹³			Negative Control

¹ Alleles are assigned by the presence of specific PCR product(s). However, the sizes of the specific PCR products may be helpful in the interpretation of DPB1 SSP typings.

When the primers in a primer mix can give rise to HLA-specific PCR products of more than one length this is indicated if the size difference is more than 20 base pairs. Size differences of 20 base pairs or less are not given. For high resolution SSP kits, the alleles listed are specified according to amplicon length. 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.

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

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

²The internal positive control primer pairs amplify segments of the human growth hormone gene. The internal positive control bands are 430 or 515 base pairs respectively, well distribution as outlined in the table. Well number 1 contains the longer, 515 bp, internal positive control band. The well distribution of the internal controls can help in orientation of the kit on gel photo, as well as allow for kit identification. In the presence of a specific amplification the intensity of the control band often decreases.

³For several DPB1 alleles 1st and/or 3rd exon(s) and beyond, as well as intron nucleotide sequences, are not available and thus the primer pairs in primer mixes 57, 58, 59, 60 and 62 may amplify other DPB1 alleles. 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. Assumption is made that unknown sequences in these regions are conserved within allelic groups.

⁴HLA-specific PCR products shorter than 125 base pairs have a lower intensity and are less sharp than longer PCR products.

⁵Primer mixes 3, 9, 16, 26, 27, 40, 43, 47 and 58 may give rise to a lower yield of HLA-specific PCR product than the other DPB1 primer mixes.

⁶Primer mixes 3, 16 and 31 have a tendency to giving rise to primer oligomer formation.

⁷Primer mixes 23, 32, 42 and 44 may have tendencies of unspecific amplifications.

⁸The 3rd exon of many DPB1 alleles is not sequenced and thus the primer pair in primer mix 57 matching the DPB1*04:02:01-04:02:01:02, 59:01, 126:01 and 138:01 sequence motif in the 3rd exon may amplify other DPB1 alleles.

⁹The 1st exon of most DPB1 alleles is not sequenced and thus the primer pair in primer mix 58 matching the DPB1*107:01 sequence motif in the 1st exon may amplify other DPB1 alleles.

¹⁰The 4th exon of most DPB1 alleles is not sequenced and thus the primer pair in primer mix 59 matching the DPB1*05:01:01-05:01:02, 19:01 and 104:01 sequence motif in the 4th exon may amplify other DPB1 alleles.

¹¹The 3rd exon of many DPB1 alleles is not sequenced and thus the primer pair in primer mix 60 matching the DPB1*02:01:02-02:02, 04:01:01-04:01:07, 17:01, 23:01, 28:01, 30:01, 33:01, 39:01, 55:01, 105:01, 106:01, 121:01, 123:01, 124:01, 133:01, 134:01, 137:01, 141:01, 162:01 and 168:01 sequence motif in the 3rd exon may amplify other DPB1 alleles.

¹²The 3rd exon of many DPB1 alleles is not sequenced and thus the primer pair in primer mix 62 matching the DPB1*01:01:01-01:01:03, 03:01:01-03:01:03, 05:01:01-05:01:02, 06:01, 09:01:01-09:01:02, 10:01, 11:01:01-11:01:02, 13:01:01-13:01:02, 14:01, 15:01^w, 16:01, 18:01, 19:01, 20:01:01-20:01:02, 21:01, 26:01:02, 27:01, 35:01:01-35:01:02, 45:01, 50:01, 85:01, 88:01, 104:01, 107:01, 131:01, 132:01 and 135:01 sequence motif in the 3rd exon may amplify other DPB1 alleles.

¹³Primer mix 63 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.

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PRIMER SPECIFICATION

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec. PCR product	245	220	100	140	235	165	160	210	165	220	185	80
Length of int. pos. control ¹	515	515	430	430	515	430	430	515	430	515	515	515
5'-primer(s) ²	8(112) 5'-TgT ^{3'}	8(112) 5'-TgT ^{3'}	36(194) 5'-CgC ^{3'}	36(194) 5'-CgC ^{3'}	11(119) 5'-ggg ^{3'}	35(191) 5'-gTA ^{3'}	36(194) 5'-CgC ^{3'}	9(113) 5'-TTT ^{3'}	34(190) 5'-AgC ^{3'}	9(113) 5'-TTT ^{3'}	35(191) 5'-gTT ^{3'}	55(252) 5'-gAT ^{3'}
			36(194) 5'-CgC ^{3'}	36(194) 5'-CgC ^{3'}	11(119) 5'-ggg ^{3'}	35(191) 5'-gTA ^{3'}	36(194) 5'-CgC ^{3'}		36(194) 5'-CgC ^{3'}			
3'-primer(s) ³	76(315) 5'-CAT ^{3'}	68(292) 5'-CTT ^{3'}	55(251) 5'-CAg ^{3'}	68(292) 5'-CTT ^{3'}	76(315) 5'-CAT ^{3'}	76(315) 5'-CAT ^{3'}	76(315) 5'-CAT ^{3'}	64(280) 5'-gAT ^{3'}	75(313) 5'-TAT ^{3'}	68(292) 5'-CTC ^{3'}	83(337) 5'-gTT ^{3'}	68(292) 5'-CTC ^{3'}
				68(292) 5'-CTT ^{3'}				65(281) 5'-ggT ^{3'}	75(313) 5'-CAT ^{3'}		84(338) 5'-CgC ^{3'}	

Well No.	13	14	15	16	17	18	19	20	21	22	23	24
Length of spec. PCR product	180	105	200	80	260	180	200	235	100	185	145	195
		175		165							210	265
				210								
Length of int. pos. control ¹	430	430	430	430	515	430	430	515	430	430	430	515
5'-primer(s) ²	9(113) 5'-TTT ^{3'}	11(119) 5'-gTT ^{3'}	27(169) 5'-gAg ^{3'}	11(121) 5'-gAT ^{3'}	11(119) 5'-gTT ^{3'}	11(119) 5'-gTT ^{3'}	11(119) 5'-gTT ^{3'}	11(119) 5'-gTT ^{3'}	57(258) 5'-gAC ^{3'}	36(194) 5'-CgC ^{3'}	11(121) 5'-gAT ^{3'}	9(113) 5'-TTT ^{3'}
		11(119) 5'-gTT ^{3'}	34(190) 5'-AgC ^{3'}	27(169) 5'-gAg ^{3'}	11(119) 5'-gTT ^{3'}	11(119) 5'-gTT ^{3'}	11(119) 5'-gTT ^{3'}	11(119) 5'-gTT ^{3'}		36(194) 5'-CgC ^{3'}	34(190) 5'-AgC ^{3'}	
		34(190) 5'-AgC ^{3'}		56(254) 5'-TgA ^{3'}								
3'-primer(s) ³	55(252) 5'-gCC ^{3'}	55(252) 5'-gCC ^{3'}	84(338) 5'-CgC ^{3'}	68(292) 5'-CTT ^{3'}	84(338) 5'-CgT ^{3'}	57(258) 5'-TAG ^{3'}	64(280) 5'-gAg ^{3'}	76(315) 5'-CAT ^{3'}	76(315) 5'-CAT ^{3'}	84(338) 5'-CgC ^{3'}	68(292) 5'-CTT ^{3'}	59(265) 5'-gTg ^{3'}
											68(292) 5'-CTT ^{3'}	84(338) 5'-CgT ^{3'}

Well No.	25	26	27	28	29	30	31	32	33	34	35	36
Length of spec. PCR product	190	75	95	200	105	185	120	75	140	210	195	260
	265	205		260	220			200	205			
Length of int. pos. control ¹	515	515	430	430	515	430	430	430	430	430	430	515
5'-primer(s) ²	8(112) 5'-Tgg ^{3'}	14(130) 5'-AAg ^{3'}	57(258) 5'-gAC ^{3'}	11(119) 5'-gTT ^{3'}	8(112) 5'-TgC ^{3'}	8(112) 5'-TgC ^{3'}	57(258) 5'-gAg ^{3'}	31(181) 5'-ACT ^{3'}	14(130) 5'-AAg ^{3'}	8(112) 5'-TgC ^{3'}	32(184) 5'-ggC ^{3'}	11(119) 5'-ggg ^{3'}
	34(190) 5'-AgC ^{3'}	57(258) 5'-gAC ^{3'}		11(119) 5'-gTT ^{3'}	106(406) 5'-CCT ^{3'}			32(184) 5'-ggC ^{3'}	36(194) 5'-CgC ^{3'}		32(184) 5'-ggC ^{3'}	11(119) 5'-ggg ^{3'}
		59(265) 5'-ggC ^{3'}						32(184) 5'-ggC ^{3'}	36(194) 5'-CgC ^{3'}			
								73(305) 5'-gCT ^{3'}				
3'-primer(s) ³	84(338) 5'-CgT ^{3'}	68(292) 5'-CTC ^{3'}	75(313) 5'-TAT ^{3'}	64(280) 5'-gAT ^{3'}	68(292) 5'-CTC ^{3'}	57(258) 5'-TAG ^{3'}	84(338) 5'-CgT ^{3'}	84(338) 5'-CgT ^{3'}	68(292) 5'-CTC ^{3'}	64(280) 5'-gAg ^{3'}	84(338) 5'-CgA ^{3'}	84(338) 5'-CgA ^{3'}
			75(313) 5'-CAT ^{3'}	83(337) 5'-gTT ^{3'}	128(470) 5'-ATT ^{3'}							

101.311-24/04 – including *Taq* pol., IFU-01
101.311-24u/04u – without *Taq* pol., IFU-02

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Lot No.: **45V**

Lot-specific information

Well No.	37	38	39	40	41	42	43	44	45	46	47	48
Length of spec. PCR product	185	95	210	180	70 200 225 250 275	140 185 245 285	190	110 185 245 270	120 190 245	70 205	165 215	115 210 280
Length of int. pos. control ¹	430	515	515	430	515	430	430	430	430	430	430	430
5'-primer(s) ²	36(194) 5'-CgC 3'	34(190) 5'-AgC 3'	9(113) 5'-TTT 3'	8(112) 5'-TgC 3'	1 st I 9(113) 5'-CAT 3'	9(113) 5'-TTT 3'	34(190) 5'-AgC 3'	7(108) 5'-TAA 3'	16(136) 5'-ACA 3'	9(113) 5'-TTT 3'	34(190) 5'-AgC 3'	11(119) 5'-gTT 3'
	36(194) 5'-CgC 3'	36(194) 5'-CgT 3'			9(113) 5'-TTT 3'			9(115) 5'-TCT 3'	35(191) 5'-gTA 3'	56(254) 5'-TgA 3'		11(119) 5'-gTT 3'
		38(202) 5'-TCT 3'						16(136) 5'-ACC 3'	57(258) 5'-gAC 3'			
								32(182) 5'-CCC 3'				
3'-primer(s) ³	84(338) 5'-CgA 3'	55(251) 5'-CAg 3'	64(280) 5'-gAg 3'	55(252) 5'-gCC 3'	12(122) 5'-gCA 3'	42(214) 5'-CCA 3'	84(338) 5'-CgA 3'	55(251) 5'-CAg 3'	84(338) 5'-CgC 3'	63(277) 5'-gTg 3'	76(315) 5'-CAT 3'	35(191) 5'-CgA 3'
					61(271) 5'-CTA 3'	57(257) 5'-ACA 3'		84(338) 5'-CgT 3'		64(280) 5'-gAA 3'	92(362) 5'-CTg 3'	66(286) 5'-CTA 3'
					69(295) 5'-CCA 3'	76(316) 5'-gCg 3'				65(281) 5'-ggT 3'		91(359) 5'-ggT 3'
					71(301) 5'-CAA 3'	91(359) 5'-ggT 3'				69(293) 5'-gCC 3'		
					78(320) 5'-gTg 3'							
Well No.	37	38	39	40	41	42	43	44	45	46	47	48

Well No.	49	50	51	52	53	54	55	56	57	58	59	60
Length of spec. PCR product	95	155	170	130	90 200	125 185	135	180	255	95	65	255
Length of int. pos. control ¹	430	430	430	430	430	430	430	430	430	430	430	430
5'-primer(s) ²	9(114) 5'-TTA 3'	23(155) 5'-gCA 3'	25(163) 5'-TgC 3'	7(107) 5'-TTg 3'	36(194) 5'-CgT 3'	36(194) 5'-CgC 3'	37(197) 5'-gCT 3'	9(113) 5'-TTT 3'	106(406) 5'-CCT 3'	-22(24) 5'-gCA 3'	196(675) 5'-AAg 3'	106(406) 5'-CCT 3'
	46(226) 5'-ggA 3'	29(173) 5'-CAg 3'		39(204) 5'-gAA 3'		36(194) 5'-CgC 3'						
						57(258) 5'-gAC 3'						
3'-primer(s) ³	64(280) 5'-gAT 3'	64(280) 5'-gAT 3'	68(292) 5'-CTC 3'	68(292) 5'-CTC 3'	53(245) 5'-gCT 3'	84(340) 5'-CTg 3'	68(292) 5'-CTC 3'	55(252) 5'-TCC 3'	177(619) 5'-CAT 3'	-4(76) 5'-CAC 3'	204(700) 5'-CAT 3'	177(619) 5'-CAg 3'
		68(292) 5'-CTC 3'			89(355) 5'-CTC 3'	84(340) 5'-CTA 3'						
					90(358) 5'-gCC 3'	91(361) 5'-TCA 3'						
Well No.	49	50	51	52	53	54	55	56	57	58	59	60

101.311-24/04 – including *Taq* pol., IFU-01
101.311-24u/04u – without *Taq* pol., IFU-02

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Lot No.: **45V**

Lot-specific information

Well No.	61	62
Length of spec. PCR product	145	260
Length of int. pos. control ¹	430	515
5'-primer(s) ²	143(517)	106(406)
	5' -CCT 3'	5' -CCC 3'
3'-primer(s) ³	177(619)	179(624)
	5' -CAg 3'	5' -CTg 3'
Well No.	61	62

¹The internal positive control primer pairs amplify segments of the human growth hormone gene. The internal positive control bands are 430 or 515 base pairs respectively, well distribution as outlined in the table. Well number 1 contains the longer, 515 bp, internal positive control band. The well distribution of the internal controls can help in orientation of the kit on gel photo, as well as allow for kit identification. In the presence of a specific amplification the intensity of the control band often decreases.

²The nucleotide position matching the specificity-determining 3'-end of the primer is given. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

³The nucleotide position matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

101.311-24/04 – including *Taq* pol., IFU-01
101.311-24u/04u – without *Taq* pol., IFU-02

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Lot No.: **45V**

Lot-specific information

CELL LINE VALIDATION SHEET																				
DPB1 SSP kit²																				
				Well																
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
				201184901	201184902	201431903	201431904	201184905	201184906	201317607	201184908	201184909	201184910	201184911	201184912	201184913	201184914	201184915	201184916	
		IHWC cell line¹	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	-	-	+	+	-	-	-	+	+	+	+	-	-	-	-	-



101.311-24/04 – including *Taq* pol., IFU-01
101.311-24u/04u – without *Taq* pol., IFU-02

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Lot No.: **45V**

Lot-specific information

CELL LINE VALIDATION SHEET																				
DPB1 SSP kit²																				
				Well																
				17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
				Lot No.:	201184917	201184918	201184919	201184920	201184921	201184922	201184923	201184924	201184925	201184926	201184927	201184928	201184929	201184930	201205331	201317632
IHC cell line ¹		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	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	

101.311-24/04 – including *Taq* pol., IFU-01
101.311-24u/04u – without *Taq* pol., IFU-02

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Lot No.: **45V**

Lot-specific information

CELL LINE VALIDATION SHEET																				
DPB1 SSP kit²																				
				Lot No.:	Well															
					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
					201317633	201184934	201184935	201184936	201431937	201317638	201184939	201431940	201431941	201317642	201431943	201294344	201184945	201431946	201431947	201184948
	IHWC cell line¹	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		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

101.311-24/04 – including *Taq* pol., IFU-01
101.311-24u/04u – without *Taq* pol., IFU-02

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Lot No.: **45V**

Lot-specific information

CELL LINE VALIDATION SHEET													
DPB1 SSP kit ²													
			Well ³										
				49	50	51	52	53	54	55	56	57	58
			Lot No.:										
			201431949										
			201431950										
			201431951										
			201431952										
			201431953										
			201431954										
			201431955										
			201431956										
			201431957										
			201431958										
			201431959										
			201431960										
			201431961										
			201431963										
	IHWC cell line ¹	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 OLG A	*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	- - - - - - - - - - - - - - - - + - - - - -										



101.311-24/04 – including *Taq* pol., IFU-01
101.311-24u/04u – without *Taq* pol., IFU-02

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Lot No.: 45V

Lot-specific information

¹The provided cell line HLA specificities are retrieved from the <http://www.ihwg.org/hla> web site. The specificity of an individual cell line may thus be subject to change.

²The specificity of each primer solution in the kit has been tested against 48 well characterized cell line DNAs and where applicable, additional cell line DNAs.

No DNAs carrying the alleles to be amplified by primer solutions 40 to 44, 47, 49 to 56 and 61 were available.

The specificities of the primers in primer solutions 40, 43 and 47 were tested by separately adding one 5'-primer, respectively one 3'-primer. In primer solutions 41, 42, 53, 54 and 56 it was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solutions 44, 49 to 52, 55 and 61 it was only possible to test the 3'-primers, the 5'-primers were not possible to test. In primer solutions 15, 16, 23, 25, 26, 32, 33 and 38 one or two 5'-primers were not possible to test. In primer solutions 8, 11, 24, 28, 29 and 46 to 48 one or three 3'-primers were not possible to test.

Additional primers in primer solutions 14, 38, 46 and 48 were tested by separately adding 5'-primers or 3'-primers.

³The DPB1:04:02 allele is not amplified by primer mix 57 in the 9275 (GU373), 9257 (32367), 9021 (RSH) and 9239 (SHJO) cell lines. For further details see the specificity table.

The DPB1:04:02 allele is not amplified by primer mix 58 in the 9275 (GU373), 9191 (CH1007) and 9302 (SSTO) cell lines. For further details see the specificity table.

The DPB1:04:02 allele is not amplified by primer mix 60 in the 9021 (RSH) and 9239 (SHJO) cell lines. For further details see the specificity table.

101.311-24/04 – including *Taq* pol., IFU-01
101.311-24u/04u – without *Taq* pol., IFU-02

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Lot No.: **45V**

Lot-specific information

101.311-24/04 – including *Taq* pol., IFU-01
101.311-24u/04u – without *Taq* pol., IFU-02

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Lot No.: **45V**

Lot-specific information

101.311-24/04 – including *Taq* pol., IFU-01
101.311-24u/04u – without *Taq* pol., IFU-02

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Lot No.: **45V**

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101.311-24/04 – including *Taq* pol., IFU-01
101.311-24u/04u – without *Taq* pol., IFU-02

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Lot No.: **45V**

Lot-specific information

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Fax: +46-8-717 88 18

E-mail: info-ssp@olerup.com

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

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Fax: +43-1-710 15 00 10

E-mail: support-at@olerup.com

Web page: <http://www.olerup.com>

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Web page: <http://www.olerup.com>

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