

Olerup SSP® HLA-C high resolution for frequent alleles

Product number:	101.707-12 – including <i>Taq</i> polymerase 101.707-12u – without <i>Taq</i> polymerase
Lot number:	9D5
Expiry date:	2019-01-01
Number of tests:	12
Number of wells per test:	95 + 1

The HLA-C High kit has been redesigned and improved with regards to allelic detection and discrimination. The kit resolution focuses on common and well documented (CWD) alleles¹.

CHANGES COMPARED TO THE PREVIOUS OLERUP SSP® HLA-C HIGH RESOLUTION LOT (95V)

Well	5'-primer	3'-primer	rationale
3	Added	Added	5'-primer added for the C*08:99 allele, 3'-primer added for the C*01:27 allele.
5	-	Added	3'-primer added for the C*06:27 allele.
16	-	Added	3'-primers added for the C*07:104N and C*15:22 alleles.
17	-	Added	3'-primer added for the C*07:56:02 allele.
18	Added	-	5'-primer added for the C*03:14 allele.
19	Added	-	5'-primer added for the C*03:14 allele.
20	-	Added	3'-primer added for increased yield of the C*02:02:01 allele.
34	-	Added	3'-primer added for the C*04:27 allele.
36	Added	-	5'-primer added for the C*03:88 allele.
43	-	Added	3'-primers added for the C*06:27 and C*07:56:02 alleles.
49	Exchanged	Exchanged	Primer pair exchanged for the C*06:76:01-06:76:02 and C*12:04:01-12:04:02 alleles.
50	Added	Added	5'-primer added for the C*07:10 allele, 3'-primers added for the C*07:194 and C*07:61N alleles.
51	Added	-	5'-primers added for the C*07:32N and C*07:67 alleles.
55	-	Added	3'-primers added for the C*07:194, C*07:61N and C*07:72 alleles.
56	Added	-	5'-primer added for the C*07:10 allele.
58	Added	Added	Primer pair added for the C*04:82 allele.
59	Exchanged	Exchanged	Primer pair exchanged for the C*12:09 allele.
74	-	Added	3'-primer added for the C*01:27 allele.
78	Added	Added	Primer pair added for the C*07:349 allele.
80	Added	-	5'-primer added for the C*03:88 allele.

81	Added	Added	Primer pair added for the C*04:30 and C*08:102 alleles.
82	Added	Added	Primer pair added for the C*07:349 allele.
86	-	Added	3'-primer added for the C*07:72 allele.
88	Added	Added	Primer pair added for the C*08:22 allele, strength of control band has been optimized.
90	Added	Added	Primer pair added for the C*07:66 allele.
91	Added	-	5'-primer added for the C*07:67 allele.
92	Added	Added	Primer pair added for the C*07:419 allele.
93	-	Added	3'-primer added for the C*14:11 allele.

THE NUMBER OF WELLS is unchanged.

¹S. J. Mack¹, P. Cano², J. A. Hollenbach¹ et al.
 Common and well-documented HLA alleles: 2012 update to the CWD catalogue. Tissue Antigens, 2013, 81, 194–203

ALLELE COVERAGE:

C*01:02 to C*18:10, i.e. all the currently recognized HLA-C alleles, will be amplified by the primers in the HLA-C high resolution for frequent alleles subtyping kit^{1,2}; www.ebi.ac.uk/imgt/hla, 2016-January-19, release 3.23.0.

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

Alleles	Primer mix	Alleles	Primer mix
C*01:06, 01:11	3	C*06:08, 06:13	43
C*01:15, 01:20, 01:60	6	C*06:15-06:16N	78, 83
C*02:51, 02:57	31	C*07:22, 07:35, 07:404	56
C*03:06:01-03:06:02, 03:117	36	C*07:25, 07:137:01, 07:138, 07:352	56
C*03:09, 03:23, 03:287	18	C*07:30, 07:40	86
C*03:21-03:22Q, 03:116:01	18	C*07:33N, 07:51	55
C*03:34, 03:44	80	C*07:37, 07:54	2
C*03:37:01-03:37:02, 03:46	11	C*07:47-07:48	91
C*04:23, 04:31	88	C*12:06,12:81	65
C*05:10, 05:55	21	C*12:07 ,12:46N	16
C*05:14, 05:16, 05:19	37		

The HLA-C typing kit cannot distinguish the following silent mutations: the C*01:02:01-01:02:17, 01:02:19-01:02:31, 01:02:33 and 01:02:35-01:02:36 alleles, the C*01:12:01-01:12:02, 01:49:01-01:49:02 and 01:79:01-01:79:02 alleles, the C*02:02:01-02:02:03, 02:02:05-02:02:07, 02:02:09-02:02:11 and 02:02:14-02:02:20, 02:02:22-02:02:27 and 02:26:02-02:26:03 alleles, the C*02:02:30 and 02:26:01 alleles, the C*02:05:01-02:05:03 alleles, the C*02:06:01-02:06:02 alleles, the C*02:10:01:01-02:10:01:02 alleles, the C*02:27:01-02:27:02 alleles, the C*02:55:01-02:55:02 alleles, the C*03:02:01-03:02:07, 03:02:09 and 03:02:11-03:02:14 alleles, the C*03:03:01-03:03:20, 03:03:23-03:03:25 and 03:03:27-03:03:28 alleles, the C*03:04:01:01-03:04:14, 03:04:16-03:04:18, 03:04:20-03:04:24, 03:04:28-03:04:29, 03:04:31-03:04:33 and 03:04:35-03:04:49 alleles, the C*03:04:27 and 03:04:30 alleles, the C*03:06:01-03:06:02 alleles, the C*03:11:01-03:11:02

alleles, the C*03:37:01-03:37:02 alleles, the C*03:38:01-03:38:02 alleles, the C*03:40:01 and 03:40:03-03:40:04 alleles, the C*04:01:01-04:01:02, 04:01:04, 04:01:06, 04:01:08, 04:01:10-04:01:17, 04:01:19-04:01:21, 04:01:24, 04:01:27-04:01:28, 04:01:30-04:01:33, 04:01:35-04:01:42, 04:01:44-04:01:51, 04:01:53-04:01:67, 04:01:69-04:01:70 and 04:98:01-04:98:02 alleles, the C*04:01:05, 04:01:07, 04:01:09, 04:01:18, 04:01:22, 04:01:26, 04:01:68, 04:64:01-04:64:02 and 04:180:01 alleles, the C*04:15:01 and 04:15:03 alleles, the C*04:42:01-04:42:02 alleles, the C*05:01:01-05:01:11, 05:01:13-05:01:15, 05:01:19-05:01:21, 05:01:23, 05:01:25-05:01:26, 05:01:29-05:01:31 05:22:01-05:22:02 and 05:44:01-05:44:02 alleles, the C*05:01:16, 05:01:18 and 05:18:02-05:18:03 alleles, the C*05:04:01-05:04:02 alleles, the C*05:09:01 and 05:09:03 alleles, the C*05:64:01-05:64:02 alleles, the C*06:02:01-06:02:01:03, 06:02:03-06:02:07, 06:02:09-06:02:11, 06:02:13-06:02:15, 06:02:17-06:02:22, 06:02:24-06:02:37, 06:02:39-06:02:42, 06:02:44, 06:42:02, 06:43:02 and 06:106:01-06:106:02 alleles, the C*06:02:16, 06:02:43 and 06:127:01-06:127:02 alleles, the C*06:04:01-06:04:02 alleles, the C*06:53:01-06:53:02 alleles, the C*06:70:01-06:70:02 alleles, the C*06:132:01-06:132:02 alleles, the C*07:01:01-07:01:04, 07:01:06-07:01:12, 07:01:14-07:01:24, 07:01:26-07:01:35, 07:01:37-07:01:45, 07:01:47-07:01:52 and 07:78:01-07:78:02 alleles, the C*07:01:05 and 07:01:36 alleles, the C*07:02:01-07:02:08, 07:02:10-07:02:31, 07:02:33-07:02:41, 07:02:43-07:02:62, 07:02:64, 07:02:66-07:02:71 and 07:38:01-07:38:02 alleles, the 07:17:01-07:17:02 alleles, the C*07:04:01-07:04:10 and 07:199:01-07:199:02 alleles, the C*07:26:01-07:26:02 alleles, the C*07:27:01-07:27:02 alleles, the C*07:29:01-07:29:02 alleles, the C*07:31:01-07:31:02 alleles, the C*07:56:01-07:56:02 alleles, the C*07:76:01-07:76:02 alleles, the C*07:96:01-07:96:02 alleles, the C*07:108:01-07:108:02 alleles, the C*07:141:01-07:141:02 alleles, the C*07:172:01-07:172:02 alleles, the C*08:01:01-08:01:06, 08:01:08-08:01:13, 08:01:15-08:01:18 and 08:16:02 alleles, the C*08:02:01-08:02:02, 08:02:04-08:02:06, 08:02:08-08:02:10 and 08:02:12 alleles, the C*08:03:01-08:03:03 alleles, the C*08:04:01-08:04:03 alleles, the C*12:02:01-12:02:05, 12:02:07, 12:02:09-12:02:10 and 12:02:13 alleles, the C*12:02:06, 12:02:08 and 12:02:12 alleles, the C*12:03:01-12:03:01:03, 12:03:03, 12:03:05-12:03:07, 12:03:11-12:03:12, 12:03:14-12:03:15, 12:03:17-12:03:18, 12:03:21-12:03:22, 12:03:25-12:03:29, 12:03:31, 12:03:33 and 12:03:35-12:03:37 alleles, the C*12:03:02, 12:03:08, 12:03:16 and 12:03:30 alleles, the C*12:03:19 and 12:03:32 alleles, the C*12:03:34:01-12:03:34:02 alleles, the C*12:10:01-12:10:02 alleles, the C*12:14:01 and 12:18:02, the C*12:14:02 and 12:18:01 alleles, the C*14:02:01, 14:02:04-14:02:07, 14:02:09 and 14:02:12-14:02:19 alleles, the C*15:02:01-15:02:08, 15:02:11-15:02:16, 15:02:19-15:02:20 and 15:02:23-15:02:24 alleles, the C*15:02:10 and 15:02:17 alleles, the C*15:02:18 and 15:02:22, the C*15:04:01-15:04:02 alleles, the C*15:05:01-15:05:08 and 15:05:10 alleles, the C*15:06:01-15:06:03 alleles, the C*15:10:02-15:10:03 alleles, the C*16:01:01-16:01:01:02, 16:01:03-16:01:04, 16:01:07-16:01:15 and 16:01:18-16:01:19 alleles, the C*16:01:05, 16:07:02 alleles, the C*16:02:01-16:02:10 and 16:02:12 alleles, C*16:04:01 and 16:04:03 alleles, and the C*17:01:01-17:01:03, 17:01:05-17:01:07 and 17:01:09-17:01:11 alleles.

¹Alleles 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>.