

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

Olerup SSP[®] HLA-B*51

Product number:	101.561-24/03 – including <i>Taq</i> pol. 101.561-24u/03u – without <i>Taq</i> pol.
Lot number:	7E5
Expiry date:	2019-08-01
Number of tests:	24 tests – Product No. 101.561-24/24u 3 tests – Product No. 101.561-03/03u
Number of wells per test:	82+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. 7E5.

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

CHANGES COMPARED TO THE PREVIOUS OLERUP SSP[®] HLA-B*51 Lot (0D3).

The HLA-B*51 kit is updated for new alleles to enable separation of:

- Confirmed¹ alleles as listed in the IMGT/HLA database
- Polymorphisms in exons outside of the region encoding the peptide binding domain
- Null and Alternatively expressed alleles

Three wells have been added to HLA-B*51, wells **81 to 83**.

¹As described in section Uniquely Identified Alleles.

The HLA-B*51 primer set, specificity and interpretation tables have been updated for the HLA-B alleles described since the previous *Olerup SSP[®]* HLA-B*51 lot was made (**Lot No. 0D3**). The kit design is based on IMGT/HLA database 3.25.0.

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.

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

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

Well	5'-primer	3'-primer	rationale
3	-	Modified	3'-primer modified for increased yield.
4	-	Modified	3'-primer modified for increased yield.
16	Modified	-	5'-primer modified for improved HLA-specific amplification.
31	Modified	Modified	5'-primer and 3'-primer modified for increased yield.
80	Added	Added	Negative Control moved to well 83, primer pair added for the B*51:148 allele.
81	New	New	New primer pairs added for the B*51:98N and B*51:148 alleles.
82	New	New	New primer pair added for the B*51:193 allele.
83	-	-	Negative Control added from well 80.

Change in revision R01 compared to R00:

1. Primer mix 36 does not amplify the B*07:120 and the B*40:150 alleles. This has been corrected in the Specificity and Interpretation Tables.

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

Well **83** contains Negative Control primer pairs, that will amplify more than 95% of the *Olerup SSP[®]* HLA Class I, DRB, DQB1, DPB1 and DQA1 amplicons as well as all the amplicons generated by the control primer pairs matching the human growth hormone gene.

HLA-specific PCR product sizes range from 75 to 200 base pairs.
The PCR product generated by the positive control primer pair is 430 base pairs.

Length of PCR product	105	200	105	80	75	80	85
5'-primer¹	164	340	440	45	45	43	36
	5'-CAC ^{3'}	5'-Agg ^{3'}	5'-TTA ^{3'}	5'-Tgg ^{3'}	5'-Tgg ^{3'}	5'-Tgg ^{3'}	5'-TAC ^{3'}
							36
							5'-TAT ^{3'}
3'-primer²	231	2nd I	507	59	58	57	47
	5'-TgC ^{3'}	5'-AAA ^{3'}	5'-TTg ^{3'}	5'-CTC ^{3'}	5'-ggC ^{3'}	5'-CTC ^{3'}	5'-ACA ^{3'}
							48
							5'-gCA ^{3'}
							48
							5'-gCC ^{3'}
							52
							5'-TgT ^{3'}
A*	+	+	+				
B*	+	+	+				
C*	+	+	+				
DRB1				+	+		
DRB3				+	+		
DRB5				+			
DQB1					+		
DPB1						+	
DQA1							+

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.

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

PRODUCT DESCRIPTION

HLA-B*51 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the B*51:01 to B*51:208 alleles.

PLATE LAYOUT

Each test consists of 83 PCR reactions in a 96 well PCR plate. Wells 84 to 96 are empty.

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

The 96 well cut PCR plate is marked with 'HLA-B*51' in silver/gray ink.

Well No. 1 is marked with the Lot No. '7E5'.

Wells 1 to 82 – HLA-B*51 high resolution primers.

Well 83 – 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 covered with a PCR-compatible foil.

INTERPRETATION

Due to the sharing of sequence motifs between HLA-B alleles, non-HLA-B*51 alleles will be amplified by primer mixes 1 to 3, 5 to 11, 14 to 32, 34 to 36, 38 to 41, 44, 46 to 50, 52 to 54, 56, 57, 60 to 65, 71 to 75, 79, 80 and 82. In addition, a few HLA-A and HLA-C alleles will be amplified by primer mixes 2, 3, 5, 7, 10, 16, 19, 24, 26, 27, 30 to 32, 34, 35, 38, 41, 44, 48, 50, 56, 61, 69, 74, 75 and 80.

For further details see Specificity Table.

UNIQUELY IDENTIFIED ALLELES

All the HLA-B*51 alleles, i.e. **B*51:01 to B*51:208**, recognized by the HLA Nomenclature Committee in July 2016^{1,2} will be amplified by the primers in the HLA-B*51 subtyping kit³.

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

The HLA-B*51 kit enables separation of the confirmed HLA-B*51 alleles as listed in the IMGT/HLA database. An HLA allele is listed as confirmed by IMGT/HLA if it has been sequenced by more than a single laboratory or from multiple sources. Current allele confirmation status for HLA-B*51 alleles is listed below.

The HLA-B*51 kit also enables identification of polymorphisms in exons outside of the region encoding the peptide binding domain and of null and alternatively expressed alleles.

The following HLA-B*51 alleles can be distinguished by the different sizes of the specific PCR product:

Alleles	Primer mix	Alleles	Primer mix
B*51:26, 51:185	20	B*51:70, 51:71	53
B*51:30, 51:142	25	B*51:74, 51:124	54
B*51:39, 51:126	27	B*51:75, 51:77	55
B*51:51, 51:76	44	B*51:83, 51:88	59
B*51:57, 51:123	46	B*51:84, 51:94	60
B*51:66, 51:67	64	B*51:86, 51:95	62
B*51:68, 51:72	51	B*51:127, 51:149N	73

The HLA-B*51 subtyping kit cannot distinguish following silent mutations: the B*51:01:01:01-51:01:01:02, 51:01:03-51:01:07, 51:01:10-51:01:14, 51:01:16-51:01:20, 51:01:22-51:01:24, 51:01:26-51:01:38, 51:01:41 and 51:01:44-51:01:52 alleles, the B*51:01:08, 51:01:15 and 51:01:43 alleles, the B*51:01:21 and 51:01:25 alleles, the B*51:01:42 and 51:01:53 alleles, the B*51:02:01 and 51:02:03-51:02:05 alleles, the B*51:06:01 and 51:06:03 alleles, the B*51:08:01-51:08:02 alleles, the B*51:09:01 and 51:09:03 alleles, the B*51:13:01-51:13:02 alleles, the B*51:24:01 and 51:24:05 alleles, the B*51:24:02-51:24:04 alleles, the B*51:56:02-51:56:03 alleles, the B*51:61:01-51:61:02 alleles, the B*51:92:01-51:92:02 or the B*51:158:01-51:158:02 alleles.

¹HLA-B alleles listed on the IMGT/HLA web page 2016-July-14, release 3.25.0, 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>.

³The B*51:119, 51:176 and 51:179 and the B*52:06:03 alleles will give rise to identical amplification patterns. These alleles can e.g. be distinguished by the HLA-B low resolution kit and/or the HLA-B*52 high resolution kit.

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

ALLELE CONFIRMATION STATUS

Allele	Status ¹	Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
B*51:01:01:01	Confirmed	B*51:01:50	Unconfirmed	B*51:34	Confirmed	B*51:81	Unconfirmed
B*51:01:01:02	Unconfirmed	B*51:01:51	Unconfirmed	B*51:35	Unconfirmed	B*51:82	Confirmed
B*51:01:02	Confirmed	B*51:01:52	Unconfirmed	B*51:36	Confirmed	B*51:83	Confirmed
B*51:01:03	Unconfirmed	B*51:01:53	Unconfirmed	B*51:37	Confirmed	B*51:84	Unconfirmed
B*51:01:04	Confirmed	B*51:02:01	Confirmed	B*51:38	Confirmed	B*51:85	Confirmed
B*51:01:05	Unconfirmed	B*51:02:02	Confirmed	B*51:39	Unconfirmed	B*51:86	Unconfirmed
B*51:01:06	Unconfirmed	B*51:02:03	Unconfirmed	B*51:40	Confirmed	B*51:87	Unconfirmed
B*51:01:07	Unconfirmed	B*51:02:04	Unconfirmed	B*51:41N	Unconfirmed	B*51:88	Unconfirmed
B*51:01:08	Unconfirmed	B*51:02:05	Confirmed	B*51:42	Unconfirmed	B*51:89	Unconfirmed
B*51:01:09	Confirmed	B*51:03	Unconfirmed	B*51:43	Confirmed	B*51:90	Confirmed
B*51:01:10	Confirmed	B*51:04	Unconfirmed	B*51:44N	Unconfirmed	B*51:91	Unconfirmed
B*51:01:11	Unconfirmed	B*51:05	Confirmed	B*51:45	Unconfirmed	B*51:92:01	Unconfirmed
B*51:01:12	Unconfirmed	B*51:06:01	Confirmed	B*51:46	Unconfirmed	B*51:92:02	Unconfirmed
B*51:01:13	Unconfirmed	B*51:06:02	Confirmed	B*51:48	Unconfirmed	B*51:93	Unconfirmed
B*51:01:14	Unconfirmed	B*51:06:03	Unconfirmed	B*51:49	Unconfirmed	B*51:94	Confirmed
B*51:01:15	Unconfirmed	B*51:07:01	Confirmed	B*51:50	Confirmed	B*51:95	Unconfirmed
B*51:01:16	Unconfirmed	B*51:07:02	Unconfirmed	B*51:51	Unconfirmed	B*51:96	Unconfirmed
B*51:01:17	Unconfirmed	B*51:08:01	Confirmed	B*51:52	Confirmed	B*51:97	Unconfirmed
B*51:01:18	Confirmed	B*51:08:02	Unconfirmed	B*51:53	Unconfirmed	B*51:98N	Unconfirmed
B*51:01:19	Confirmed	B*51:09:01	Confirmed	B*51:54	Unconfirmed	B*51:99	Unconfirmed
B*51:01:20	Confirmed	B*51:09:02	Confirmed	B*51:55	Confirmed	B*51:100	Confirmed
B*51:01:21	Confirmed	B*51:09:03	Unconfirmed	B*51:56:01	Confirmed	B*51:101	Unconfirmed
B*51:01:22	Unconfirmed	B*51:10	Confirmed	B*51:56:02	Unconfirmed	B*51:102	Unconfirmed
B*51:01:23	Unconfirmed	B*51:11N	Confirmed	B*51:56:03	Unconfirmed	B*51:103	Confirmed
B*51:01:24	Unconfirmed	B*51:12	Unconfirmed	B*51:57	Unconfirmed	B*51:104	Unconfirmed
B*51:01:25	Unconfirmed	B*51:13:01	Confirmed	B*51:58	Unconfirmed	B*51:105	Confirmed
B*51:01:26	Unconfirmed	B*51:13:02	Confirmed	B*51:59	Unconfirmed	B*51:106	Unconfirmed
B*51:01:27	Unconfirmed	B*51:14	Confirmed	B*51:60	Unconfirmed	B*51:107	Confirmed
B*51:01:28	Unconfirmed	B*51:15	Unconfirmed	B*51:61:01	Confirmed	B*51:108	Confirmed
B*51:01:29	Confirmed	B*51:16	Confirmed	B*51:61:02	Unconfirmed	B*51:109	Confirmed
B*51:01:30	Unconfirmed	B*51:17	Unconfirmed	B*51:62	Unconfirmed	B*51:110N	Unconfirmed
B*51:01:31	Unconfirmed	B*51:18	Unconfirmed	B*51:63	Unconfirmed	B*51:111	Confirmed
B*51:01:32	Confirmed	B*51:19	Confirmed	B*51:64	Confirmed	B*51:112	Unconfirmed
B*51:01:33	Confirmed	B*51:20	Confirmed	B*51:65	Confirmed	B*51:113	Unconfirmed
B*51:01:34	Confirmed	B*51:21	Unconfirmed	B*51:66	Unconfirmed	B*51:114	Unconfirmed
B*51:01:35	Confirmed	B*51:22	Confirmed	B*51:67	Confirmed	B*51:115	Confirmed
B*51:01:36	Unconfirmed	B*51:23	Confirmed	B*51:68	Confirmed	B*51:116	Confirmed
B*51:01:37	Unconfirmed	B*51:24:01	Confirmed	B*51:69	Confirmed	B*51:117	Confirmed
B*51:01:38	Confirmed	B*51:24:02	Unconfirmed	B*51:70	Confirmed	B*51:118N	Unconfirmed
B*51:01:39	Confirmed	B*51:24:03	Confirmed	B*51:71	Unconfirmed	B*51:119	Confirmed
B*51:01:40	Unconfirmed	B*51:24:04	Confirmed	B*51:72	Unconfirmed	B*51:120	Confirmed
B*51:01:41	Unconfirmed	B*51:24:05	Confirmed	B*51:73	Confirmed	B*51:121	Unconfirmed
B*51:01:42	Unconfirmed	B*51:26	Confirmed	B*51:74	Confirmed	B*51:122	Confirmed
B*51:01:43	Unconfirmed	B*51:27N	Unconfirmed	B*51:75	Confirmed	B*51:123	Confirmed
B*51:01:44	Confirmed	B*51:28	Unconfirmed	B*51:76	Unconfirmed	B*51:124	Confirmed
B*51:01:45	Unconfirmed	B*51:29	Confirmed	B*51:77	Unconfirmed	B*51:125	Unconfirmed
B*51:01:46	Unconfirmed	B*51:30	Unconfirmed	B*51:78:01	Confirmed	B*51:126	Confirmed
B*51:01:47	Unconfirmed	B*51:31	Unconfirmed	B*51:78:02	Unconfirmed	B*51:127	Confirmed
B*51:01:48	Unconfirmed	B*51:32	Unconfirmed	B*51:79	Confirmed	B*51:128	Unconfirmed
B*51:01:49	Unconfirmed	B*51:33	Unconfirmed	B*51:80	Unconfirmed	B*51:129	Unconfirmed

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

Allele	Status ¹	Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
B*51:130	Confirmed	B*51:150	Unconfirmed	B*51:169	Unconfirmed	B*51:189	Unconfirmed
B*51:131	Unconfirmed	B*51:151	Confirmed	B*51:170	Unconfirmed	B*51:190	Unconfirmed
B*51:132	Unconfirmed	B*51:152	Confirmed	B*51:171	Unconfirmed	B*51:191	Unconfirmed
B*51:133	Unconfirmed	B*51:153	Unconfirmed	B*51:172	Unconfirmed	B*51:192	Unconfirmed
B*51:134	Confirmed	B*51:154	Unconfirmed	B*51:173Q	Unconfirmed	B*51:193	Confirmed
B*51:135	Unconfirmed	B*51:155	Unconfirmed	B*51:174	Confirmed	B*51:194	Unconfirmed
B*51:136	Confirmed	B*51:156	Confirmed	B*51:175	Unconfirmed	B*51:195	Unconfirmed
B*51:137	Unconfirmed	B*51:157	Unconfirmed	B*51:176	Unconfirmed	B*51:196	Unconfirmed
B*51:138	Unconfirmed	B*51:158:01	Confirmed	B*51:177	Unconfirmed	B*51:197	Unconfirmed
B*51:139	Unconfirmed	B*51:158:02	Confirmed	B*51:178N	Unconfirmed	B*51:198	Unconfirmed
B*51:140	Unconfirmed	B*51:159	Unconfirmed	B*51:179	Unconfirmed	B*51:199	Unconfirmed
B*51:141	Unconfirmed	B*51:160	Confirmed	B*51:180	Unconfirmed	B*51:200	Unconfirmed
B*51:142	Unconfirmed	B*51:161	Unconfirmed	B*51:181	Unconfirmed	B*51:201	Unconfirmed
B*51:143	Unconfirmed	B*51:162	Unconfirmed	B*51:182	Unconfirmed	B*51:202	Unconfirmed
B*51:144	Unconfirmed	B*51:163	Unconfirmed	B*51:183	Unconfirmed	B*51:203	Unconfirmed
B*51:145	Unconfirmed	B*51:164	Unconfirmed	B*51:184N	Unconfirmed	B*51:204	Unconfirmed
B*51:146	Confirmed	B*51:165	Unconfirmed	B*51:185	Confirmed	B*51:205	Unconfirmed
B*51:147	Confirmed	B*51:166	Unconfirmed	B*51:186	Unconfirmed	B*51:206	Unconfirmed
B*51:148	Confirmed	B*51:167	Confirmed	B*51:187	Confirmed	B*51:207	Unconfirmed
B*51:149N	Unconfirmed	B*51:168	Confirmed	B*51:188	Unconfirmed	B*51:208	Unconfirmed

¹Allele status “confirmed” or “unconfirmed” as listed on the IMGT/HLA web page 2016-July-14, release 3.25.0, www.ebi.ac.uk/imgt/hla.

RESOLUTION IN HOMO- AND HETEROZYGOTES

Results file with resolution in HLA-B*51 homo- and heterozygotes is available upon request.

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

SPECIFICITY TABLE

HLA-B*51 SSP subtyping

Specificities and sizes of the PCR products of the 82+1 primer mixes used for
HLA-B*51 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-B*51 alleles ³	Other amplified HLA-B alleles ⁴
1⁵	105 bp	800 bp	*51:01:01:01-51:06:03, 51:08:01-51:21, 51:23-51:24:05, 51:26-51:46, 51:48-51:103, 51:105-51:111, 51:113-51:127, 51:129-51:146, 51:148-51:188, 51:190-51:208	*08:32, 08:133, 18:07:01-18:07:02, 18:29, 18:79, 35:01:01:01-35:08:01, 35:08:03-35:08:04, 35:08:06-35:18, 35:21-35:24:02, 35:27, 35:29:01-35:45, 35:48, 35:50-35:62, 35:64:01-35:71, 35:74-35:75, 35:77, 35:79-35:81, 35:83-35:84, 35:86-35:94, 35:96-35:134N, 35:136-35:153, 35:155-35:185, 35:187-35:197, 35:199-35:206, 35:208-35:209, 35:211-35:216N, 35:218-35:225, 35:227-35:228, 35:230-35:253, 35:256-35:270, 35:272-35:273, 35:275-35:293, 35:295, 35:297-35:310, 35:312-35:316, 35:318-35:322, 37:21, 38:06-38:07, 44:06, 52:06:01-52:06:03, 53:01:01-53:08:02, 53:10-53:16, 53:18-53:27, 53:29, 53:31-53:37, 53:41-53:43, 78:01:01-78:02:02, 78:04, 78:07-78:09
2⁵	95 bp	1070 bp	*51:01:01:01-51:01:53, 51:03-51:04, 51:06:01-51:07:02, 51:11N-51:14, 51:16-51:18, 51:21-51:22, 51:24:01-51:24:05, 51:26-51:30, 51:32-51:33, 51:35, 51:37-51:39, 51:41N, 51:43, 51:45-51:46, 51:48-51:52, 51:55-51:58, 51:60-51:72, 51:74-51:80, 51:82-51:92:02, 51:94-51:96, 51:98N-51:107, 51:109-51:114, 51:116-51:119, 51:121, 51:123-51:138, 51:140, 51:142, 51:145, 51:147, 51:149N-51:152, 51:154-51:156, 51:158:01-51:174:01, 51:176-51:179, 51:182-51:193, 51:195-51:196, 51:198, 51:200-51:208	*07:218, 13:62, 14:01:01-14:40, 14:42, 14:44-14:45, 14:47-14:54, 15:37-15:38:02, 15:323, 15:335, 15:364, 15:368, 18:15, 18:19, 18:30, 18:57, 27:153, 35:21, 35:96, 35:188, 40:28, 40:51, 40:174, 49:09, 52:01:01:01-52:02:02, 52:04-52:09, 52:12-52:18, 52:20-52:27, 52:30-52:61, 53:06, 53:28, 56:05:01-56:06, 56:21, 58:08:01-58:08:02, 78:01:01-78:03, 78:05-78:07, 78:09, C*01:30, C*08:51, C*08:114, C*12:87, C*15:39
3	265 bp	1070 bp	*51:02:01-51:02:05, 51:05, 51:10, 51:15, 51:23, 51:34, 51:36, 51:40, 51:54, 51:93, 51:108, 51:143-51:144,	*07:78, 07:84, 08:09, 08:84, 13:02:01-13:02:12, 13:02:14-13:04, 13:08-13:09, 13:14, 13:16, 13:18-13:19, 13:27, 13:30-13:35, 13:37-13:38, 13:40-13:42, 13:45-13:49N, 13:53-13:56:02N, 13:58-13:59, 13:65-13:70, 13:72, 13:74-13:75,

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

			51:146, 51:157, 51:180, 51:197, 51:199	13:81-13:82, 13:84-13:85, 13:88-13:89, 13:91, 13:93, 15:04:01:01-15:04:04, 15:16:01:01-15:16:03, 15:42, 15:67, 15:83, 15:95, 15:137, 15:155, 15:222, 15:254, 15:293, 15:303, 15:310, 15:362, 27:14, 27:81, 27:130, 35:37, 35:60, 35:235, 35:265, 35:273, 35:276, 39:06:01-39:06:05, 39:33-39:34, 39:50, 39:57, 39:62, 39:64, 39:83, 39:90, 39:102, 39:109, 40:06:01:01- 40:06:15, 40:44, 40:53, 40:70:01-40:70:02, 40:75, 40:83, 40:86, 40:93, 40:95-40:96, 40:103, 40:109-40:110, 40:127, 40:131, 40:148, 40:159, 40:161-40:162, 40:165, 40:167, 40:177, 40:190, 40:230, 40:244, 40:256N, 40:268-40:270, 40:275, 40:294- 40:295, 40:298, 40:306-40:307, 40:311, 40:313, 40:317-40:318, 40:330, 41:01:01- 41:01:03, 41:05-41:07, 41:09, 41:12, 41:14, 41:16-41:17, 41:20-41:22, 41:25-41:26, 41:28-41:30, 41:32-41:35, 41:37, 41:44, 42:04, 44:15, 44:18, 44:20, 44:47, 44:100, 44:197, 45:01:01-45:19, 46:11, 46:18, 46:32, 49:01:01-49:01:04, 49:01:06, 49:01:08-49:08, 49:10-49:14, 49:16-49:43, 50:01:01-50:02, 50:04-50:11, 50:13-50:16, 50:18-50:20, 50:31-50:47, 52:03, 52:11, 54:01:01-54:05N, 54:07-54:08N, 54:10- 54:35, 55:01:01-55:01:06, 55:01:08- 55:02:02, 55:02:04-55:03, 55:05, 55:07, 55:09-55:13, 55:15-55:48, 55:50, 55:52- 55:78, 56:01:01:01-56:01:08, 56:07-56:08, 56:13-56:17, 56:19N-56:20:02, 56:22- 56:30, 56:33, 56:35-56:36, 56:38N-56:50, 59:01:01:01-59:09, 78:04, C*07:463, C*12:183
4	255 bp	1070 bp	*51:03	
5	270 bp	1070 bp	*51:04, 51:46, 51:56:01- 51:56:03, 51:139	*14:10, 18:22, 18:69 ^w , 18:105, 35:21, 35:24:01-35:24:02, 35:81, 35:96, 35:109, 35:157, 35:188, 35:190, 35:233, 35:287, 37:04:01 ^w -37:04:02 ^w , 40:28, 44:190, 44:203, 53:02, 53:06, 53:28, 57:14:01- 57:14:02, 58:09, 58:76, C*15:39
6⁶	210 bp	800 bp	*51:05 ^w , 51:09:01-51:10, 51:15, 51:19, 51:31, 51:40, 51:54 ^w , 51:73, 51:93, 51:108, 51:122, 51:157	*13:02:01-13:04, 13:08-13:09, 13:14-13:15, 13:18-13:19, 13:27, 13:30, 13:32-13:35, 13:37-13:38, 13:40, 13:42, 13:44-13:45, 13:47, 13:49N, 13:53-13:56:02N, 13:58- 13:59, 13:65-13:70, 13:72, 13:74-13:75, 13:81-13:82, 13:84-13:85, 13:88-13:89, 13:91, 13:93, 15:155, 15:222, 27:14, 27:81, 27:130, 35:37, 35:60, 35:235, 35:273, 35:276, 39:06:01-39:06:05, 39:33 ^w , 39:34, 39:50, 39:57, 39:62, 39:64, 39:83, 39:90, 39:102, 39:109, 40:06:01:01-40:06:15, 40:44, 40:53, 40:70:01-40:70:02, 40:75, 40:83, 40:86, 40:93, 40:96, 40:103,

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

				40:109-40:110, 40:127, 40:131, 40:159, 40:162, 40:165, 40:167, 40:177, 40:190, 40:230, 40:244, 40:256N, 40:268-40:270, 40:275, 40:294-40:295, 40:298, 40:306-40:307, 40:311, 40:313, 40:317-40:318, 40:330, 44:47, 44:197, 46:11, 46:18, 49:11, 52:03, 52:10:01-52:10:03, 54:01:01-54:05N, 54:07-54:08N, 54:10 ^w , 54:11-54:19, 54:21-54:32, 54:34-54:35, 55:02:01-55:02:10, 55:07, 55:10, 55:12-55:13, 55:16, 55:18-55:19, 55:22-55:23, 55:26-55:27, 55:30, 55:32, 55:34-55:35, 55:37 ^w , 55:39, 55:41-55:43, 55:46-55:48, 55:50, 55:61-55:63, 55:65, 55:67, 55:69-55:72, 55:77, 56:01:01-56:01:08, 56:07-56:08, 56:14-56:17, 56:19N-56:20:02, 56:22-56:24, 56:26-56:29, 56:33-56:36, 56:38N-56:42, 56:44-56:50, 59:01:01-59:09, 73:01-73:02, 78:04, 78:08
7	240 bp 270 bp	1070 bp	*51:156 *51:06:01-51:06:03, 51:45, 51:62, 51:64, 51:135, 51:194	*07:218, 07:220, 08:118, 14:01:01-14:09, 14:11-14:19, 14:21-14:36, 14:38-14:45, 14:47-14:54, 15:37-15:38:02, 15:185, 15:323, 15:335, 15:364, 15:368, 18:01:01-18:09, 18:12:01-18:15, 18:17N-18:20, 18:23N-18:34, 18:36-18:38, 18:40-18:55, 18:57, 18:59-18:68, 18:70-18:88, 18:90-18:100, 18:102-18:104, 18:106-18:109, 18:111-18:123, 18:125-18:127, 27:28, 27:62, 39:32, 39:43, 39:48, 40:51, 40:113, 40:163, 40:174, 56:31, 67:06, C*01:30, C*07:516, C*07:521, C*08:51, C*08:114, C*12:87
g⁵	105 bp	800 bp	*51:07:01-51:07:02	*13:58, 15:202, 15:239, 15:308, 18:01:01-18:06, 18:08-18:15, 18:17N-18:28, 18:30-18:32, 18:34-18:36, 18:38-18:47, 18:49-18:65, 18:67-18:78, 18:80-18:106, 18:108-18:123, 18:126-18:127, 35:20:01-35:20:02, 35:28, 35:72, 35:95, 35:226, 35:296, 37:01:01-37:01:05, 37:01:07-37:05, 37:07-37:20, 37:22-37:25, 37:27, 37:29-37:56, 37:58-37:59, 40:185, 40:209, 40:308, 44:83, 44:134, 49:03, 52:01:01-52:01:12, 52:01:14-52:01:28, 52:03-52:05, 52:07-52:15, 52:17-52:21, 52:24-52:31:02, 52:33-52:61, 53:09, 53:17:01-53:17:02, 53:28, 53:38, 53:40, 78:05-78:06
g⁵	85 bp	1070 bp	*51:08:01-51:08:02, 51:20, 51:44N, 51:97, 51:141, 51:153 *51:17, 51:35	*08:118, 18:113, 37:04:01-37:04:02, 44:190, 52:19
10	205 bp 160 bp	1070 bp	*51:01:09, 51:01:21, 51:01:25, 51:10,	*07:78, 07:84, 27:14, 27:81, 27:130, 40:06:01-40:06:04, 40:06:06-40:06:15, 40:44, 40:53, 40:70:01-40:70:02, 40:75,

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

	245 bp		51:24:02-51:24:04, 51:197	40:83, 40:86, 40:93, 40:96, 40:103, 40:109- 40:110, 40:127, 40:131, 40:148, 40:159, 40:161-40:162, 40:165, 40:167, 40:177, 40:190, 40:230, 40:244, 40:256N, 40:268- 40:270, 40:275, 40:294-40:295, 40:298, 40:306-40:307, 40:311, 40:313, 40:317- 40:318, 40:330, 52:54, 54:11, 56:20:02, 73:01-73:02, C*07:463
			*51:21, 51:36, 51:101, 51:143, 51:153, 51:157, 51:197	*08:09, 08:84, 13:46, 13:53, 14:37, 15:42, 15:83, 35:60, 35:276, 39:06:01-39:06:05, 39:34, 39:57, 39:62, 39:64, 39:83, 39:90, 39:109, 41:01:01-41:01:04, 41:05-41:07, 41:09, 41:12, 41:14, 41:16, 41:20-41:22, 41:25-41:26, 41:28-41:30, 41:32-41:35, 41:37, 41:44, 42:04, 45:08, 46:18, 50:45, 52:37, 54:01:01-54:02, 54:04-54:05N, 54:07-54:08N, 54:10-54:25, 54:27-54:32, 54:34-54:35, 55:01:01-55:01:06, 55:01:08- 55:03, 55:05, 55:07, 55:10-55:13, 55:15- 55:21, 55:23, 55:25-55:48, 55:50, 55:52- 55:78, 56:23, 59:01:01-59:03, 59:05- 59:08, 78:07, C*07:463, C*12:183
11	245 bp	1070 bp	*51:10, 51:16, 51:31, 51:34, 51:82, 51:93	*07:78, 07:84, 13:02:01-13:02:18, 13:08- 13:09, 13:14-13:16, 13:18-13:19, 13:27, 13:30-13:35, 13:37-13:38, 13:40-13:42, 13:44-13:45, 13:47, 13:49N, 13:54- 13:56:02N, 13:58-13:59, 13:65-13:70, 13:72, 13:74-13:75, 13:81-13:82, 13:84- 13:85, 13:88-13:89, 13:91, 13:93, 27:14, 27:81, 27:130, 39:50, 40:06:01-01- 40:06:15, 40:44, 40:53, 40:70:01-40:70:02, 40:75, 40:83, 40:86, 40:93, 40:95-40:96, 40:103, 40:109-40:110, 40:127, 40:131, 40:148, 40:159, 40:161-40:162, 40:165, 40:167, 40:177, 40:190, 40:230, 40:244, 40:256N, 40:268-40:270, 40:275, 40:294- 40:295, 40:298, 40:306-40:307, 40:311, 40:313, 40:317-40:318, 40:330, 45:10, 49:07, 50:31, 52:08, 54:26, 55:09, 55:22, 55:24, 59:09, 73:01-73:02, 78:08
12	495 bp	1070 bp	*51:11N	
13	200 bp	1070 bp	*51:12	
14⁵	105 bp	1070 bp	*51:13:01-51:13:02, 51:92:01-51:92:02, 51:172	*13:46, 15:137, 35:235, 35:276, 39:06:01- 39:06:05, 39:33-39:34, 39:50, 39:57, 39:62, 39:64, 39:83, 39:90, 39:102, 39:109, 40:86, 40:330, 45:02, 50:09, 52:14, 55:13, 55:58, 56:22, 59:03, 73:01-73:02
15⁵	100 bp 230 bp	800 bp	*51:14 *51:19, 51:101	*35:276, 39:06:01-39:06:05, 39:57, 39:62, 39:64, 39:83, 39:90, 39:109
16	170 bp	1070 bp	*51:15, 51:35, 51:62, 51:106	*13:03, 13:48, 15:73, 15:303, 35:291, 40:71, 44:10, 44:15, 44:18, 44:140, 45:01:01-45:01:02, 45:04-45:07, 45:11- 45:19, 46:11, 49:01:01-49:01:07, 49:02- 49:03, 49:06, 49:08-49:14, 49:16-49:17, 49:19N-49:43, 50:01:01-50:02, 50:04-

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

	195 bp		*51:18	50:08, 50:10-50:13, 50:15-50:19, 50:32, 50:34-50:38, 50:40-50:44, 50:46-50:47, 52:25:01-52:25:02, 54:03, 54:33, 56:01:01:01-56:01:04, 56:01:06-56:02:02, 56:04, 56:07-56:08, 56:13-56:14, 56:16-56:17, 56:20:01-56:20:02, 56:24-56:30, 56:33-56:49, 56:51, 58:73, 59:04, 82:01-82:03, C*03:19, C*03:102, C*15:15
17⁵	105 bp	800 bp	*51:22	*15:376, 18:33, 35:82, 35:85, 35:135, 35:294, 37:57, 39:19:01-39:19:02, 78:03
18	140 bp 220 bp	800 bp	*51:28 *51:08:01-51:08:02, 51:20, 51:36, 51:44N, 51:97, 51:141, 51:153	*08:09, 08:84, 13:46, 15:83, 41:01:01-41:01:04, 41:05-41:07, 41:09, 41:12, 41:14, 41:16-41:17, 41:20-41:22, 41:25-41:26, 41:28-41:30, 41:32-41:35, 41:37, 41:44, 42:04, 44:15, 44:18, 44:20, 44:100, 45:01:01-45:19, 52:19, 55:20, 55:56, 56:13
19	145 bp	800 bp	*51:10, 51:24:01-51:24:05, 51:197, 51:199	*07:78, 07:84, 08:09, 08:84, 27:130, 40:06:01:01-40:06:15, 40:44, 40:53, 40:70:01-40:70:02, 40:75, 40:83, 40:86, 40:93, 40:96, 40:103, 40:109-40:110, 40:127, 40:131, 40:148, 40:159, 40:161-40:162, 40:165, 40:167, 40:177, 40:190, 40:230, 40:244, 40:256N, 40:268-40:270, 40:275, 40:294-40:295, 40:298, 40:306-40:307, 40:311, 40:313, 40:317-40:318, 40:330, 41:01:01-41:01:04, 41:05-41:07, 41:09, 41:12, 41:14, 41:16-41:17, 41:20-41:22, 41:25-41:26, 41:28-41:30, 41:32-41:35, 41:37, 41:44, 42:04, 49:40, 52:54, 54:11, 55:20, 56:20:01-56:20:02, 59:02, 73:01-73:02, C*07:463, C*12:183
20⁵	110 bp 200 bp	1070 bp	*51:26 *51:185	*52:09
21	130 bp 185 bp	1070 bp	*51:38 *51:27N	*13:42
22	160 bp	1070 bp	*51:01:01:01-51:01:01:02, 51:01:03-51:01:08, 51:01:10-51:02:01, 51:02:03-51:04, 51:06:01-51:07:01, 51:08:01-51:09:01, 51:09:03-51:14, 51:16-51:24:05, 51:26-51:46, 51:48-51:53, 51:55-51:78:01, 51:79-51:88, 51:90-51:92:02, 51:94-51:102, 51:104-51:115, 51:117, 51:120-51:131, 51:133-51:143, 51:145-51:147, 51:149N-51:175, 51:177-51:178N, 51:181-51:208	*07:65 ^w , 07:206 ^w , 08:26:03, 18:04, 18:125, 35:08:05, 35:42:02, 35:185, 39:63, 44:06, 53:06, 56:05:01 ^w , 56:06 ^w , 78:01:01-78:01:02, 78:02:02-78:03, 78:07-78:09

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

23	210 bp	1070 bp		*07:65, 07:206, 08:26:03, 15:32:02, 18:04, 18:125, 35:08:05, 35:42:02, 35:185, 39:63, 40:01:11, 40:58, 46:40:01, 56:05:01, 56:06, 78:01:01-78:01:02, 78:02:02-78:03, 78:07-78:09
24	210 bp	1070 bp	*51:01:01:01-51:01:01:02, 51:01:03-51:01:08, 51:01:10-51:01:39, 51:01:41-51:02:01, 51:02:03-51:04, 51:06:01-51:07:01, 51:08:01-51:09:01, 51:09:03-51:14, 51:16-51:24:05, 51:26-51:42, 51:43 ^w , 51:44N-51:46, 51:48-51:53, 51:55-51:77, 51:79-51:88, 51:90-51:92:02, 51:94-51:102, 51:104-51:115, 51:117-51:118N, 51:120-51:131, 51:133-51:143, 51:145-51:147, 51:149N-51:175, 51:177-51:178N, 51:181-51:208	*44:06, 49:03, 52:01:02, 52:01:04, 52:01:09, 52:02:01, 52:03, 52:06:01-52:06:02, 52:09, 52:10:03, 52:21, 52:31:02, 53:06, 57:01:20, 58:08:01, A*23:01:14
25^{5,7}	120 bp 175 bp 205 bp	800 bp	*51:38, 51:142 *51:30 *51:53	*13:42 *52:29, 55:54
26⁵	105 bp	1070 bp	*51:13:01-51:13:02, 51:37, 51:63:01, 51:92:01-51:92:02, 51:87, 51:172	*13:04, 13:46, 13:72, 15:04:01:01-15:04:04, 15:16:01:01-15:16:03, 15:67, 15:95, 15:137, 15:155, 15:222, 15:254, 15:293, 15:310, 15:362, 35:37, 35:235, 35:265, 35:276, 39:06:01-39:06:05, 39:33-39:34, 39:50, 39:57, 39:62, 39:64, 39:83, 39:90, 39:102, 39:109, 40:86, 40:159, 40:330, 41:30, 45:02, 45:09, 46:32, 49:04:01-49:05, 50:09, 50:33, 52:14, 52:39, 54:14, 55:13, 55:23, 55:32, 55:58, 55:68, 56:22, 56:50, 59:03, 73:01-73:02, C*07:463, C*12:183
27⁸	155 bp 140 bp 205 bp 270 bp	800 bp	*51:32 *51:126 *51:33 *51:04, 51:46, 51:56:01-51:56:03, 51:139	*27:69, 40:213, 58:52 C*08:114 *44:165, 58:53 *14:10, 18:22, 18:69 ^w , 18:105, 35:21, 35:24:01-35:24:02, 35:81, 35:96, 35:109, 35:157, 35:188, 35:190, 35:233, 35:287, 37:04:01 ^w -37:04:02 ^w , 40:28, 44:190, 44:203, 53:02, 53:06, 53:28, 57:14:01-57:14:02, 58:09, 58:76, C*15:39
28	345 bp 205 bp 255 bp	1070 bp	*51:39 *51:33 *51:23, 51:108	*37:52, 44:24, 44:181, 81:06 [?] *44:165, 58:53 *44:15, 44:18, 44:20, 44:47, 44:100, 44:197, 45:01:01-45:03, 45:05-45:07, 45:09, 45:11-45:19, 49:20, 50:02, 52:15
29	245 bp	1070 bp	*51:01:01:01-51:01:38, 51:01:40-51:03, 51:05, 51:07:01-51:09:03,	*13:03-13:04, 13:48, 13:62, 15:04:01:01-15:04:04, 15:16:01:01-15:16:03, 15:67, 15:95, 15:137, 15:155, 15:222, 15:254,

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

			51:11N-51:15, 51:17-51:20, 51:22-51:24:05, 51:26-51:30, 51:32-51:33, 51:35, 51:37-51:41N, 51:43-51:44N, 51:48-51:55, 51:57-51:58, 51:60-51:61:02, 51:63:01, 51:65-51:80, 51:83-51:92:02, 51:94-51:100, 51:102-51:134, 51:136-51:138, 51:140-51:142, 51:145-51:147, 51:149N-51:152, 51:154-51:156, 51:158:01-51:193, 51:195-51:196, 51:198-51:208	15:293, 15:303, 15:310, 15:362, 27:153, 35:37, 35:235, 35:265, 35:273, 39:33, 41:17, 44:15, 44:18, 44:20, 44:47, 44:100, 44:197, 45:01:01-45:07, 45:09, 45:11-45:19, 46:11, 46:32, 49:01:01-49:06, 49:08-49:14, 49:16-49:43, 50:01:01-50:02, 50:04-50:11, 50:13-50:16, 50:18-50:20, 50:32-50:44, 50:46-50:47, 52:01:01:01-52:01:20, 52:01:22-52:07, 52:09-52:36, 52:38-52:61, 54:03, 54:33, 56:01:01:01-56:01:08, 56:05:01-56:08, 56:13-56:17, 56:19N-56:22, 56:24-56:30, 56:33-56:50, 58:08:01-58:08:02, 59:04, 78:01:01-78:06, 78:09
30^{5,6,7}	105 bp	800 bp	*51:06:01, 51:06:03, 51:56:01, 51:59, 51:64, 51:135, 51:194	*07:02:11, 07:05:03, 15:01:02, 15:09, 15:243, 15:252, 15:277-15:278, 15:361, 35:251, 40:01:06, 40:26, 44:62, C*02:02:23
31⁵	105 bp	1070 bp	*51:13:01-51:13:02, 51:37, 51:63:01, 51:92:01-51:92:02, 51:97, 51:172	*13:04, 13:46, 13:72, 15:04:01:01-15:04:04, 15:16:01:01-15:16:03, 15:67, 15:95, 15:137, 15:155, 15:222, 15:254, 15:293, 15:310, 15:362, 35:37, 35:235, 35:265, 35:276, 39:06:01-39:06:05, 39:33-39:34, 39:50, 39:57, 39:62, 39:64, 39:83, 39:90, 39:102, 39:109, 40:86, 40:159, 40:330, 41:30, 45:02, 45:09, 46:32, 49:04:01-49:05, 50:09, 50:33, 52:14, 52:39, 54:14, 55:13, 55:23, 55:32, 55:58, 55:68, 56:22, 56:50, 59:03, 73:01-73:02, C*07:463, C*12:183
	225 bp		*51:05, 51:29, 51:54, 51:61:01-51:61:02, 51:82, 51:197	*07:78, 07:84, 13:18, 13:31, 13:41, 15:04:01:01-15:04:04, 15:137, 15:303, 35:265, 39:33, 40:161, 46:32, 49:41, 50:47, 52:21, 52:24, 54:10, 54:20, 54:33, 55:09, 55:21, 55:37, 55:52, 56:43, C*12:183
32	165 bp	1070 bp	*51:16, 51:31, 51:34, 51:82, 51:93	*07:02:11, 07:05:03, 27:04:03, 40:01:06, 40:95, 52:08, 78:08, C*02:02:23
33	195 bp	1070 bp	*51:41N	
34	260 bp	1070 bp	*51:42	*27:127, 35:45, 35:71, 35:169, 35:309, 44:02:01:01-44:02:07, 44:02:09-44:02:33, 44:02:35-44:02:38, 44:02:40-44:03:16, 44:03:18-44:14, 44:17, 44:19N, 44:21-44:30, 44:32-44:36, 44:38-44:40, 44:43:01-44:46, 44:48-44:53:01, 44:55-44:63, 44:66-44:90, 44:92-44:98, 44:102-44:105, 44:107-44:131, 44:133-44:134, 44:136-44:137, 44:139-44:149N, 44:151-44:157, 44:159-44:165, 44:167-44:183, 44:185-44:189, 44:191-44:192:02, 44:194, 44:196, 44:198N-44:212, 44:214-44:229, 44:231-44:233, 44:235, 44:237N-44:245, 44:247-44:249, 53:22, 57:07, 83:01, C*15:25
35	225 bp	1070 bp		*08:49, 08:60, 08:76, 08:129, 27:127, 35:38, 35:115, 35:169, 35:260, 37:01:01-37:01:07, 37:01:09, 37:01:11, 37:03N-

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

				37:06:02, 37:08, 37:10-37:38, 37:41-37:43, 37:45-37:50, 37:52-37:59, 42:13, 44:02:01:01-44:02:33, 44:02:35-44:02:40, 44:05:01-44:06, 44:08-44:09, 44:11-44:12, 44:14, 44:16-44:17, 44:19N, 44:21-44:25, 44:27:01-44:27:02, 44:33-44:34:02, 44:42, 44:44, 44:48-44:49, 44:51-44:53:01, 44:55, 44:58N-44:59:02, 44:62-44:63, 44:66-44:68, 44:70-44:75, 44:78, 44:80, 44:83-44:84:02, 44:86-44:91, 44:93, 44:95, 44:97, 44:101-44:102, 44:104, 44:112-44:113, 44:116-44:119, 44:121, 44:123, 44:126:01-44:127, 44:131-44:134, 44:136-44:137, 44:139-44:140, 44:142, 44:145, 44:148-44:149N, 44:151-44:152, 44:162, 44:168-44:173, 44:176-44:177, 44:179, 44:185, 44:187, 44:190-44:191, 44:195N-44:196, 44:200-44:201, 44:206, 44:208, 44:211-44:212, 44:214, 44:216-44:221, 44:225-44:226, 44:229, 44:235, 44:238, 44:240-44:244, 44:249, 53:22, 57:09, 57:24, 83:01, C*15:25
36⁵	110 bp 215 bp	1070 bp	*51:165 *51:43	*15:214, 18:81, 35:250, 57:29
37	165 bp 225 bp	1070 bp	*51:44N *51:55	
38	205 bp	1070 bp	*51:37, 51:45, 51:63:01, 51:97	*15:38:01-15:38:02, 15:185, 15:335, 15:364, 15:368, 18:01:01:01-18:09, 18:12:01-18:15, 18:17N-18:20, 18:22-18:25, 18:27-18:34, 18:36-18:40, 18:42-18:55, 18:57, 18:59-18:60, 18:62-18:100, 18:102-18:109, 18:111-18:121, 18:123, 18:125-18:127, 35:21, 35:24:01-35:24:02, 35:188, 35:190, 35:287, 39:43, 52:39, 53:02, 53:06, 53:28, 56:31, 57:14:01-57:14:02, 58:09, 58:76, C*07:516, C*07:521, C*12:87
39^{7,8}	250 bp 250 bp	1070 bp	*51:173Q *51:46, 51:64-51:65	*07:218, 07:220, 08:118, 14:05, 14:13, 14:53, 18:14, 40:174, 52:43
40	185 bp	1070 bp	*51:01:01:01-51:01:39, 51:01:41, 51:01:43-51:01:52, 51:02:01-51:24:05, 51:26-51:46, 51:48-51:53, 51:55-51:59, 51:61:01-51:72, 51:74-51:77, 51:79-51:102, 51:104-51:124, 51:126-51:140, 51:142-51:197, 51:199-51:202, 51:204-51:208	*07:36, 07:38, 07:81, 07:180, 07:219, 15:13:01-15:13:02, 15:17:01:01-15:17:05, 15:24:01-15:24:02, 15:87, 15:157, 15:162, 15:168, 15:177, 15:196, 15:208, 15:216, 15:230, 15:268, 15:273, 15:356, 15:361, 15:396, 27:75, 37:34, 38:01:12, 44:06, 48:18, 49:03, 52:01:01:01-52:19, 52:21-52:61, 53:01:01-53:01:10, 53:02, 53:04-53:08:02, 53:10, 53:14-53:29, 53:32-53:35, 53:37, 53:39-53:43, 57:01:01-57:01:08, 57:01:10-57:11, 57:13-57:50, 57:52-57:68, 57:70-57:83, 58:01:01:01-58:02:02, 58:04-58:16:02, 58:18-58:29, 58:31N-58:43, 58:45:01-58:47, 58:49-58:63, 58:65-58:81

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

41⁷	225 bp	1070 bp	*51:05, 51:29, 51:54, 51:61:01-51:61:02, 51:82, 51:197	*07:78, 07:84, 13:18, 13:31, 13:41, 15:04:01:01-15:04:04, 15:137, 15:303, 35:265, 39:33, 40:161, 46:32, 49:41, 50:47, 52:21, 52:24, 54:10, 54:20, 54:33, 55:09, 55:21, 55:37, 55:52, 56:43, C*12:183 *15:367, C*02:83, C*08:24, C*16:90
	305 bp		*51:48, 51:166, 15:140	
	380 bp		*51:169	
42⁵	100 bp	800 bp	*51:60	
	135 bp		*51:49	
43⁵	115 bp	800 bp	*51:58	
	215 bp		*51:50	
44	285 bp	800 bp	*51:76, 51:166, 15:140	*08:39, 35:101:02, 35:195, 35:211, 44:185, 54:34 C*01:83^w
	385 bp		*51:51	
45	145 bp	1070 bp	*51:178N	
	190 bp		*51:52	
46⁵	80 bp	800 bp	*51:57	*07:206
	170 bp		*51:123	*55:59
47⁵	125 bp	800 bp	*51:20, 51:208	*07:65, 07:134, 08:32, 18:03, 35:29:01- 35:29:02, 35:69, 35:76, 35:136, 35:186 ^w , 35:229, 35:294, 35:316, 37:37, 39:19:01- 39:19:02, 46:40:01 ^w -46:40:02 ^w , 53:23, 56:06, 56:45, 78:01:01-78:01:02, 78:03, 78:07-78:08
48⁵	95 bp	1070 bp	*51:37, 51:90, 51:92:01- 51:92:02, 51:197	*07:84, 13:04, 13:35, 13:72, 15:04:01:01- 15:04:04, 15:16:01:01-15:16:03, 15:67, 15:95, 15:155, 15:222, 15:254, 15:293, 15:310, 15:362, 35:37, 35:235, 35:265, 40:44, 40:159, 41:21, 44:20, 44:47, 44:100, 44:197, 45:09, 46:32, 49:04:01-49:05, 50:33, 50:39, 52:12, 52:26, 54:14-54:16, 55:23, 55:27, 55:46, 55:68, 56:50, C*07:463, C*12:183 *13:31, 13:41, 15:04:01:01-15:04:04, 15:137, 15:303, 35:265, 46:32, 50:47, 52:21, 54:33, 55:21, 56:43, C*12:183
	220 bp		*51:61:01-51:61:02	
49	160 bp	1070 bp	*51:01:02, 51:01:09, 51:02:02, 51:05, 51:07:02, 51:09:02, 51:15, 51:54, 51:78:02, 51:93, 51:132, 51:144, 51:148, 51:180	*07:56:01-07:56:02, 07:72, 08:26:01- 08:26:02, 08:56:01-08:56:02, 14:54, 15:02:01-15:02:11, 15:08:01-15:08:02, 15:11:01-15:11:07, 15:13:01-15:13:02, 15:15, 15:21, 15:31, 15:44, 15:55, 15:76, 15:88-15:89, 15:112, 15:121, 15:139, 15:143-15:144, 15:148, 15:170, 15:189, 15:191, 15:194, 15:209N, 15:213-15:215, 15:223, 15:265, 15:283-15:284, 15:291, 15:297, 15:301-15:303, 15:305, 15:308, 15:319, 15:325, 15:328, 15:330, 15:341, 15:350, 15:357-15:358, 15:367, 15:374, 15:378, 15:384, 15:394, 18:29, 18:98, 35:01:01:01-35:02:05, 35:02:07-35:08:04, 35:08:06-35:09:03, 35:11:01-35:12:03, 35:14:01-35:15:02, 35:17:01-35:24:02, 35:26-35:27, 35:29:01-35:42:01, 35:43:01- 35:62, 35:64:01-35:68:02, 35:70-35:72, 35:74-35:79, 35:81-35:83, 35:85-35:89,

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

				35:91-35:123, 35:126-35:141, 35:143-35:149, 35:151-35:161, 35:163-35:183, 35:187-35:190, 35:192-35:200, 35:202-35:206, 35:208-35:216N, 35:218-35:225, 35:227-35:266, 35:268-35:269, 35:271-35:300, 35:302-35:316, 35:319, 35:321-35:322, 38:28, 42:21, 53:01:01-53:05, 53:07-53:16, 53:18-53:27, 53:29-53:37, 53:39-53:42, 54:01:01-54:20, 54:22-54:24, 54:25 ^w , 54:26-54:34, 55:01:01-55:05, 55:07-55:09, 55:11-55:17, 55:19-55:33, 55:35, 55:37-55:39, 55:41-55:46, 55:47 ^w , 55:48-55:78, 56:01:01:01-56:04, 56:05:02, 56:07, 56:09-56:13, 56:15, 56:17-56:35, 56:37-56:51, 59:01:01:01-59:09, 78:02:01, 78:04
50	155 bp	1070 bp	*51:81	*07:02:01-07:02:13, 07:02:15-07:02:19, 07:02:21-07:02:34, 07:02:36-07:02:38, 07:02:40-07:06:01, 07:08-07:11, 07:13, 07:15-07:17, 07:19-07:21, 07:23-07:67N, 07:68:03-07:76, 07:79-07:83, 07:85-07:99, 07:101-07:136:02, 07:138-07:161N, 07:164-07:192, 07:194-07:195, 07:199-07:213, 07:215-07:224, 07:226, 07:228-07:234, 07:236, 07:238, 07:240-07:247, 07:249-07:254, 07:256-07:261, 07:263-07:270, 07:272N-07:275, 08:01:02, 08:01:13, 08:20, 08:53:02, 08:79, 08:156, 13:71, 27:07:01-27:07:05, 27:11, 27:24, 27:32-27:34, 27:43, 27:138, 35:31, 35:114, 37:07, 37:09, 40:02:01-40:02:19, 40:02:21-40:03, 40:05, 40:08-40:09, 40:13, 40:15-40:16, 40:18-40:19, 40:24, 40:27:01-40:27:02, 40:29, 40:31-40:32, 40:35:01, 40:37, 40:39-40:40, 40:45, 40:50, 40:56-40:58, 40:80, 40:82, 40:85, 40:89-40:91, 40:94, 40:97-40:98, 40:104-40:105, 40:107, 40:111, 40:115, 40:119, 40:122, 40:133Q, 40:142N-40:145, 40:157, 40:164, 40:169, 40:173-40:174, 40:176, 40:180-40:181, 40:189, 40:200-40:203, 40:205-40:206, 40:209, 40:211, 40:214, 40:219-40:220, 40:224, 40:226, 40:229, 40:232, 40:246, 40:248, 40:254-40:255, 40:266-40:267, 40:271, 40:274, 40:276, 40:283-40:284, 40:287, 40:289-40:293, 40:296-40:297, 40:302-40:305, 40:309, 40:314, 40:320, 40:322, 40:331, 40:334-40:335, 40:337N, 48:01:01-48:01:06, 48:04:01-48:11, 48:13, 48:15-48:16, 48:18-48:20, 48:22, 48:24, 48:27-48:39, 55:04, 55:49, 58:27, 81:01-81:08, C*02:60, C*03:05, C*03:25, C*03:27, C*03:167, C*07:294, C*07:526, C*07:530, C*08:08:01-08:08:02
51 ⁵	85 bp 135 bp	800 bp	*51:68 *51:136	

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

	215 bp		*51:72	
52	160 bp	1070 bp	*51:69, 51:107	*18:65, 52:30
53	135 bp	1070 bp	*51:136	
	165 bp		*51:71, 51:174:01	
	260 bp		*51:70	*52:55
54⁵	120 bp	1070 bp	*51:74	*08:155, 35:46-35:47, 35:154, 35:207, 35:217, 35:257, 35:278, 40:07-40:08, 40:13, 40:68, 40:106, 40:162, 40:220, 40:232, 41:46, 44:232, 53:30
	250 bp		*51:124, 51:156	
55⁵	75 bp	1070 bp	*51:77	
	200 bp		*51:75	
56	380 bp	1070 bp	*51:01:01:01-51:01:07, 51:01:09-51:01:14, 51:01:16-51:01:39, 51:01:41-51:01:42, 51:01:44-51:12, 51:16- 51:24:05, 51:26-51:36, 51:38-51:41N, 51:43- 51:44N, 51:46, 51:48- 51:49, 51:51-51:53, 51:55-51:61:02, 51:64- 51:77, 51:79-51:84, 51:86-51:89, 51:91, 51:93-51:96, 51:98N- 51:105, 51:107-51:134, 51:136-51:156, 51:158:01-51:171, 51:173Q-51:181, 51:183- 51:191, 51:193-51:196, 51:198-51:208	*08:03, 08:52, 08:78, 15:361, 27:102, 40:13, 40:19, 40:109, 40:117, 40:292, 41:46, 48:18, 49:18:01-49:18:02, 52:01:01:01-52:11, 52:13, 52:15-52:19, 52:21-52:24, 52:27-52:38, 52:40-52:61, 53:19, 56:21, 57:02:01-57:03:02, 57:05, 57:07, 57:09, 57:17, 57:39, 57:42, 57:46, 57:57, 57:63, 57:66, 57:70, 57:80, 57:82, 58:08:01-58:08:02, 58:27-58:28:02, 58:65, 59:02, A*24:146
57	145 bp 210 bp	1070 bp	*51:79, 51:178N *51:54, 51:78:01- 51:78:02	*13:17, 13:33, 15:36, 15:89, 15:256, 15:339, 44:02:10, 44:34:01-44:34:02, 44:83, 44:225, 44:245, 52:20, 53:09, 53:11- 53:13, 53:31, 53:36, 53:38, 56:07, 59:08
58⁸	170 bp	1070 bp	*51:80, 51:107, 51:168	
59⁵	120 bp 240 bp	1070 bp	*51:83 *51:88	
60^{5,8}	85 bp 190 bp	800 bp	*51:94 *51:84, 51:130	*49:12
61⁵	100 bp	1070 bp	*51:85, 51:192	*27:14, 27:81, 44:20, 44:47, 44:100, 44:197, 50:20, 52:26
62	210 bp 180 bp 250 bp	1070 bp	*51:87, 51:115, 51:181 *51:86, 51:132 *51:95	C*07:463 *39:57
63⁵	70 bp 200 bp	1070 bp	*51:91 *51:146	*13:86, 35:02:01-35:02:07, 35:02:08 ^w , 35:81, 35:83, 35:95, 35:129N, 35:146, 35:154, 35:162, 35:172, 35:182-35:184, 35:211, 35:220, 35:258, 35:270, 35:273, 35:285, 35:309, 35:311, 45:12, 50:36, 53:19, 53:36, 58:65

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

64⁵	115 bp 170 bp	1070 bp	*51:67 *51:66, 51:89	*35:314
65⁷	185 bp 215 bp	1070 bp	*51:98N *51:103, 51:116, 51:151	*08:62, 18:07:01-18:07:02, 18:29, 18:79, 27:23, 35:50, 35:84, 35:162, 35:217, 35:231, 35:280, 37:21, 40:07-40:08, 40:13, 40:68, 40:106, 40:162, 40:220, 40:232, 41:46
66	175 bp 210 bp	1070 bp	*51:109, 51:132 *51:120	
67⁵	110 bp 230 bp	1070 bp	*51:93, 51:122 *51:100	
68	160 bp 190 bp	1070 bp	*51:134 *51:105	
69⁵	105 bp 225 bp	1070 bp	*51:147 *51:110N	A*02:01:33^w, A*23:01:14^w
70	160 bp	1070 bp	*51:111, 51:134	
71	185 bp	1070 bp	*51:117, 51:130	*49:12
72⁵	90 bp 145 bp 170 bp	1070 bp	*51:118N *51:169 51:164	*39:46 ^w , 44:118 ^w
73	170 bp 295 bp	1070 bp	*51:174:01, 51:127 *51:149N	*55:43
74	180 bp	1070 bp	*51:157	*13:06, 13:53, 15:42, 15:86, 15:224, 35:60, 46:18, 54:01:01-54:02, 54:05N, 54:07- 54:08N, 54:10, 54:12-54:13, 54:17-54:25, 54:27-54:32, 54:34-54:35, 55:01:01-55:03, 55:05, 55:07, 55:10-55:12, 55:15-55:16, 55:18-55:19, 55:21, 55:25-55:26, 55:29- 55:31, 55:33-55:40, 55:42-55:45, 55:47- 55:48, 55:50, 55:52-55:57, 55:59-55:67, 55:69-55:78, 56:10, 56:23, 59:01:01-01- 59:01:01:02, 59:05-59:08, C*01:90, C*15:128
75^{5,7}	95 bp	1070 bp	*51:56:01-51:56:03, 51:158:01-51:158:02	*35:01:10, 35:04:02, 40:28, 49:18:01, 50:14, 53:28, 55:01:04, C*02:02:23, C*12:03:31
76	175 bp 255 bp	1070 bp	*51:168 *51:152, 51:173Q	
77⁸	265 bp	1070 bp	*51:160	
78	190 bp	800 bp	*51:184N	
79	235 bp	1070 bp	*51:187	*53:20
80	235 bp	1070 bp	*51:64, 51:148	*07:20, 07:24, 07:60, 07:100, 07:131, 07:220, 07:223, 08:21, 08:25, 15:07:01- 15:07:03, 15:45, 15:55, 15:68, 15:126, 15:197:02, 15:207, 15:324, 15:329, 15:331, 15:360, 15:383, 35:05:01-35:05:03, 35:22, 35:51, 35:58, 35:72, 35:89, 35:97, 35:114, 35:199, 35:232, 40:05, 40:71, 40:174, 44:54, 44:106, 44:135, 44:158, 44:184, 44:213, 46:12, 53:14, 55:51, 58:18,

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

				C*03:05, C*03:25, C*03:27, C*03:167, C*03:296
81 ⁷	185 bp 215 bp	1070 bp	*51:98N *51:167	
82	400 bp	1070 bp	*51:193	*48:02:02-48:02:03, 81:03
83 ⁹	-	-	Negative Control	

¹Alleles are assigned by the presence of specific PCR product(s). However, the sizes of the specific PCR products may be helpful in the interpretation of HLA-B*51 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, e.g. the primers in wells number 4, 5, 6, 7, 8, 9, 15, 17, 18 and 19 have a higher tendency of giving rise to nonspecific amplifications than other primers.

PCR fragments longer than the control bands may sometimes be observed. Such bands should be disregarded and do not influence the interpretation of the SSP typings. PCR fragments migrating faster than the control bands, but slower than a 400 bp fragment may be seen in some gel read-outs. Such bands can be disregarded and do not influence the interpretation of the SSP typings. Some primers may give rise to primer oligomer artifacts. Sometimes this phenomenon is an inherent feature of the primer pair(s) of a primer mix. More often it is due to other factors such as too low amount of DNA in the PCR reactions, taking too long time in setting up the PCR reactions, working at elevated room temperature or using thermal cyclers that are not pre-heated.

²The internal positive control primer pairs amplify segments of the human growth hormone gene. The internal positive control bands are 1070 or 800 base pairs respectively, well distribution as outlined in the table. Well number 1 contains the shorter, 800 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 HLA Class I alleles 1st and/or 4th exon(s) and beyond, as well as intron nucleotide sequences, are not 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. Assumption is made that unknown sequences in these regions are conserved within allelic groups.

⁴Due to the sharing of sequence motifs between HLA-B alleles, non-HLA-B*51 alleles will be amplified by primer mixes 1 to 3, 5 to 11, 14 to 32, 34 to 36, 38 to 41, 44, 46 to 50, 52 to 54, 56, 57, 60 to 65, 71 to 75, 79, 80 and 82. In addition, a few HLA-A and HLA-C alleles will be amplified by primer mixes 2, 3, 5, 7, 10, 16, 19, 24, 26, 27, 30 to 32, 34, 35, 38, 41, 44, 48, 50, 56, 61, 69, 74, 75 and 80.

⁵HLA-specific PCR products shorter than 125 base pairs have a lower intensity and are less sharp than longer PCR products.

⁶Primer mixes 6 and 30 may give rise to a lower yield of HLA-specific PCR product than the other HLA-B*51 primer mixes.

⁷Primer mixes 25, 30, 39, 41, 65, 75 and 81 may have tendencies of unspecific amplifications.

⁸Primer mixes 27, 39, 58, 60 and 77 have a tendency of giving rise to primer oligomer formation.

⁹Primer mix 83 contains a negative control, which will amplify more than 95% of HLA amplicons as well as the amplicons generated by the control primer pairs matching the human growth hormone gene. HLA-specific PCR product sizes range from 75 to 200 base pairs and the PCR product generated by the HGH positive control primer pair is 430 base pairs.

‘w’, might be weakly amplified.

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

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

PRIMER SPECIFICATION

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec.	105	95	265	255	270	210	240	105	85	160	245	495
PCR product							270		205	245		
Length of int.	800	1070	1070	1070	1070	800	1070	800	1070	1070	1070	1070
pos. control ¹												
5'-primer(s) ²	206	527	357	357	355	357	355	206	408	357	357	3 ^d I
	5'-gAC 3'	5'-TgA 3'	5'-Tgg 3'	5'-Tgg 3'	5'-TCA 3'	5'-Tgg 3'	5'-CCC 3'	5'-gAC 3'	5'-ggT 3'	5'-Tgg 3'	5'-Tgg 3'	5'-CTT 3'
							385		431			
							5'-ggA 3'		5'-CgA 3'			
									540			
									5'-gAC 3'			
3'-primer(s) ³	272	583	583	571	583	527	583	272	583	477	559	621
	5'-TgA 3'	5'-gTg 3'	5'-gTA 3'	5'-CCC 3'	5'-gTg 3'	5'-CCA 3'	5'-gTg 3'	5'-Tgg 3'	5'-gTg 3'	5'-gCg 3'	5'-CTC 3'	5'-ggg 3'
						527				559		
						5'-CCA 3'			5'-CgT 3'			
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

Well No.	13	14	15	16	17	18	19	20	21	22	23	24
Length of spec.	200	105	100	170	105	140	145	110	130	160	210	210
PCR product			230	195		220		200	185			
Length of int.	1070	1070	800	1070	800	800	800	1070	1070	1070	1070	1070
pos. control ¹												
5'-primer(s) ²	165	357	357	404	206	141	357	141	357	141	141	141
	5'-ACC 3'	5'-Tgg 3'	5'-Tgg 3'	5'-CCC 3'	5'-gAC 3'	5'-ATT 3'	5'-Tgg 3'	5'-ATT 3'	5'-Tgg 3'	5'-ATT 3'	5'-ATT 3'	5'-ATT 3'
				420		357						
				5'-TTA 3'		5'-Tgg 3'						
				431								
				5'-CgA 3'								
3'-primer(s) ³	322	419	414	559	272	242	463	211	445	259	311	309
	5'-gTC 3'	5'-CgA 3'	5'-TgT 3'	5'-CAg 3'	5'-TgC 3'	5'-CCC 3'	5'-gCg 3'	5'-ggT 3'	5'-ggA 3'	5'-gTT 3'	5'-ggT 3'	5'-ATC 3'
			544			538		302	502			
			5'-ggT 3'			5'-gTC 3'		5'-ggC 3'	5'-CTA 3'			
			544									
			5'-ggT 3'									
Well No.	13	14	15	16	17	18	19	20	21	22	23	24

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

Well No.	25	26	27	28	29	30	31	32	33	34	35	36
Length of spec.	120	105	140	205	245	105	105	165	195	260	225	110
PCR product	175	155	205	255			225					215
	205		270									
			345									
Length of int.	800	1070	800	1070	1070	800	1070	1070	1070	1070	1070	1070
pos. control ¹												
5'-primer(s) ²	357	357	49	49	357	369	357	435	141	355	355	133
	5'-Tgg 3'	5'-Tgg 3'	5'-CAg 3'	5'-CAg 3'	5'-Tgg 3'	5'-TAC 3'	5'-Tgg 3'	5'-AAA 3'	5'-ATT 3'	5'-TCA 3'	5'-TCA 3'	5'-CCg 3'
	652	756	355	357		369						704
	5'-CCg 3'	5'-ACT 3'	5'-TCA 3'	5'-Tgg 3'		5'-TAC 3'						5'-TgT 3'
			485									
			5'-CAA 3'									
3'-primer(s) ³	445	419	83	83	559	435	419	559	295	572	538	309
	5'-ggA 3'	5'-Cgg 3'	5'-TgA 3'	5'-TgA 3'	5'-CAg 3'	5'-TCT 3'	5'-Cgg 3'	5'-CTC 3'	5'-TCA 3'	5'-gCg 3'	5'-gTC 3'	5'-ATC 3'
	523	419	226	572	559		419					774
	5'-ACA 3'	5'-CgA 3'	5'-CAC 3'	5'-gCg 3'	5'-CAg 3'		5'-CgA 3'					5'-ggT 3'
	727	872	583				539					
	5'-CCA 3'	5'-TCA 3'	5'-gTg 3'				5'-TCC 3'					
	787											
	5'-TCC 3'											
Well No.	25	26	27	28	29	30	31	32	33	34	35	36

Well No.	37	38	39	40	41	42	43	44	45	46	47	48
Length of spec.	165	205	250	185	225	100	115	285	145	80	125	95
PCR product	225	250			305	135	215	385	190	170		220
					380							
Length of int.	1070	1070	1070	1070	1070	800	800	800	1070	800	800	1070
pos. control ¹												
5'-primer(s) ²	141	374	362	165	357	106	141	106	141	103	209	357
	5'-ATT 3'	5'-CTA 3'	5'-gAC 3'	5'-ACC 3'	5'-Tgg 3'	5'-CCA 3'	5'-ATT 3'	5'-CCA 3'	5'-ATT 3'	5'-CCT 3'	5'-ggA 3'	5'-Tgg 3'
	357	419	363		670	488		667		357		
	5'-Tgg 3'	5'-gTC 3'	5'-AgC 3'		5'-CCT 3'	5'-Cgg 3'		5'-AgA 3'		5'-Tgg 3'		
			383		736			754				
			5'-ggA 3'		5'-gCA 3'			5'-ACg 3'				
					754							
					5'-ACg 3'							
3'-primer(s) ³	265	583	583	309	539	163	214	343	244	141	292	412
	5'-CTA 3'	5'-gTg 3'	5'-gTg 3'	5'-ATC 3'	5'-TCC 3'	5'-ggC 3'	5'-CCA 3'	5'-T 3'	5'-CTA 3'	5'-gCA 3'	5'-gTC 3'	5'-gTC 3'
	539				916	583	314	916	292	487	292	412
	5'-TCT 3'				5'-gAT 3'	5'-gTg 3'	5'-gCC 3'	5'-gAT 3'	5'-gTg 3'	5'-Cgg 3'	5'-gTC 3'	5'-gTC 3'
												538
												5'-CCA 3'
Well No.	37	38	39	40	41	42	43	44	45	46	47	48

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

Well No.	49	50	51	52	53	54	55	56	57	58	59	60
Length of spec. PCR product	160	155	85 135 215	160	135 165 260	120 250	75 200	380	145 210	170	120 240	85 190
Length of int. pos. control ¹	1070	1070	800	1070	1070	1070	1070	1070	1070	1070	1070	800
5'-primer(s) ²	142	363	97	454	357	193	141	317	141	448	141	357
	5'-TCg 3'	5'-AgC 3'	5'-TCg 3'	5'-ACC 3'	5'-Tgg 3'	5'-CCA 3'	5'-ATT 3'	5'-gCT 3'	5'-ATT 3'	5'-CCA 3'	5'-ATT 3'	5'-Tgg 3'
			357	475		368	357		142	454	357	
			5'-Tgg 3'	5'-CCA 3'		5'-gTg 3'	5'-Tgg 3'		5'-TCg 3'	5'-ACC 3'	5'-Tgg 3'	
						385				457		
						5'-ggA 3'				5'-AgC 3'		
3'-primer(s) ³	259	477	141	583	453	272	177	412	244	583	218	403
	5'-gTT 3'	5'-gCg 3'	5'-gCA 3'	5'-gTg 3'	5'-TCT 3'	5'-TgA 3'	5'-AAA 3'	5'-gTT 3'	5'-CTA 3'	5'-gTg 3'	5'-gCC 3'	5'-gCA 3'
	259		453		479	583	514		246		555	505
	5'-gTT 3'		5'-TCT 3'		5'-CgA 3'	5'-gTg 3'	5'-CTg 3'		5'-TAA 3'		5'-CCg 3'	5'-gCC 3'
			530		481				309			505
			5'-CCT 3'		5'-gTg 3'				5'-gTg 3'			5'-gCT 3'
					578							
					5'-TgA 3'							
Well No.	49	50	51	52	53	54	55	56	57	58	59	60

Well No.	61	62	63	64	65	66	67	68	69	70	71	72
Length of spec. PCR product	100	180	70	115	185	175	110	160	105	160	185	90
	210	250	200	170	215	210	230	190	225			145 170
Length of int. pos. control ¹	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070
5'-primer(s) ²	357	357	397	138	97	357	141	121	141	154	357	267
	5'-Tgg 3'	5'-Tgg 3'	5'-gCT 3'	5'-TTg 3'	5'-TCC 3'	5'-Tgg 3'	5'-ATT 3'	5'-gCT 3'	5'-ATT 3'	5'-ACA 3'	5'-Tgg 3'	5'-Ag 3'
			411	145	127		435	154		155		646
			5'-CAA 3'	5'-CAA 3'	5'-ggT 3'		5'-AAA 3'	5'-ACA 3'		5'-CgC 3'		5'-ACg 3'
			529	200								670
			5'-AgA 3'	5'-TCg 3'								5'-CCT 3'
3'-primer(s) ³	418	493	559	272	272	488	331	272	206	272	494	317
	5'-gTC 3'	5'-CCT 3'	5'-CAg 3'	5'-TgA 3'	5'-TgA 3'	5'-CCA 3'	5'-CTC 3'	5'-TgA 3'	5'-CCA 3'	5'-TgA 3'	5'-TCg 3'	5'-ggA 3'
	527	496				496	506		327		505	774
	5'-CCg 3'	5'-gAC 3'				5'-gAC 3'	5'-TgA 3'		5'-TTC 3'		5'-gCT 3'	5'-ggT 3'
	528	565				526						
	5'-gCA 3'	5'-CAT 3'				5'-CTT 3'						
Well No.	61	62	63	64	65	66	67	68	69	70	71	72

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

Well No.	73	74	75	76	77	78	79	80	81	82
Length of spec.	170	180	95	175	265	190	235	235	185	400
PCR product	295			255					215	
Length of int.	1070	1070	1070	1070	1070	800	1070	1070	1070	1070
pos. control ¹										
5'-primer(s) ²	357	420	379	362	266	166	77	363	96	652
	5'-Tgg 3'	5'-TTA 3'	5'-ACC 3'	5'-gAA 3'	5'-ACg 3'	5'-CCT 3'	5'-CTT 3'	5'-AgC 3'	5'-TTA 3'	5'-CCg 3'
			379	374					127	
			5'-ACT 3'	5'-CTA 3'					5'-ggT 3'	
				448						
				5'-CCA 3'						
3'-primer(s) ³	479	559	435	583	2 nd I	317	272	559	272	916
	5'-CgA 3'	5'-CgT 3'	5'-TCT 3'	5'-gTg 3'	5'-TCg 3'	5'-ggA 3'	5'-TgA 3'	5'-CAg 3'	5'-TgA 3'	5'-gAC 3'
	487									
	5'-CgT 3'									
	610									
	5'-C.g 3'									
Well No.	73	74	75	76	77	78	79	80	81	82

¹The internal positive control primer pairs amplify segments of the human growth hormone gene. The internal positive control bands are 1070 or 800 base pairs respectively, well distribution as outlined in the table. Well number 1 contains the shorter, 800 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.

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

CELL LINE VALIDATION SHEET															
HLA-B*51 SSP subtyping kit															
				Well ²											
				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
				97	98	99	100	101	102	103	104	105	106	107	108
				109	110	111	112	113	114	115	116	117	118	119	120
				121	122	123	124	125	126	127	128	129	130	131	132
				133	134	135	136	137	138	139	140	141	142	143	144
				145	146	147	148	149	150	151	152	153	154	155	156
				157	158	159	160	161	162	163	164	165	166	167	168
				169	170	171	172	173	174	175	176	177	178	179	180
				181	182	183	184	185	186	187	188	189	190	191	192
				193	194	195	196	197	198	199	200	201	202	203	204
				205	206	207	208	209	210	211	212	213	214	215	216
				217	218	219	220	221	222	223	224	225	226	227	228
				229	230	231	232	233	234	235	236	237	238	239	240
				241	242	243	244	245	246	247	248	249	250	251	252
				253	254	255	256	257	258	259	260	261	262	263	264
				265	266	267	268	269	270	271	272	273	274	275	276
				277	278	279	280	281	282	283	284	285	286	287	288
				289	290	291	292	293	294	295	296	297	298	299	300
				301	302	303	304	305	306	307	308	309	310	311	312
				313	314	315	316	317	318	319	320	321	322	323	324
				325	326	327	328	329	330	331	332	333	334	335	336
				337	338	339	340	341	342	343	344	345	346	347	348
				349	350	351	352	353	354	355	356	357	358	359	360
				361	362	363	364	365	366	367	368	369	370	371	372
				373	374	375	376	377	378	379	380	381	382	383	384
				385	386	387	388	389	390	391	392	393	394	395	396
				397	398	399	400	401	402	403	404	405	406	407	408
				409	410	411	412	413	414	415	416	417	418	419	420
				421	422	423	424	425	426	427	428	429	430	431	432
				433	434	435	436	437	438	439	440	441	442	443	444
				445	446	447	448	449	450	451	452	453	454	455	456
				457	458	459	460	461	462	463	464	465	466	467	468
				469	470	471	472	473	474	475	476	477	478	479	480
				481	482	483	484	485	486	487	488	489	490	491	492
				493	494	495	496	497	498	499	500	501	502	503	504
				505	506	507	508	509	510	511	512	513	514	515	516
				517	518	519	520	521	522	523	524	525	526	527	528
				529	530	531	532	533	534	535	536	537	538	539	540
				541	542	543	544	545	546	547	548	549	550	551	552
				553	554	555	556	557	558	559	560	561	562	563	564
				565	566	567	568	569	570	571	572	573	574	575	576
				577	578	579	580	581	582	583	584	585	586	587	588
				589	590	591	592	593	594	595	596	597	598	599	600
				601	602	603	604	605	606	607	608	609	610	611	612
				613	614	615	616	617	618	619	620	621	622	623	624
				625	626	627	628	629	630	631	632	633	634	635	636
				637	638	639	640	641	642	643	644	645	646	647	648
				649	650	651	652	653	654	655	656	657	658	659	660
				661	662	663	664	665	666	667	668	669	670	671	672
				673	674	675	676	677	678	679	680	681	682	683	684
				685	686	687	688	689	690	691	692	693	694	695	696
				697	698	699	700	701	702	703	704	705	706	707	708
				709	710	711	712	713	714	715	716	717	718	719	720
				721	722	723	724	725	726	727	728	729	730	731	732
				733	734	735	736	737	738	739	740	741	742	743	744
				745	746	747	748	749	750	751	752	753	754	755	756
				757	758	759	760	761	762	763	764	765	766	767	768
				769	770	771	772	773	774	775	776	777	778	779	780
				781	782	783	784	785	786	787	788	789	790	791	792
				793	794	795	796	797	798	799	800	801	802	803	804
				805	806	807	808	809	810	811	812	813	814	815	816
				817	818	819	820	821	822	823	824	825	826	827	828
				829	830	831	832	833	834	835	836	837	838	839	840
				841	842	843	844	845	846	847	848	849	850	851	852
				853	854	855	856	857	858	859	860	861	862	863	864
				865	866	867	868	869	870	871	872	873	874	875	876
				877	878	879	880	881	882	883	884	885	886	887	888
				889	890	891	892	893	894	895	896	897	898	899	900
				901	902	903	904	905	906	907	908	909	910	911	912
				913	914	915	916	917	918	919	920	921	922	923	924
				925	926	927	928	929	930	931	932	933	934	935	936
				937	938	939	940	941	942	943	944	945	946	947	948
				949	950	951	952	953	954	955	956	957	958	959	960
				961	962	963	964	965	966	967	968	969	970	971	972
				973	974	975	976	977	978	979	980	981	982	983	984
				985	986	987	988	989	990	991	992	993	994	995	996

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

CELL LINE VALIDATION SHEET																							
HLA-B*51 SSP subtyping kit																							
					Prod. No.:	Well ²																	
						17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
						201444517	201444518	201444519	201558520	201444521	201444522	201444523	201444524	201444525	201444526	201444527	201444528	201444529	201444530	201675831	201444532		
	IHCW cell line ¹		B*																				
1	9001	SA	*07:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
2	9280	LK707	*52:01	*73:01		-	-	+	-	-	-	-	-	-	+	-	-	+	-	-			
3	9011	E4181324	*52:01			-	-	-	-	-	-	-	-	-	-	-	-	+	-	-			
4	9275	GU373	*15:10	*53:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
5	9009	KAS011	*37:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
6	9353	SM	*39:01	*51:01		-	-	-	-	-	+	-	+	-	-	-	-	+	-	-			
7	9020	QBL	*18:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
8	9025	DEU	*35:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
9	9026	YAR	*38:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
10	9107	LKT3	*54:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
11	9051	PITOUT	*44:03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
12	9052	DBB	*57:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
13	9004	JESTHOM	*27:05			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
14	9071	OLGA	*15:01	*15:20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
15	9075	DKB	*40:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
16	9037	SWEIG007	*40:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
17	9282	CTM3953540	*08:01	*55:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
18	9257	32367	*14:01	*56:01		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-			
19	9038	BM16	*18:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
20	9059	SLE005	*40:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
21	9064	AMALA	*15:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
22	9056	KOSE	*35:03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
23	9124	IHL	*40:02	*56:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
24	9035	JBUSH	*38:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
25	9049	IBW9	*14:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
26	9285	WT49	*58:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
27	9191	CH1007	*07:05	*51:01		-	-	-	-	-	+	-	+	-	-	-	-	+	-	-			
28	9320	BEL5GB	*44:02	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
29	9050	MOU	*44:03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
30	9021	RSH	*42:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
31	9019	DUCAF	*18:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
32	9297	HAG	*41:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
33	9098	MT14B	*40:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
34	9104	DHIF	*38:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
35	9302	SSTO	*44:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
36	9024	KT17	*15:01	*35:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
37	9065	HHKB	*07:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
38	9099	LZL	*15:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
39	9315	CML	*08:01	*27:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
40	9134	WHONP199	*13:02	*46:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
41	9055	H0301	*14:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
42	9066	TAB089	*46:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
43	9076	T7526	*46:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
44	9057	TEM	*38:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
45	9239	SHJO	*42:01	*50:01		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-			
46	9013	SCHU	*07:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
47	9045	TUBO	*51:01			-	-	-	-	-	+	-	+	-	-	-	-	+	-	-			
48	9303	TER-ND	*35:01	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			

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

Lot-specific information

[illegible]

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

Lot-specific information

[illegible]

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

CELL LINE VALIDATION SHEET																					
HLA-B*51 SSP subtyping kit																					
					Prod. No.:	Well ²															
						65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
						201444565	201444566	201444567	201444568	201444569	201444570	201444571	201444572	201558573	201444574	201444575	201558576	201558577	201558578	201558579	201675880
	IHC cell line ¹		B*																		
1	9001	SA	*07:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	9280	LK707	*52:01	*73:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3	9011	E4181324	*52:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	9275	GU373	*15:10	*53:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5	9009	KAS011	*37:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	9353	SM	*39:01	*51:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7	9020	QBL	*18:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8	9025	DEU	*35:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9	9026	YAR	*38:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	9107	LKT3	*54:01			-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	
11	9051	PITOUT	*44:03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	9052	DBB	*57:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13	9004	JESTHOM	*27:05			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14	9071	OLGA	*15:01	*15:20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
15	9075	DKB	*40:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
16	9037	SWEIG007	*40:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
17	9282	CTM3953540	*08:01	*55:01		-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	
18	9257	32367	*14:01	*56:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
19	9038	BM16	*18:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20	9059	SLE005	*40:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
21	9064	AMALA	*15:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
22	9056	KOSE	*35:03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
23	9124	IHL	*40:02	*56:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
24	9035	JBUSH	*38:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	9049	IBW9	*14:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26	9285	WT49	*58:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
27	9191	CH1007	*07:05	*51:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
28	9320	BEL5GB	*44:02	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
29	9050	MOU	*44:03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30	9021	RSH	*42:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
31	9019	DUCAF	*18:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
32	9297	HAG	*41:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
33	9098	MT14B	*40:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
34	9104	DHIF	*38:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	9302	SSTO	*44:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
36	9024	KT17	*15:01	*35:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
37	9065	HHKB	*07:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
38	9099	LZL	*15:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
39	9315	CML	*08:01	*27:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
40	9134	WHONP199	*13:02	*46:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
41	9055	H0301	*14:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
42	9066	TAB089	*46:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
43	9076	T7526	*46:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44	9057	TEM	*38:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
45	9239	SHJO	*42:01	*50:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
46	9013	SCHU	*07:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
47	9045	TUBO	*51:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
48	9303	TER-ND	*35:01	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

Lot-specific information

CELL LINE VALIDATION SHEET						
HLA-B*51 SSP subtyping kit						
					Well ²	
					81	82
				Prod. No.:	201675881	201675882
	IHCW cell line ¹		B*			
1	9001	SA	*07:02		-	-
2	9280	LK707	*52:01	*73:01	-	-
3	9011	E4181324	*52:01		-	-
4	9275	GU373	*15:10	*53:01	-	-
5	9009	KAS011	*37:01		-	-
6	9353	SM	*39:01	*51:01	-	-
7	9020	QBL	*18:01		-	-
8	9025	DEU	*35:01		-	-
9	9026	YAR	*38:01		-	-
10	9107	LKT3	*54:01		-	-
11	9051	PITOUT	*44:03		-	-
12	9052	DBB	*57:01		-	-
13	9004	JESTHOM	*27:05		-	-
14	9071	OLGA	*15:01	*15:20	-	-
15	9075	DKB	*40:01		-	-
16	9037	SWEIG007	*40:02		-	-
17	9282	CTM3953540	*08:01	*55:01	-	-
18	9257	32367	*14:01	*56:01	-	-
19	9038	BM16	*18:01		-	-
20	9059	SLE005	*40:01		-	-
21	9064	AMALA	*15:01		-	-
22	9056	KOSE	*35:03		-	-
23	9124	IHL	*40:02	*56:02	-	-
24	9035	JBUSH	*38:01		-	-
25	9049	IBW9	*14:02		-	-
26	9285	WT49	*58:01		-	-
27	9191	CH1007	*07:05	*51:01	-	-
28	9320	BEL5GB	*44:02	*44:03	-	-
29	9050	MOU	*44:03		-	-
30	9021	RSH	*42:01		-	-
31	9019	DUCAF	*18:01		-	-
32	9297	HAG	*41:02		-	-
33	9098	MT14B	*40:01		-	-
34	9104	DHIF	*38:01		-	-
35	9302	SSTO	*44:02		-	-
36	9024	KT17	*15:01	*35:01	-	-
37	9065	HHKB	*07:02		-	-
38	9099	LZL	*15:01		-	-
39	9315	CML	*08:01	*27:05	-	-
40	9134	WHONP199	*13:02	*46:01	-	-
41	9055	H0301	*14:02		-	-
42	9066	TAB089	*46:01		-	-
43	9076	T7526	*46:01		-	-
44	9057	TEM	*38:01		-	-
45	9239	SHJO	*42:01	*50:01	-	-
46	9013	SCHU	*07:02		-	-
47	9045	TUBO	*51:01		-	-
48	9303	TER-ND	*35:01	*44:03	-	-

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: 7E5

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 5, 13, 17, 20, 21, 25, 27, 32, 33, 36, 39, 42 to 46, 51 to 53, 55, 57 to 62, 64, 66 to 73, 75 to 79 and 81 and 82 were available. The specificities of the primers in primer solutions 5, 17, 20, 27, 32, 39, 42, 44, 46, 51, 57, 61, 67, 75, 77 and 82 were tested by separately adding one or two additional 5'-primers, respectively one, two or three additional 3'-primers.

In primer solutions 13, 21, 25, 33, 43, 45, 53, 55, 59, 60, 62, 66, 69, 71 and 73 it was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solutions 36, 52, 58, 64, 68, 70, 72, 76, 78, 79 and 81 it was only possible to test the 3'-primers, the 5'-primers were not possible to test. In primer solutions 7, 9, 16, 38, 39, 41, 42, 44, 54, 63, 65 and 75 one, two or three of the 5'-primers were not possible to test. In primer solution 15, 18, 20, 26 to 28, 42, 46, 51, 57, 61 and 67 one or two of the 3'-primers were not possible to test. Additional primers in primer solutions 18, 26, 28, 29, 31, 37, 41, 47, 48 and 54 were tested by separately adding one 5'-primer and/or one 3'-primer.

101.561-24/03 – including *Taq* pol., IFU-01
101.561-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **7E5**

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: olerup-se@caredx.com

Web page: <http://www.olerup.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: olerup-at@caredx.com

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

Olerup Inc., 901 S. Bolmar St., Suite R, West Chester, PA 19382

Tel: 1-877-OLERUP1

Fax: 610-344-7989

E-mail: olerup-us@caredx.com

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

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