

101.547-06 – including *Taq* polymerase  
101.547-06u – without *Taq* polymerase

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

Lot No.: **7R7**

Lot-specific information  
**Olerup SSP<sup>®</sup> HLA-B\*49**

<b>Product number:</b>	101.547-06 – including <i>Taq</i> polymerase 101.547-06u – without <i>Taq</i> polymerase
<b>Lot number:</b>	7R7
<b>Expiry date:</b>	2027-02-01
<b>Number of tests:</b>	6
<b>Number of wells per test:</b>	22+1
<b>Storage - pre-aliquoted primers:</b>	dark, between -15°C and -25°C
- PCR Master Mix:	between -15°C and -25°C
- Adhesive PCR seals	RT

**This Product Description is only valid for Lot No. 7R7.**

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

**CHANGES COMPARED TO THE PREVIOUS OLERUP SSP<sup>®</sup>  
HLA-B\*49 Lot (8L4)**

- The product documentation has been updated for new alleles of IMGT 3.51.0.
- The kit resolution focuses on common and well documented (CWD) alleles<sup>1</sup>.

<sup>1</sup>As described in section Uniquely Identified Alleles.

The HLA-B\*49 specificity and interpretation tables have been updated for the HLA-B alleles described since the previous *Olerup SSP<sup>®</sup>* HLA-B\*49 lot was made (**Lot No. 8L4**).

The primers of the wells detailed below have been exchanged, added or modified compared to the previous lot (**Lot No. 8L4**).

Well	5'-primer	3'-primer	rationale
22	Added	Added	New primer pair for the *49:73 allele. Negative control moved to vial 23.

<sup>1</sup>S. J. Mack, P. Cano, J. A. Hollenbach et al.  
Common and well-documented HLA alleles: 2012 update to the CWD catalogue. *Tissue Antigens*, 2013, 81, 194–203



**0197**

For *In Vitro* Diagnostic Use  
MA123 v02 SSP PI Template  
Date: March 2023, Rev. No: 00

101.547-06 – including *Taq* polymerase  
101.547-06u – without *Taq* polymerase

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

Lot No.: **7R7**

Lot-specific information

Well **23** contains Negative Control primer pairs, that will amplify the majority of the *Olerup* SSP<sup>®</sup> 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 200 base pairs.

Length of PCR product	105	200	105	80	75	80	85
<b>5'-primer<sup>1</sup></b>	<b>164</b>	<b>340</b>	<b>440</b>	<b>45</b>	<b>45</b>	<b>43</b>	<b>36</b>
	5'-CAC <sup>3'</sup>	5'-Agg <sup>3'</sup>	5'-TTA <sup>3'</sup>	5'-Tgg <sup>3'</sup>	5'-Tgg <sup>3'</sup>	5'-Tgg <sup>3'</sup>	5'-TAC <sup>3'</sup>
							<b>36</b>
							5'-TAT <sup>3'</sup>
<b>3'-primer<sup>2</sup></b>	<b>231</b>	<b>2<sup>nd</sup> I</b>	<b>507</b>	<b>59</b>	<b>58</b>	<b>57</b>	<b>47</b>
	5'-TgC <sup>3'</sup>	5'-AAA <sup>3'</sup>	5'-TTg <sup>3'</sup>	5'-CTC <sup>3'</sup>	5'-ggC <sup>3'</sup>	5'-CTC <sup>3'</sup>	5'-ACA <sup>3'</sup>
							<b>48</b>
							5'-gCA <sup>3'</sup>
							<b>48</b>
							5'-gCC <sup>3'</sup>
							<b>52</b>
							5'-TgT <sup>3'</sup>
<b>A*</b>	<b>+</b>	<b>+</b>	<b>+</b>				
<b>B*</b>	<b>+</b>	<b>+</b>	<b>+</b>				
<b>C*</b>	<b>+</b>	<b>+</b>	<b>+</b>				
<b>DRB1</b>				<b>+</b>	<b>+</b>		
<b>DRB3</b>				<b>+</b>	<b>+</b>		
<b>DRB5</b>				<b>+</b>			
<b>DQB1</b>					<b>+</b>		
<b>DPB1</b>						<b>+</b>	
<b>DQA1</b>							<b>+</b>

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

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



0197

For *In Vitro* Diagnostic Use  
MA123 v02 SSP PI Template  
Date: March 2023, Rev. No: 00

101.547-06 – including *Taq* polymerase  
101.547-06u – without *Taq* polymerase

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

Lot No.: **7R7**

Lot-specific information  
**PRODUCT DESCRIPTION**

**HLA-B\*49 SSP typing**

**CONTENT**

The primer set contains 5'- and 3'-primers for identifying the B\*49:01 to B\*49:78 alleles.

**PLATE LAYOUT**

Each HLA-B\*49 test consists of 23 PCR reactions in a 24 well cut PCR plate. Well 24 is empty.

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

The 24 well PCR plate is marked with ‘HLA-B\*49’ in silver/gray ink.

Well No. 1 is marked with the Lot No. ‘7R7’.

Wells 1 to 21 – HLA-B\*49 high resolution primers.

Well 22 – 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 24 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**

Due to the sharing of sequence motifs between HLA-B alleles non-HLA-B\*49 alleles will be amplified by some primer mixes. For further details see Specificity Table.

**UNIQUELY IDENTIFIED ALLELES**

All the HLA-B\*49 alleles, i.e. **B\*49:01 to B\*49:78**, recognized by the HLA Nomenclature Committee in January 2023<sup>1,2</sup> will be amplified by the primers in the HLA-B\*49 SSP kit<sup>3</sup>.

The HLA-B\*49 kit enables separation of the confirmed HLA-B\*49 alleles as listed in the IMGT/HLA database 3.25.0. 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\*49 alleles is listed below.

The HLA-B\*49 kit also enables identification of many null and alternatively expressed alleles.



**0197**

For *In Vitro* Diagnostic Use  
MA123 v02 SSP PI Template  
Date: March 2023, Rev. No: 00

101.547-06 – including *Taq* polymerase  
101.547-06u – without *Taq* polymerase

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

Lot No.: **7R7**

Lot-specific information

The following HLA-B\*49 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

Alleles	Primer mix
B*49:07, 49:21	9
B*49:08, 49:16	10
B*49:13, 49:14	15

<sup>1</sup>HLA-B alleles listed on the IMGT/HLA web page 2023-January-12, release 3.51.0, [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla).

<sup>2</sup>Alleles 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>.

<sup>3</sup>The following alleles will give rise to identical amplification patterns. These alleles can be distinguished by the HLA-B low resolution kit and/or the respective high-resolution kits.

**Alleles**

B\*49:73, B\*59:12



0197

For *In Vitro* Diagnostic Use  
MA123 v02 SSP PI Template  
Date: March 2023, Rev. No: 00

101.547-06 – including *Taq* polymerase  
101.547-06u – without *Taq* polymerase

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

Lot No.: **7R7**

Lot-specific information

## ALLELE CONFIRMATION STATUS

Allele	Status <sup>1</sup>	Allele	Status <sup>1</sup>	Allele	Status <sup>1</sup>
<b>B*49:01:01</b>	<b>Confirmed</b>	B*49:13	Unconfirmed	B*49:33	Unconfirmed
B*49:01:02	Unconfirmed	B*49:14	Unconfirmed	B*49:34	Unconfirmed
B*49:01:03	Unconfirmed	B*49:16	Unconfirmed	B*49:35	Unconfirmed
B*49:01:04	Unconfirmed	<b>B*49:17</b>	<b>Confirmed</b>	B*49:36	Unconfirmed
B*49:01:05	Unconfirmed	<b>B*49:18:01</b>	<b>Confirmed</b>	B*49:37	Unconfirmed
B*49:01:06	Unconfirmed	B*49:18:02	Unconfirmed	B*49:38	Unconfirmed
B*49:01:07	Unconfirmed	<b>B*49:19N</b>	<b>Confirmed</b>	B*49:39	Unconfirmed
B*49:01:08	Unconfirmed	B*49:20	Unconfirmed	B*49:40	Unconfirmed
<b>B*49:02</b>	<b>Confirmed</b>	<b>B*49:21</b>	<b>Confirmed</b>	B*49:41	Unconfirmed
B*49:03	Unconfirmed	B*49:22	Unconfirmed	B*49:42	Unconfirmed
B*49:04:01	Unconfirmed	<b>B*49:23</b>	<b>Confirmed</b>	B*49:43	Unconfirmed
B*49:04:02	Unconfirmed	B*49:24	Unconfirmed		
B*49:05	Unconfirmed	B*49:25	Unconfirmed		
B*49:06	Unconfirmed	B*49:26	Unconfirmed		
B*49:07	Unconfirmed	<b>B*49:27</b>	<b>Confirmed</b>		
B*49:08	Unconfirmed	B*49:28	Unconfirmed		
<b>B*49:09</b>	<b>Confirmed</b>	B*49:29	Unconfirmed		
B*49:10	Unconfirmed	B*49:30	Unconfirmed		
<b>B*49:11</b>	<b>Confirmed</b>	B*49:31	Unconfirmed		
B*49:12	Unconfirmed	B*49:32	Unconfirmed		

<sup>1</sup>Allele 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](http://www.ebi.ac.uk/imgt/hla).

## RESOLUTION IN HOMO- AND HETEROZYGOTES

Results file with resolution in HLA-B\*49 homo- and heterozygotes is available upon request.



0197

For *In Vitro* Diagnostic Use  
MA123 v02 SSP PI Template  
Date: March 2023, Rev. No: 00

101.547-06 – including *Taq* polymerase  
101.547-06u – without *Taq* polymerase

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

Lot No.: 7R7

Lot-specific information  
**SPECIFICITY TABLE**

**HLA-B\*49 SSP subtyping**

**Specificities and sizes of the PCR products of the 22+1 primer mixes used for HLA-B\*49 SSP subtyping**

Primer Mix	Size of spec. PCR product <sup>1</sup>	Size of control band <sup>2</sup>	Amplified HLA-B*49 alleles <sup>3</sup>	Other amplified HLA-B alleles
1	145 bp	800 bp	*49:01:01:01-49:01:24, 49:04:01-49:14, 49:16-49:25, 49:27-49:69, 49:71-49:72, 49:74-49:78	*40:13, 40:19, 40:109, 40:117, 40:292, 40:340, 40:394, 41:46, 41:60, 44:18:01:01-44:18:01:02, 44:25, 44:50:01, 44:50:03, 44:95, 44:355, 51:112, 53:30, 53:39, 57:45, 57:51, 57:69, 58:111
2	145 bp 190 bp 255 bp	800 bp	*49:06 *49:26 *49:02, 49:70	*35:419, 51:283, 58:13 *18:01:37, 39:31:01:01-39:31:01:02, 39:128 *13:23, 13:55, 18:09, 27:01, 27:142, 37:10, 40:47, 40:96, 40:157, 40:201, 44:15:01:01-44:15:01:02, 44:55, 44:103, 44:188, 44:212
3 <sup>4</sup>	115 bp  145 bp	800 bp	*49:22  *49:02, 49:70	*15:33, 15:248, 51:126, 57:54, 57:96, <b>C*03:87:01-03:87:02, C*03:414, C*05:27, C*05:39, C*05:184, C*08:115, C*08:182</b> *40:47, 40:96, 40:110, 40:157, 40:201, 44:02:01:01-44:02:12, 44:02:14-44:02:18, 44:02:20-44:02:44, 44:02:46-44:03:36, 44:03:38-44:03:50, 44:03:52-44:05:02, 44:05:04-44:05:06, 44:07, 44:10, 44:12-44:17, 44:19N-44:24, 44:26-44:39, 44:41:01-44:43:02, 44:45, 44:47-44:49, 44:51-44:56N, 44:58N-44:59:02, 44:61N-44:74, 44:76-44:82, 44:84:01-44:89, 44:91-44:94, 44:96-44:128:02, 44:132-44:133, 44:135-44:151, 44:153-44:155, 44:157-44:169, 44:171N-44:195N, 44:197-44:200, 44:202-44:209, 44:211-44:245:02, 44:247-44:253, 44:255-44:256, 44:258-44:276, 44:278-44:344, 44:346-44:354N, 44:357-44:359, 44:361-44:365, 44:437, 44:439-44:444, 44:446-44:453, 44:456-44:524, 44:526-44:544N, 44:546, 47:04, 47:11, <b>C*16:85</b>
4	170 bp  205 bp	1070 bp	*49:03  *49:09	*15:01:76, 15:32:02, 18:04:01, 18:98:02, 18:125, 37:22:02, 40:01:11, 40:58, 44:02:10, 44:34:01, 51:07:01, 51:214, 51:222, 51:251, 51:310, 51:340, 52:01:02:01-52:01:02:09, 52:01:04, 52:01:09, 52:01:40, 52:01:43, 52:01:47, 52:01:49, 52:02:01, 52:03, 52:09:01, 52:10:03, 52:11:02, 52:21:01, 52:31:02, 52:85, 52:97, 52:102, 52:104 *13:15, 14:37, 18:191, 50:58, 51:62, 51:106:01-51:106:02, 51:223, 51:225, 52:25:01-52:25:02, 56:34
5 <sup>4</sup>	105 bp	1070 bp	*49:01:01:01-49:03, 49:06-49:14, 49:16-49:17, 49:19N-49:46, 49:48-49:49, 49:51-49:60N, 49:62-49:78	*07:78, 13:02:01:01-13:02:14, 13:02:16-13:02:37, 13:03, 13:08-13:09, 13:14-13:16, 13:18-13:19, 13:27, 13:30-13:34, 13:37-13:38, 13:40-13:42, 13:44-13:45, 13:48-13:49N, 13:53-13:56:02N, 13:58, 13:65-13:70, 13:74-13:75, 13:81-13:82, 13:84-13:85, 13:88-13:89, 13:91, 13:93-13:94,



0197

For *In Vitro* Diagnostic Use  
MA123 v02 SSP PI Template  
Date: March 2023, Rev. No: 00

101.547-06 – including *Taq* polymerase  
101.547-06u – without *Taq* polymerase

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

Lot No.: 7R7

Lot-specific information

				13:96-13:105, 13:111-13:121, 13:123Q-13:126, 13:128, 13:130-13:134, 13:136-13:137N, 13:139N, 13:143, 13:145, 13:147, 13:149-13:159, 13:164-13:167, 13:169, 13:172, 13:175-13:176, 14:37, 15:42, 15:303, 15:485, 15:552, 35:60, 44:15:01:01-44:15:01:02, 44:18:01:01-44:18:01:02, 44:339, 44:355, 45:01:01:01-45:01:12, 45:03-45:08, 45:10-45:25, 45:27-45:28N, 45:30, 46:11, 46:18, 50:01:01:01-50:01:20, 50:01:22-50:02:01:02, 50:04:01-50:08, 50:10-50:11, 50:13, 50:15, 50:18-50:19, 50:21-50:22, 50:31-50:32, 50:34-50:40, 50:43-50:50, 50:52-50:79, 51:15, 51:106:02, 51:157, 51:225, 51:300, 52:25:01, 54:01:01:01-54:03, 54:05N, 54:07-54:08N, 54:10, 54:12-54:13, 54:16-54:30, 54:32-54:37, 54:39-54:41, 54:43-54:46, 55:01:01:01-55:01:06, 55:01:08-55:02:10, 55:02:12-55:03, 55:05, 55:07, 55:09-55:12, 55:15-55:16, 55:18-55:19, 55:21-55:22, 55:24-55:26, 55:29-55:31, 55:33-55:38, 55:40-55:41, 55:43, 55:45-55:48, 55:50, 55:52, 55:54-55:57, 55:59-55:60, 55:62-55:67, 55:69-55:80, 55:82-55:85, 55:87-55:93, 55:95-55:109, 55:111-55:134, 56:01:01:01-56:01:18, 56:07-56:08, 56:13-56:14, 56:16-56:17, 56:19N-56:20:02, 56:23-56:30, 56:33-56:49, 56:52-56:55:01:02, 56:58-56:59, 56:61-56:62, 56:64-56:65, 56:67-56:87, 56:89-56:91, 59:01:01:01-59:01:01:02, 59:04-59:10N, 59:12
6 <sup>5</sup>	160 bp	1070 bp	*49:01:01:01-49:03, 49:06-49:14, 49:16-49:17, 49:19N-49:36, 49:38-49:40, 49:42-49:49, 49:51-49:60N, 49:62-49:78	*13:01:01:01-13:03, 13:06-13:09, 13:11-13:12:02, 13:14-13:17, 13:19-13:20, 13:22:01-13:23, 13:25, 13:27-13:30, 13:32-13:34, 13:36-13:40, 13:42-13:45, 13:47-13:50, 13:52-13:58, 13:60-13:61, 13:63N-13:70, 13:74-13:78, 13:80-13:85, 13:87-13:107, 13:109-13:126, 13:129-13:130, 13:132-13:139N, 13:141-13:144, 13:146-13:153, 13:155-13:159, 13:161N-13:163, 13:165-13:173, 13:175-13:176, 14:37, 15:42, 15:86, 15:224, 15:485, 15:552, 18:191, 35:60, 35:432, 35:446, 39:17, 40:48, 40:71, 40:377, 44:10, 44:339-44:340, 46:11, 46:18, 50:01:01:01-50:02:01:02, 50:04:01-50:08, 50:10-50:13, 50:15-50:19, 50:21-50:22, 50:31-50:32, 50:34-50:38, 50:40-50:46, 50:48-50:75, 50:77-50:79, 51:15, 51:62, 51:106:01-51:106:02, 51:157, 51:223, 51:225, 51:300, 52:25:01-52:25:02, 54:01:01:01-54:03, 54:05N, 54:07-54:08N, 54:12-54:13, 54:17-54:19, 54:21-54:32, 54:34-54:39, 54:41, 54:43-54:46, 55:01:01:01-55:03, 55:05, 55:07, 55:10-55:12, 55:15-55:16, 55:18-55:19, 55:22, 55:24-55:26, 55:29-55:31, 55:33-55:36, 55:38-55:45, 55:47-55:48, 55:50, 55:53-55:55N, 55:57, 55:59-55:67, 55:69-55:80, 55:82-55:85, 55:87-55:109, 55:111-55:134, 56:01:01:01-56:01:04, 56:01:06-56:02:03, 56:04:01:01-56:04:04, 56:07-56:08, 56:10, 56:14, 56:16-56:17, 56:19N-56:20:02, 56:23-56:30, 56:33-56:42, 56:44-56:49, 56:52-56:62, 56:64-56:87, 56:89-56:91, 58:73, 59:01:01:01-59:01:01:02,



0197

For *In Vitro* Diagnostic Use  
MA123 v02 SSP PI Template  
Date: March 2023, Rev. No: 00

101.547-06 – including *Taq* polymerase  
101.547-06u – without *Taq* polymerase

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

Lot No.: **7R7**

Lot-specific information

7 <sup>4</sup>	105 bp	1070 bp	*49:04:01-49:05:02, 49:50	59:04-59:10N, 59:12, <b>C*07:536, C*15:91, C*15:128</b> *13:04, 13:46, 13:72, 13:127, 13:140, 13:160, 15:04:01:01-15:04:04, 15:16:01:01-15:16:05, 15:67, 15:95, 15:137, 15:155, 15:222, 15:254, 15:293, 15:310, 15:362, 15:408, 15:499, 15:517, 15:531, 15:550, 15:602, 15:609, 15:613, 35:37, 35:235, 35:265, 35:276, 39:06:01:01-39:06:08, 39:33-39:34, 39:50, 39:57, 39:62, 39:64, 39:83:01- 39:83:03, 39:90, 39:102, 39:109, 39:127, 39:129, 39:132, 39:140-39:141, 39:154, 39:178, 39:186- 39:187, 40:86, 40:159, 40:330, 41:30, 41:50, 45:02, 45:09, 46:32:01-46:32:02, 50:09, 50:33, 51:13:01-51:13:02, 51:37, 51:63:01-51:63:02, 51:92:01-51:92:02, 51:97, 51:172, 51:216, 51:251, 52:14:01-52:14:02, 52:39, 52:75, 52:97, 54:14, 55:13, 55:23, 55:32, 55:58, 55:68, 56:22, 56:50, 58:122, 59:03, 73:01:01:01-73:03, <b>C*05:152, C*07:463, C*07:758, C*12:183</b>
	255 bp		*49:20	*44:15:01:01-44:15:01:02, 44:18:01:01- 44:18:01:02, 44:20, 44:47, 44:100, 44:197, 44:339, 44:355, 45:01:01:01-45:03, 45:05-45:07, 45:09, 45:11-45:23, 45:25, 45:27-45:30, 50:02:01:01- 50:02:01:02, 50:21, 50:56, 51:23, 51:108, 52:15, 55:122, 56:74
8 <sup>4</sup>	95 bp	1070 bp	*49:05:01-49:05:02	*13:127, 15:613, 44:20, 44:47, 44:100, 44:197, 50:33, 50:39, 51:197, 51:216, 51:261, 51:274, 51:298, 52:26, 52:63, 54:15, <b>C*03:464, C*07:463, C*07:758, C*12:183</b>
	155 bp		*49:19N	
9 <sup>6</sup>	155 bp	<b>800 bp</b>	*49:21	
	240 bp		*49:07	*40:366, 45:10, 50:31
10 <sup>4</sup>	80 bp	<b>800 bp</b>	*49:16	*51:210
	250 bp		*49:08	*51:204:02, 52:33
11	505 bp	1070 bp		*08:03, 08:52, 08:78, 37:34, 38:30, 41:46, 41:60, 44:06, 44:18:01:01-44:18:01:02, 44:25, 44:95, 44:355, 51:08:01:01-51:08:06, 51:20, 51:36, 51:44N, 51:97, 51:141, 51:153:01-51:153:02, 51:263, 51:274-51:275, 51:342, 51:354, 51:362, 52:19, 53:22, 57:09, 57:24, 57:119
12	135 bp	1070 bp	*49:10, 49:24, 49:31	*13:129, 15:46, 15:53, 15:106, 18:107, 35:47, 35:154, 35:450, 40:10:01:01-40:10:02, 40:40, 40:49, 40:58, 40:110, 40:129, 40:164, 40:210, 40:219, 40:229, 40:325, 40:342, 40:399N, 40:449, 40:462, 41:33, 41:47, 44:02:01:01-44:02:31, 44:02:33-44:03:15, 44:03:17-44:03:29, 44:03:31- 44:05:06, 44:09-44:14, 44:16-44:17, 44:19N- 44:27:02, 44:27:04-44:39, 44:41:01-44:43:02, 44:45-44:48, 44:50:01-44:54, 44:56N, 44:58N- 44:59:02, 44:61N-44:80, 44:82, 44:84:01-44:102, 44:104-44:110, 44:112-44:129, 44:132-44:133, 44:135-44:144, 44:146-44:155, 44:157-44:187, 44:189-44:193, 44:195N-44:199, 44:201-44:209, 44:211, 44:213-44:224, 44:226-44:245:02, 44:247- 44:292, 44:294-44:354N, 44:356-44:365,



0197

For *In Vitro* Diagnostic Use

MA123 v02 SSP PI Template

Date: March 2023, Rev. No: 00



101.547-06 – including *Taq* polymerase  
101.547-06u – without *Taq* polymerase

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

Lot No.: **7R7**

Lot-specific information

Lot No.: <b>7R7</b>				Lot-specific information
				44:437-44:444, 44:446-44:524, 44:526-44:527, 44:529, 44:531-44:546, 47:01:01:02-47:12, 50:13, 50:43, 53:30, 56:67, 57:45, 57:69, 58:111, <b>C*16:85</b>
<b>13<sup>5</sup></b>	150 bp	1070 bp	*49:11	*13:01:01:01-13:02:33, 13:02:35-13:03, 13:06-13:09, 13:11-13:12:02, 13:14-13:15, 13:17, 13:18 <sup>w</sup> , 13:19, 13:22:01-13:23, 13:25, 13:27-13:30, 13:32-13:34, 13:36-13:40, 13:42-13:45, 13:47, 13:49N-13:50, 13:52-13:58, 13:60-13:61, 13:63N-13:70, 13:73 <sup>w</sup> , 13:74-13:78, 13:80-13:85, 13:87-13:88, 13:90-13:107, 13:109, 13:111-13:126, 13:129-13:130, 13:132-13:139N, 13:141-13:144, 13:146-13:153, 13:155-13:158, 13:161N-13:163, 13:165-13:173, 13:175-13:176, 15:86, 15:224, 15:485, 15:552, 18:191, 35:60, 35:432, 35:446, 40:48, 40:71, 40:377, 44:10, 44:339-44:340, 46:11, 46:18, 50:70, 51:15, 51:157, 54:01:01:01-54:03, 54:05N, 54:07-54:08N, 54:10 <sup>w</sup> , 54:12-54:13, 54:17-54:19, 54:21-54:32, 54:34-54:39, 54:41, 54:43-54:46, 55:02:01:01-55:02:16, 55:07, 55:10, 55:12, 55:16, 55:18-55:19, 55:22, 55:26, 55:30, 55:34-55:35, 55:37 <sup>w</sup> , 55:39, 55:41-55:43, 55:47-55:48, 55:50, 55:61-55:63, 55:65, 55:67, 55:69-55:72, 55:77, 55:80, 55:82-55:83N, 55:88-55:89N, 55:96, 55:107, 55:112, 55:117N, 55:120, 55:128-55:134, 56:01:01:01-56:01:04, 56:01:06-56:01:15, 56:01:17-56:02:03, 56:04:01:01-56:04:04, 56:07-56:08, 56:10, 56:14, 56:16-56:17, 56:19N-56:20:02, 56:23-56:24, 56:26-56:29, 56:33-56:36, 56:38N-56:42, 56:44-56:49, 56:51 <sup>w</sup> , 56:52-56:58, 56:60-56:62, 56:63 <sup>w</sup> , 56:64-56:65, 56:67-56:87, 56:89-56:91, 58:73, 59:01:01:01-59:01:01:02, 59:04-59:10N
<b>14</b>	155 bp 190 bp	1070 bp	*49:19N *49:12, 49:17	*39:141, 51:130, 51:177, 55:87, 56:61
<b>15<sup>5</sup></b>	160 bp 190 bp 290 bp	1070 bp	*49:13 *49:17 *49:14	*51:177, 56:61
<b>16</b>	170 bp	<b>800 bp</b>	*49:03	*15:01:76, 15:32:02, 18:04:01, 18:98:02, 18:125, 37:22:02, 40:01:11, 40:58, 44:02:10, 44:34:01, 51:07:01, 51:214, 51:222, 51:251, 51:310, 51:340, 52:01:02:01-52:01:02:09, 52:01:04, 52:01:09, 52:01:40, 52:01:43, 52:01:47, 52:01:49, 52:02:01, 52:03, 52:09:01, 52:10:03, 52:11:02, 52:21:01, 52:31:02, 52:85, 52:97, 52:102, 52:104
<b>17</b>	180 bp	1070 bp	*49:23	
<b>18</b>	175 bp	1070 bp	*49:27	*15:406
<b>19<sup>4</sup></b>	95 bp	1070 bp	*49:04:01-49:04:02	*07:84, 07:429, 13:04, 13:35, 13:72, 15:04:01:01-15:04:04, 15:16:01:01-15:16:05, 15:67, 15:95, 15:155, 15:222, 15:254, 15:293, 15:310, 15:362, 15:408, 15:499, 15:517, 15:531, 15:550, 15:602, 15:609, 35:37, 35:235 <sup>w</sup> , 35:265, 40:44, 40:159, 41:21, 45:09, 46:32:01-46:32:02, 51:37, 51:90, 51:92:01 <sup>w</sup> -51:92:02 <sup>w</sup> , 52:12, 52:75 <sup>w</sup> , 54:14, 55:23, 55:27, 55:68, 56:50, 58:122



0197

For *In Vitro* Diagnostic Use

MA123 v02 SSP PI Template

Date: March 2023, Rev. No: 00

101.547-06 – including *Taq* polymerase  
101.547-06u – without *Taq* polymerase

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

Lot No.: **7R7**

Lot-specific information

Lot No.	Size	Length	Allele	Sequence
20 <sup>4</sup>	100 bp	1070 bp	*49:18:01-49:18:02	*08:254, 40:366, 41:01:01:01-41:01:08, 41:05-41:07, 41:09, 41:12, 41:14, 41:16-41:17, 41:20-41:22, 41:25-41:26, 41:28-41:29, 41:32-41:35, 41:37, 41:53-41:54, 41:56Q-41:57, 41:59-41:61, 41:64, 41:67, 41:70, 41:73, 41:75-41:79, 44:100, 44:197, 45:29, 50:14, 50:20, 51:372
21	150 bp	1070 bp	*49:61	*07:28 <sup>w</sup> , 44:76 <sup>w</sup> , 44:79:01-44:79:02, 44:150 <sup>w</sup> , 51:261, 52:26, <b>C*01:115<sup>w</sup></b> , <b>C*03:433</b> , <b>C*03:514</b> , <b>C*04:439<sup>w</sup></b> , <b>C*14:79<sup>w</sup></b>
22	125 bp	1070 bp	*49:26, 49:73	*07:16 <sup>w</sup> , 07:37:01 <sup>w</sup> -07:37:02 <sup>w</sup> , 07:38, 07:50 <sup>w</sup> , 07:75:01:01-07:75:01:02, 07:91 <sup>w</sup> , 07:180, 07:207 <sup>w</sup> , 07:219, 07:228:01 <sup>w</sup> -07:228:02 <sup>w</sup> , 07:306 <sup>w</sup> , 08:03, 08:23 <sup>w</sup> , 08:54:01 <sup>w</sup> -08:54:02 <sup>w</sup> , 08:110 <sup>w</sup> , 08:295, 14:14 <sup>w</sup> , 14:18 <sup>w</sup> , 14:73 <sup>w</sup> , 15:03:01:01 <sup>w</sup> -15:03:09 <sup>w</sup> , 15:03:11 <sup>w</sup> -15:03:13 <sup>w</sup> , 15:09:01 <sup>w</sup> -15:10:08 <sup>w</sup> , 15:18:01:01 <sup>w</sup> -15:18:10 <sup>w</sup> , 15:23, 15:29:01:01 <sup>w</sup> -15:29:01:02 <sup>w</sup> , 15:37 <sup>w</sup> , 15:47:01 <sup>w</sup> -15:47:02 <sup>w</sup> , 15:49 <sup>w</sup> , 15:51 <sup>w</sup> -15:52 <sup>w</sup> , 15:54 <sup>w</sup> , 15:62 <sup>w</sup> , 15:64:01 <sup>w</sup> -15:64:02 <sup>w</sup> , 15:68 <sup>w</sup> -15:69 <sup>w</sup> , 15:72 <sup>w</sup> , 15:74 <sup>w</sup> , 15:80 <sup>w</sup> , 15:90 <sup>w</sup> -15:91 <sup>w</sup> , 15:93 <sup>w</sup> , 15:98 <sup>w</sup> -15:99 <sup>w</sup> , 15:103 <sup>w</sup> , 15:108 <sup>w</sup> , 15:114 <sup>w</sup> , 15:123 <sup>w</sup> -15:124 <sup>w</sup> , 15:127 <sup>w</sup> , 15:131 <sup>w</sup> -15:134 <sup>w</sup> , 15:151 <sup>w</sup> , 15:153 <sup>w</sup> , 15:156 <sup>w</sup> , 15:158 <sup>w</sup> , 15:161 <sup>w</sup> , 15:173 <sup>w</sup> , 15:176 <sup>w</sup> , 15:186 <sup>w</sup> , 15:197:01 <sup>w</sup> -15:198 <sup>w</sup> , 15:200 <sup>w</sup> , 15:210 <sup>w</sup> , 15:220:01:01 <sup>w</sup> -15:221 <sup>w</sup> , 15:226N <sup>w</sup> , 15:229 <sup>w</sup> , 15:235 <sup>w</sup> , 15:238 <sup>w</sup> , 15:242:01 <sup>w</sup> -15:243 <sup>w</sup> , 15:252 <sup>w</sup> -15:253 <sup>w</sup> , 15:259 <sup>w</sup> , 15:263 <sup>w</sup> , 15:266 <sup>w</sup> , 15:274 <sup>w</sup> -15:275:02 <sup>w</sup> , 15:281 <sup>w</sup> -15:282 <sup>w</sup> , 15:290 <sup>w</sup> , 15:292 <sup>w</sup> -15:293 <sup>w</sup> , 15:306 <sup>w</sup> -15:307 <sup>w</sup> , 15:311 <sup>w</sup> -15:314 <sup>w</sup> , 15:323 <sup>w</sup> , 15:329 <sup>w</sup> , 15:335 <sup>w</sup> , 15:337 <sup>w</sup> -15:338 <sup>w</sup> , 15:351 <sup>w</sup> , 15:354 <sup>w</sup> , 15:369 <sup>w</sup> , 15:379 <sup>w</sup> -15:380N <sup>w</sup> , 15:382 <sup>w</sup> , 15:388 <sup>w</sup> -15:389 <sup>w</sup> , 15:414 <sup>w</sup> , 15:426 <sup>w</sup> -15:427 <sup>w</sup> , 15:433 <sup>w</sup> , 15:435 <sup>w</sup> , 15:439 <sup>w</sup> , 15:444 <sup>w</sup> -15:445 <sup>w</sup> , 15:447 <sup>w</sup> -15:448 <sup>w</sup> , 15:451 <sup>w</sup> , 15:455 <sup>w</sup> , 15:475 <sup>w</sup> , 15:487N <sup>w</sup> , 15:498 <sup>w</sup> , 15:502 <sup>w</sup> -15:504:02 <sup>w</sup> , 15:506 <sup>w</sup> , 15:509 <sup>w</sup> , 15:511 <sup>w</sup> , 15:517 <sup>w</sup> , 15:526 <sup>w</sup> -15:527 <sup>w</sup> , 15:530 <sup>w</sup> , 15:539 <sup>w</sup> , 15:548 <sup>w</sup> , 15:560 <sup>w</sup> , 15:570 <sup>w</sup> -15:571 <sup>w</sup> , 15:573 <sup>w</sup> , 15:582 <sup>w</sup> , 15:588 <sup>w</sup> , 15:607 <sup>w</sup> , 15:610 <sup>w</sup> -15:611 <sup>w</sup> , 15:614:01:01 <sup>w</sup> -15:614:01:02 <sup>w</sup> , 15:616Q <sup>w</sup> -15:617 <sup>w</sup> , 15:620 <sup>w</sup> , 15:628 <sup>w</sup> , 15:643 <sup>w</sup> , 15:650 <sup>w</sup> , 18:37:01 <sup>w</sup> -18:37:02 <sup>w</sup> , 18:125 <sup>w</sup> , 27:18 <sup>w</sup> , 27:23 <sup>w</sup> , 27:44 <sup>w</sup> , 27:119, 27:131 <sup>w</sup> , 27:257 <sup>w</sup> , 35:25 <sup>w</sup> -35:26 <sup>w</sup> , 35:49:01 <sup>w</sup> -35:49:02 <sup>w</sup> , 35:361 <sup>w</sup> , 38:01:01:01-38:01:22, 38:02:07, 38:05, 38:09-38:12, 38:16, 38:19-38:22, 38:24-38:25, 38:27-38:28, 38:30-38:34N, 38:36-38:40, 38:42, 38:51-38:61, 38:63, 38:65-38:71, 38:73, 38:77-38:78, 38:80N-38:81, 38:83N, 38:86-38:88, 38:90-38:91, 38:93-38:96, 38:99-38:102, 38:161, 38:166, 38:168-38:171, 39:05:01:01 <sup>w</sup> -39:05:05 <sup>w</sup> , 39:07 <sup>w</sup> -39:08 <sup>w</sup> , 39:11 <sup>w</sup> , 39:13:01 <sup>w</sup> -39:13:02 <sup>w</sup> , 39:20 <sup>w</sup> , 39:37:01:01 <sup>w</sup> -39:37:01:02 <sup>w</sup> , 39:49 <sup>w</sup> , 39:55 <sup>w</sup> -39:56 <sup>w</sup> , 39:113 <sup>w</sup> , 39:118 <sup>w</sup> , 39:147N <sup>w</sup> , 39:149 <sup>w</sup> , 39:161N <sup>w</sup> , 39:163 <sup>w</sup> , 39:165 <sup>w</sup> -39:168 <sup>w</sup> , 39:170 <sup>w</sup> , 39:172 <sup>w</sup> , 39:174 <sup>w</sup> , 40:12:01 <sup>w</sup> -40:12:02 <sup>w</sup> , 40:46 <sup>w</sup> , 40:93 <sup>w</sup> , 40:430 <sup>w</sup> , 42:11 <sup>w</sup> , 48:01:01:01 <sup>w</sup> -48:17 <sup>w</sup> , 48:18,



0197

For *In Vitro* Diagnostic Use  
MA123 v02 SSP PI Template  
Date: March 2023, Rev. No: 00

101.547-06 – including *Taq* polymerase  
101.547-06u – without *Taq* polymerase

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

Lot No.: **7R7**

Lot-specific information

			48:19 <sup>w</sup> -48:40 <sup>w</sup> , 48:42 <sup>w</sup> -48:47 <sup>w</sup> , 48:49 <sup>w</sup> -48:55 <sup>w</sup> , 48:57 <sup>w</sup> , 50:75 <sup>w</sup> , 51:267, 52:16, 55:18 <sup>w</sup> , 55:31 <sup>w</sup> , 56:23 <sup>w</sup> , 56:42 <sup>w</sup> , 56:44 <sup>w</sup> , 56:54 <sup>w</sup> , 56:89 <sup>w</sup> , 58:44, 59:01:01:01-59:05, 59:07, 59:09-59:12, 81:08 <sup>w</sup>
<b>23<sup>7</sup></b>	-	-	<b>Negative Control</b>

<sup>1</sup>Alleles are assigned by the presence of specific PCR product(s). However, the sizes of the specific PCR products may be helpful in the interpretation of HLA-B\*49 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.

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

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

<sup>2</sup>The internal positive control primer pairs amplify segments of the human growth hormone gene. The 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.

<sup>3</sup>For several HLA Class I alleles 1<sup>st</sup> and/or 4<sup>th</sup> 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.

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

<sup>5</sup>Primer mixes 6, 13 and 15 may have tendencies of unspecific amplifications.

<sup>6</sup>Primer mix 9 may give rise to a long fragment of approx. 600 bp in some HLA-B alleles. This band should not be considered in the interpretation of HLA-B\*49 typings.

<sup>7</sup>Primer mix 23 contains a negative control, which will amplify the majority 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 200 base pairs.

#### Abbreviations

w: may be weakly amplified.



0197

For *In Vitro* Diagnostic Use

MA123 v02 SSP PI Template

Date: March 2023, Rev. No: 00

101.547-06 – including *Taq* polymerase  
101.547-06u – without *Taq* polymerase

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

Lot No.: 7R7

Lot-specific information  
**PRIMER SPECIFICATION**

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec. PCR product	145	145 190 255	115 145	170 205	105	160	105 255	95 155	155 240	80 250	505	135
Length of int. pos. control <sup>1</sup>	800	800	800	1070	1070	1070	1070	1070	800	800	1070	1070
5'-primer(s) <sup>2</sup>	206 5'-gAA 3'	97 5'-TCC 3'	206 5'-gAA 3'	141 5'-ATT 3'	357 5'-Tgg 3'	420 5'-TTA 3'	357 5'-Tgg 3'	357 5'-Tgg 3'	206 5'-gAA 3'	357 5'-Tgg 3'	317 5'-gCT 3'	97 5'-TCT 3'
		454 5'-ACA 3'	485 5'-CAA 3'	420 5'-TTA 3'					362 5'-gAg 3'			
3'-primer(s) <sup>3</sup>	309 5'-ATC 3'	246 5'-TAT 3'	309 5'-gTg 3'	272 5'-Tgg 3'	420 5'-gCT 3'	538 5'-CAg 3'	419 5'-Cgg 3'	409 5'-ATA 3'	319 5'-gCA 3'	394 5'-gCA 3'	538 5'-gTC 3'	193 5'-CgT 3'
		309 5'-gTg 3'	559 5'-CAg 3'	583 5'-gTg 3'			419 5'-CgA 3'	470 5'-TCT 3'	559 5'-CTC 3'	565 5'-CAg 3'		
		559 5'-CAg 3'					572 5'-gCg 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
Length of spec. PCR product	150	155 190	160 190 290	170	180	175	95	100	150	125
Length of int. pos. control <sup>1</sup>	1070	1070	1070	800	1070	1070	1070	1070	1070	1070
5'-primer(s) <sup>2</sup>	420 5'-TTA 3'	357 5'-Tgg 3'	357 5'-Tgg 3'	141 5'-ATT 3'	357 5'-Tgg 3'	140 5'-CAC 3'	357 5'-Tgg 3'	362 5'-gAg 3'	418 5'-Agg 3'	206 5'-AgA 3'
3'-primer(s) <sup>3</sup>	527 5'-CCA 3'	470 5'-TCT 3'	476 5'-CCC 3'	272 5'-Tgg 3'	497 5'-Tgg 3'	272 5'-Tgg 3'	409 5'-ATg 3'	419 5'-CgT 3'	527 5'-CCT 3'	292 5'-gTA 3'
		505 5'-gCT 3'	506 5'-Tgg 3'							292 5'-gTA 3'
		506 5'-Tgg 3'	608 5'-gCT 3'							
Well No.	13	14	15	16	17	18	19	20	21	22

<sup>1</sup>The 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.

<sup>2</sup>The nucleotide position matching the specificity-determining 3'-end of the primer is given. Nucleotide numbering as on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

<sup>3</sup>The 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](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.



0197

101.547-06 – including Taq polymerase  
101.547-06u – without Taq polymerase

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

Lot No.: 7R7

Lot-specific information

CELL LINE VALIDATION SHEET																				
HLA-B*49 SSP primer set <sup>2</sup>																				
				Well																
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
				Prod. No.:	202127301	202127302	202127303	202127304	202127305	202127306	202127307	202127308	202127309	202127310	202127311	202127312	202127313	202127314	202127315	202127316
IHCW cell line <sup>1</sup>		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	9025	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	-	-	+	-	-	-	-	-	-	-	-	+	-	-	-	-



0197

101.547-06 – including *Taq* polymerase  
101.547-06u – without *Taq* polymerase

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

Lot No.: **7R7**

Lot-specific information

CELL LINE VALIDATION SHEET										
HLA-B*49 SSP primer set <sup>2</sup>										
				Well						
				17	18	19	20	21	22	
				Prod. No.:	202127317	202127318	202127319	202127320	202127321	202349522
IHWC cell line <sup>1</sup>			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	9025	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	-	-	-	-	-	-



0197

For *In Vitro* Diagnostic Use  
MA123 v02 SSP PI Template  
Date: March 2023, Rev. No: 00

101.547-06 – including *Taq* polymerase  
101.547-06u – without *Taq* polymerase

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

Lot No.: **7R7**

**Lot-specific information**

<sup>1</sup>The 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.

<sup>2</sup>The 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 2, 4, 8 to 11, 14 to 18 and 21 were available. The specificities of the primers in primer solutions 2, 4, 8, 9, 11, 16 and 21 were tested by separately adding additional 3'-primers, and additional 5'-primers accordingly. In primer solutions 10, 14, 15 and 17 it was only possible to test the 5'-primer, the 3'-primers were not possible to be tested. In primer solution 18 it was only possible to test the 3'-primer, the 5'-primer was not possible to be tested. In primer solution 2 one 5'-primer was not possible to be tested, and in primer solutions 8 and 9, one 3'-primer was not possible to be tested. In addition, one 5'-primer and one 3'-primer in primer solution 3 were tested by separately adding one 3'-primer and one 5'-primer respectively.



**0197**

For *In Vitro* Diagnostic Use

MA123 v02 SSP PI Template

Date: March 2023, Rev. No: 00

101.547-06 – including *Taq* polymerase  
101.547-06u – without *Taq* polymerase

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

Lot No.: **7R7**

Lot-specific information

**ADDRESSES:**

**Manufacturer:**

**CareDx AB**, Franzengatan 5, SE-112 51 Stockholm, Sweden.

Tel: +46-8-508 939 00

**Fax:** +46-8-717 88 18

**E-mail:** [orders-se@caredx.com](mailto:orders-se@caredx.com)

**Web page:** [www.caredx.com](http://www.caredx.com)

**CareDx Lab Solutions Inc.**, 901 S. Bolmar St., Suite R, West Chester, PA 19382

**Tel:** 1-877-653-78171

**Fax:** 610-344-7989

**E-mail:** [orders-us@caredx.com](mailto:orders-us@caredx.com)

**Web page:** [www.caredx.com](http://www.caredx.com)

For information on CareDx distributors worldwide, contact **CareDx AB**.



**0197**

For *In Vitro* Diagnostic Use

MA123 v02 SSP PI Template

Date: March 2023, Rev. No: 00