

HaploPrep™ Probe Book for HLA-B



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For Research Use Only

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Intended Use:

HaploPrep™ is intended for the separation of alleles into their haploid components for downstream analysis. This collection of probes for HLA-B is designed to separate allele combinations that cause ambiguities, or for the characterization of new alleles.

Background:

HaploPrep™ or Haplotype-Specific Extraction (HSE) physically separates diploid genomic DNA into its haploid components. These components can then be separately analyzed by routine DNA typing methods that are currently used on standard diploid DNA. By separating the alleles, HaploPrep™ provides the advantage to individually analyze each gene.

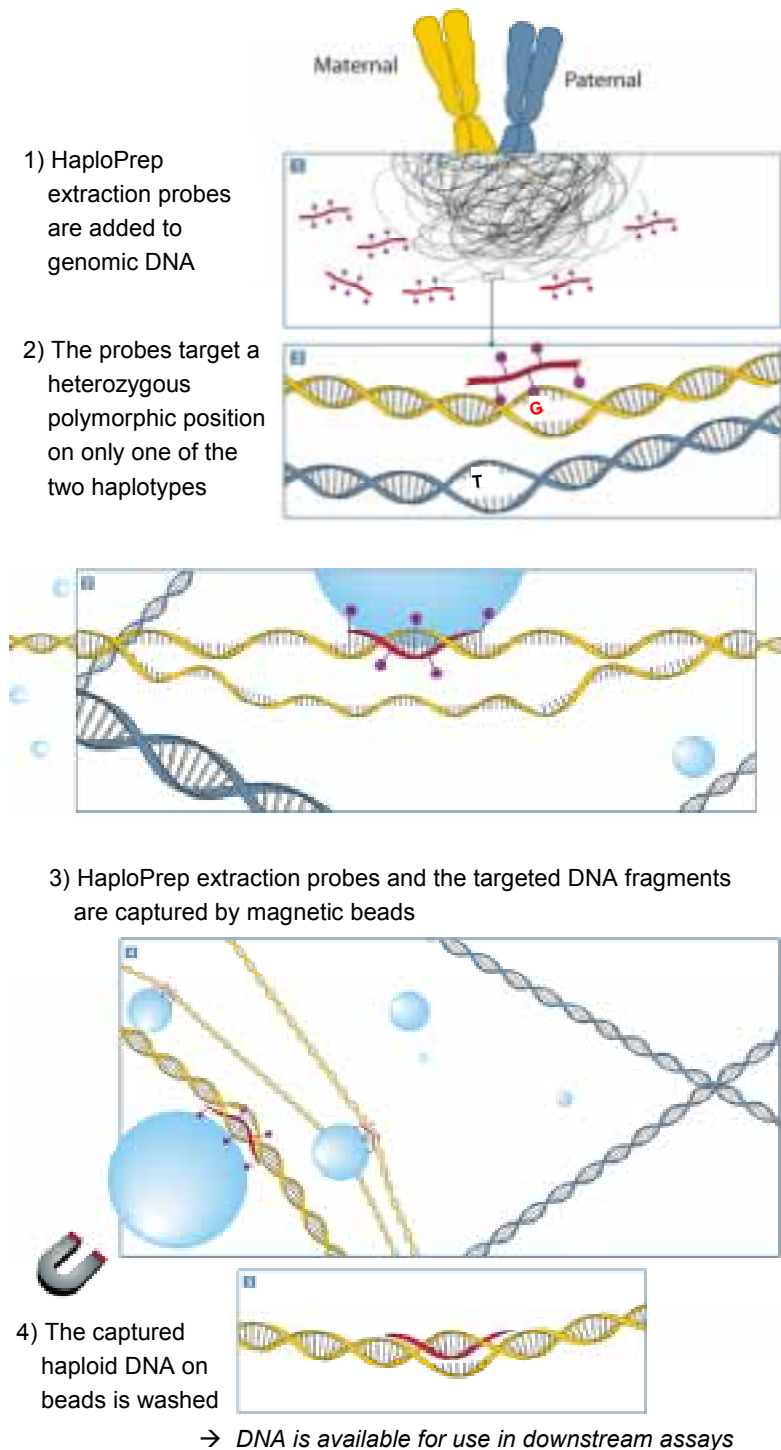
HSE has been tested with direct sequencing; forward sequence-specific oligonucleotide probes (SSO), reverse SSO, sequence-specific priming (SSP), homogeneous luminescent genotyping, and restriction fragment length polymorphism (RFLP) digests.

HSE technology for HLA is developed under a collaboration of GenoVision and Generation Biotech.

Patents pending US 09/735,099 and international applications.

Principle:

HSE separates DNA into its haploid components by exploiting the heterozygous differences between allele combinations. DNA is hybridized with specially designed probes, then magnetic beads capture the hybridized DNA fragments and the haploid component is purified, leaving the non-targeted allele in the solution.



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Probe Targets – Unique Sequence Elements

HLA-B Probe #	Unique Sequence Element	Center Position	Exon
B48A	GGGGGGGCAG	45	1
B48C	CGGCGGCCC	45	1
B261C	GAACA	260	2
B261G	GGAGA	260	2
B277A	CCAAGACCAACA	277	2
B277G2	ACAAGGCCCCAGG	277	2
B317T	ACCTGCGCG	315	2
B355A	TCATC	355	3
B355C	CCCTC	355	3
B355T	CTTGG	355	3
B539A	GGACA	539	3
B539T	GCTGA	539	3
B559C	GCCTG	559	3
B559G	GCGAG	559	3

How to Select Probes for Haplotype-Specific Extraction:

Selection of the appropriate probes is an important but complex process due to the highly polymorphic nature of HLA genes; therefore, the data and specificity of each probe is presented in several formats:

- The **Allele Level Chart** lists all alleles and their reactivity with the probes.
- The **Serology Group Chart** lists alleles in their serology groups. The probe which most effectively extracts the group is listed first. Exceptions are listed specifically indicating alleles within a group which are not captured, alleles that are weakly targeted, and alleles for which the sequence information is unknown.
- The **HLA-B Probe Matrix Chart** lists the suggested probes to use with specified serology group combinations. The probes listed will capture most of the alleles within the serology group, except those probes that are listed in **bold**. These probes capture the most frequent alleles within the serology group but may capture both alleles.
- The **Probe Chart** lists the alleles targeted by the individual probes.

The low-resolution type must be known for a sample before using HSE. The principle of the extraction is to target a known heterozygous position. A sample that is a known homozygote cannot be separated.

The following examples of how to select HLA-B probes can be extrapolated to help select probes for any HLA loci:

- Refer to the **allele level chart** and find the allele you wish to target in the first column of the chart. Probes are listed on top of the chart in the first row. Probes which target an allele are designated by black cells. Grey cells indicate that the probe targets the allele weakly. If the intersecting cell is white, the probe does not target the allele.

- For example, if you wish to separate a sample with a low-resolution type of HLA-B*08xx and HLA-B*42xx, the allele level chart lists several probes which target most *08 alleles: B261C, B277A, B317T, B355C, and B539A. Closer inspection will show that the last 3 probes do not target several of the

Allele	B261C	B277A	B317T	B355C	B539A	B261C	B277A	B317T	B355C	B539A	B261C	B277A	B317T	B355C	B539A
HLA-B*0801															
HLA-B*0802															
HLA-B*0803															
HLA-B*0804															
HLA-B*0805															
HLA-B*0806															
HLA-B*0807															
HLA-B*0808															
HLA-B*0809															
HLA-B*0810															
HLA-B*0811															
HLA-B*0812															
HLA-B*0813															
HLA-B*0814															
HLA-B*0815															
HLA-B*0816															
HLA-B*0817															
HLA-B*0818															
HLA-B*0819															
HLA-B*0820															
HLA-B*0821															

more common *08 alleles. Probes B261C and B277A target most of the *08 alleles with few exceptions. Once you've found probes which target one allele, you must check to be certain they do not target the other allele. Probe B261C also targets HLA-B*42xx and therefore would not separate this combination; however, B277A would.

- If a sample appears to have alleles in the same serology group refer to the **serology group chart**, and select probes that could separate alleles within the group.

	Targeted by process	Activities associated to targeted	Activities not targeted	Unknown Sequence Comparison
00	00010		00010	
	00011		00021, 0100, 0210	
	00012		00011, 0114, 0210	
	00016		00010, 0100, 0214, 0211, 0212	
	00020	000201, 000204, 0004-0100, 0009, 0112, 0211, 0110, 0217, 0218, 0220, 0210, 0213, 0216	00001, 0100, 0210, 0100, 0122, 0210, 0210, 0210	
	00021		00001, 0100, 0210, 0100, 0122, 0210, 0210	
	00022		00001, 0100, 0210, 0100, 0122, 0210, 0210	
	00023		00001, 0100, 0210, 0100, 0122, 0210, 0210	
	00024		00001, 0100, 0210, 0100, 0122, 0210, 0210	000201, 000204, 0009, 0110, 0112, 0217, 0218, 0220, 0214, 0216
	00025		00004, 0100, 0215, 0210	
	00026		00001, 0001, 0005, 0100, 0120, 0210, 0213	
	00027	000271	00001, 00004, 0004, 0001, 0009, 0110, 0217, 0218, 0210, 0214, 0216	
	00028		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00029		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00030		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00031		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00032		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00033		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00034		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00035		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00036		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00037		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00038		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00039		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00040		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00041		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00042		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00043		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00044		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00045		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00046		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00047		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00048		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00049		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00050		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00051		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00052		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00053		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00054		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00055		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00056		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00057		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00058		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00059		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00060		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00061		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00062		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00063		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00064		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00065		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00066		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00067		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00068		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00069		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00070		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00071		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00072		00001, 0001, 0005, 0100, 0120, 0214, 0216	
	00073		00001, 0001, 0005, 0100, 0120, 0214, 0216	

- For example, there is an indication from initial typing that a sample consists of two different types of B07: B*0701 and B*0703. HLA-B*0703 is listed as a non-targeted allele for probes B277G1, B277G2, and B48A (see column titled 'Alleles Not Targeted'). Since B*0701 is not listed as an unknown sequence comparison or weakly targeted allele for these probes, any of these probes will extract B*0701 from this sample.

- The **probe matrix chart** lists probes that will separate allele combinations from different serology groups. Find the serology group of one allele in the top row of the chart. The serology groups in this first row are referred to as Group One. Find the second serology group of the mixture in the first column down the left side of the chart. Serology groups in this column are referred to as Group Two. Probes which will target most of the alleles within serology Group One are designated by white intersecting cells in the matrix. Probes which target Group Two are designated by grey intersecting cells. **Any probe listed in bold may capture alleles from both groups and should be investigated in the allele level chart before using to separate a sample.**

- For example, a sample has a low-resolution type of HLA-B*07xx and HLA-B*44xx. If you select B7 from the top row (group one) and B44 from the first column (group two) of the chart, probes B277G1 and B277G2 are listed in white intersecting cells and will extract B7. Probes B277A and B261G are listed in grey intersecting cells and will extract B44; however, probes B277A and B261G are listed in **bold**, which mean these probes may capture some alleles in the B7 group – check the allele level chart before use.

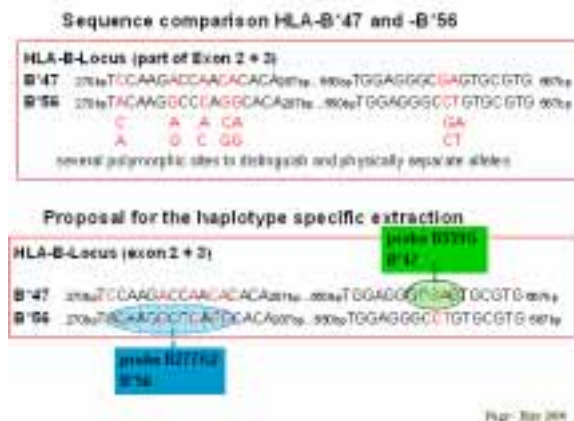
xly	B7	
B7		
B8	B559G	B277A
	B277G1	
	B277G2	
B13	B261C	B261G
	B277G1	
	B277G2	
B14	B559G	B277A
	B277G1	
	B277G2	
B40	B277G1	B277A
	B277G2	B261G
B41	B261C	B277A
	B559G	B539A
	B277G1	
B42	B559G	B539A
B44	B277G1	B277A
	B277G2	B261G

- Some samples may not have probes that will extract both alleles, but all low-resolution allele combinations will have a probe to extract one of the alleles, and a probe that will extract at least some of the alleles from the second allele group.
 - For example: If the sample has a low-resolution type of HLA-B*14xx and HLA-B*15xx, the matrix chart lists probe B559C if you select B14 from the top row (group one) and B15 from the first column (group two) of the chart. Probe B559C

will extract the B15 alleles. An empty cell indicates that there is no probe that will extract B14xx discretely from B15 alleles. However, if you refer to the Serology Group Chart, probe B261C will extract all of the B14 and will not extract the majority of B15 alleles: 15010101-150104, 1503-1507, 1512, 1514, ...1579. If it were determined that the sample had a HLA-B*1502, then probe B355C could be used to isolate the B14 allele.

- An alternative to using the charts included here, especially when choosing probes to separate samples with multiple possible allele combinations, would be to manually identify the polymorphic nucleotide positions and unique sequence elements between alleles which are targeted by HSE probes. Sequence alignment tools, available online from the European Bioinformatics Institute for the IMGT/HLA community at <http://www.ebi.ac.uk/imgt/hla/align.html>, can be used to align alleles, identify the polymorphic nucleotide positions and unique sequence elements between them, and match these to HSE probes.

- For example, the probe B559C targets polymorphic positions centered at the nucleotide position 559 (exon 3) that contain the target sequence GCGAG. A sample with low-resolution types HLA-B*47xx, HLA-B*56xx can be resolved.



Enter the alleles into the box for specific sequences requested as shown below.

IMGT/HLA Sequence Database

The latest version of the alignment tool now includes genomic sequences as well as alignments of previously sequenced regions. Where discrepancies have arisen between reported sequences and those stored in the database, the original authors have been contacted where possible, and necessary amendments to published sequences have been incorporated into this alignment. Future sequencing very closely aligned to this list and the IMGT/HLA Reference Sequence Committee would welcome any evidence that helps to maintain the accuracy of these sequence alignments.

Important: Experts note: should be aware that a bug has been reported in the program that automatically retrieves stored alignment generation. This bug caused an assembly error, but does mean that you may have to refresh the page before performing further alignments, or are currently looking into this problem. Alternative browsers like Firefox, have no report of bugs with the program.

IMGT/HLA Sequence Database Alignment Tool

Select Locus:	B	2004
Select the position to align:	Nucleotide - CDS	1999
Enter any specific coordinates requested:	47-56	1999
Enter the reference sequence:	B*47	1999
Select how you wish to view any mismatches:	Show mismatches between sequences	1999
Select how the alignment will be combined:	In Exons - nucleotide sequence displayed in codons	1999
What allele discrepancy is in this region:	Only unsequenced alleles	1999
Select type of output:	Plain text, suited for cut & paste	1999
Do you wish to align:	Align Sequences Now	1999

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The database will return sequence alignments showing mismatches between alleles as well as the exon nucleotide positions which correlate to HSE probes. Inspection of the mismatches aligned in this search reveals HLA-B*47xx matches the unique sequence element listed for HSE probe B559G while B56 alleles do not. HLA-B*56xx similarly matches HSE probe B277G2.

	518	520	538	540	558	560	570	588	598	600
D*4702B1	CCAGCCGAG	TGGAGGCGG	CCCGTGAAG	GGAGGAGCG	AGAGCTTAC	TGAGGAG	TTGCTGGAG	TGGCTCCGA	GATACCTGA	GAGCGGAG
D*4701B1B2										
D*4702										
D*4703										
D*4704										
D*4705										
D*5601										
D*5602										
D*5603										
D*5604										
D*5605B1										
D*5605B2										
D*5606										
D*5607										
D*5608										
D*5609										
D*5610										
D*5611										
D*5612										
D*5613										
D*5614										
D*5615										
D*5616										

HLA-B Probe Matrix Chart:

Allele One													
x\y	B7	B8	B13	B14	B15	B18	B27						
B7		<i>B277A</i>	B559G	<i>B261G</i>	B261C	<i>B277A</i>	B559G	<i>B277A</i>				<i>B261G</i>	B261C
								<i>B277G2</i>				<i>B317T</i>	
B8	B559G	<i>B277A</i>											
B13	<i>B277G2</i>												
	B261C	<i>B261G</i>	B261C	<i>B261G</i>									
B14	<i>B277G2</i>												
	B559G	<i>B277A</i>	B539A	<i>B539T</i>	B261G	B261C						<i>B261G</i>	<i>B261C</i>
	<i>B277G2</i>											<i>B559G</i>	
B15	<i>B277G2</i>	<i>B277A</i>	<i>B539A</i>	<i>B559C</i>	<i>B559G</i>								
	<i>B559G</i>												
B18	<i>B277G2</i>												
	<i>B277G2</i>	<i>B277A</i>	B539A	<i>B539T</i>	<i>B261G</i>	B261C							
B27	<i>B261C</i>	<i>B261G</i>	B539A	<i>B261G</i>	<i>B277A</i>								
	<i>B317T</i>												
B35		<i>B277A</i>	<i>B355C</i>	<i>B559C</i>	<i>B261G</i>	B261C	<i>B355C</i>	B559C	<i>B355A</i>	<i>B355A</i>	<i>B355C</i>	B559C	<i>B317T</i>
	<i>B277G2</i>	<i>B559C</i>	<i>B355A</i>	<i>B355A</i>	<i>B355A</i>	<i>B355A</i>	<i>B355A</i>	<i>B355A</i>	<i>B355A</i>	<i>B355A</i>	<i>B355A</i>	<i>B355A</i>	<i>B355A</i>
B37	B261C	<i>B261G</i>	B261C	<i>B261G</i>	<i>B539T</i>								
	<i>B277G2</i>												
B38	<i>B317T</i>	<i>B277A</i>	B539A	<i>B539T</i>	B559G	B261C	B317T						
	B559G				B355T								
B39	B559G		B539A	<i>B539T</i>	B559G	B261C							
	<i>B277G2</i>												
B40	<i>B277G2</i>	<i>B277A</i>	B539A	<i>B261G</i>	<i>B355T</i>	<i>B317T</i>	<i>B261C</i>	B261G	<i>B559C</i>	<i>B559G</i>	<i>B261C</i>	<i>B261G</i>	<i>B277A</i>
	<i>B277G2</i>	<i>B261G</i>		B559G		<i>B355C</i>		B559G					
B41	B261C	<i>B277A</i>	B261C	<i>B261G</i>	B539T	B539A	B261C	B539A	B559C	<i>B539A</i>	B261C	B539A	<i>B539A</i>
	B559G	<i>B539A</i>					B539T	B261G	B539T		B539T	B355T	B559G
B42	B559G	<i>B539A</i>	<i>B277A</i>										
B44		<i>B277A</i>	<i>B355C</i>	<i>B261G</i>	<i>B559G</i>	B539A	<i>B261C</i>	B261G	<i>B317T</i>	<i>B355A</i>	<i>B355C</i>		
	<i>B277G2</i>	<i>B261G</i>	<i>B559C</i>	<i>B559C</i>									
B45	B261C	B355T	B355C	<i>B261G</i>	B539T	B539A	B261C	B539A	B355C	B539T	B355C	B539T	B539A
	B355C	<i>B539A</i>	B261C	<i>B559C</i>	B559G								
B46	B261C	<i>B261G</i>	<i>B277A</i>	<i>B261G</i>	<i>B277A</i>	<i>B355C</i>	B261C	B261G	<i>B277A</i>				
	B559G	<i>B559C</i>	B539A	<i>B559C</i>	B539T	<i>B317T</i>	B277A	B559C	B539T	B277A	B261C	B559C	<i>B559C</i>
B47	B261C	<i>B261G</i>	B261C	B559G	B355T	<i>B355C</i>	B261C	B559G	B559C	<i>B559G</i>	B261C	<i>B559G</i>	<i>B277A</i>
	<i>B277G2</i>	<i>B277A</i>	B539A	<i>B261G</i>									
B48	<i>B277G2</i>	<i>B277A</i>	B539A	B559G	B355T	<i>B317T</i>		B559G	<i>B559C</i>	<i>B559G</i>	<i>B261C</i>	<i>B559G</i>	<i>B317T</i>
	<i>B277G2</i>	<i>B261G</i>		<i>B261G</i>				B261G					
B49	B261C	B355T	B355C	<i>B261G</i>	B559G	<i>B559C</i>	B261C	B355T	B317T	<i>B355C</i>	B355C	B355T	<i>B355T</i>
	B317T	<i>B559C</i>	B261C	<i>B559C</i>				B317T	B261G	B355C	B355C	B355C	
B50	B355C	B355T	B539A	<i>B261G</i>	B559G	<i>B559C</i>	B261C	B355C	B355C	<i>B355T</i>	B355C	B355T	<i>B355T</i>
	B355C		B539A	<i>B559C</i>				B355C	B355C	B355C	B355C	B355C	
B51	B317T	B355T	B317T	<i>B559C</i>	B261G	B261C	B317T	B355T	B317T	<i>B355T</i>	B317T	B355T	<i>B261C</i>
	<i>B277G2</i>							B559C	B261G				
B52	B261C	B355T	B355C	<i>B261G</i>	B559G	<i>B559C</i>	B261C	B355T	B317T	<i>B355T</i>	B355C	B355T	<i>B355T</i>
	B317T		B261C	<i>B559C</i>				B317T	B261G	B355C	B355C	B355C	
B53	B355C	B355T	B539A	<i>B559C</i>	B261C	B261C	B355C	B355C	B355C	<i>B355T</i>	B355C	B355T	<i>B261C</i>
	B317T	B355A	B317T	B355A	B559G	B559G	B317T	B559G	B317T	B355A	B355A	B355C	<i>B559C</i>
B54	B355C	B355T	<i>B277A</i>	<i>B277G2</i>	B261G	<i>B277G2</i>	B261G	<i>B277A</i>	<i>B277G2</i>	<i>B277A</i>	B277A	B277A	<i>B261G</i>
	B559G		B355C	B277A	B559G	B559G	B261C	B355C	B355C	B355C	B355C	B355C	<i>B261C</i>
B55	<i>B559G</i>	B355T	<i>B277A</i>	<i>B277G2</i>	<i>B277A</i>	<i>B277G2</i>	<i>B277A</i>	<i>B277G2</i>	<i>B277A</i>	<i>B277G2</i>	<i>B277A</i>	<i>B277G2</i>	<i>B261C</i>
			B539A	<i>B559C</i>	B559G	<i>B277G2</i>	B277A	<i>B277G2</i>	<i>B277A</i>	<i>B277G2</i>	<i>B277A</i>	<i>B277G2</i>	<i>B261C</i>
B56	B559G	B355T	<i>B277A</i>	<i>B277G2</i>	<i>B277A</i>	<i>B277G2</i>	<i>B277A</i>	<i>B277G2</i>	<i>B277A</i>	<i>B277G2</i>	<i>B277A</i>	<i>B277G2</i>	<i>B261C</i>
			B539A	<i>B559C</i>	B559G	<i>B277G2</i>	B277A	<i>B277G2</i>	<i>B277A</i>	<i>B277G2</i>	<i>B277A</i>	<i>B277G2</i>	<i>B261C</i>
B57	B261C	<i>B355A</i>	<i>B277A</i>	B355A	<i>B277A</i>	<i>B559C</i>	B261C	B355A	<i>B277A</i>	<i>B355A</i>	B277A	B355A	<i>B355A</i>
	B317T	<i>B261G</i>	B355C	<i>B261G</i>			B317T	B261G	B317T	B355C	B355C	B355C	
B58	B355C	<i>B559C</i>	B261C	<i>B559C</i>			B277A	B559C	B355C	B355C	B355C	B355C	
	B261C	<i>B277A</i>	<i>B261G</i>	<i>B277A</i>	<i>B559C</i>		B261C	B277A	<i>B355A</i>	B277A	B559C	B559G	<i>B559C</i>
B59	<i>B317T</i>	B355T	B355C	<i>B355T</i>	B261G	B261C	B317T	B355T	B559C	<i>B355T</i>	B355C	B355T	<i>B355T</i>
	B355C		B539A	<i>B539T</i>	B559G		B355C						
B67	B559G		<i>B277A</i>		<i>B277A</i>		<i>B277A</i>		<i>B277A</i>		<i>B277A</i>		
			B539A	<i>B277G2</i>	B559G	<i>B277G2</i>		<i>B277G2</i>	B559C	<i>B277G2</i>		<i>B277G2</i>	
B73	B355C	B355T	<i>B277A</i>	<i>B277G2</i>	<i>B277A</i>	<i>B277G2</i>	B355C	<i>B277G2</i>	B559C	<i>B277G2</i>	B277A	B277A	<i>B355T</i>
			B355C	<i>B559G</i>	B261G	<i>B277G2</i>		<i>B559G</i>	B355C	<i>B277G2</i>	B355C	B355C	
B78	B355C	B355T	B355C	<i>B559C</i>	B559G	B261C	B355C	B355T	B355C	<i>B355T</i>	B355C	B355T	<i>B355T</i>
	B559G		B539A	<i>B355T</i>				B559C	<i>B261G</i>		B559C	B355C	
B81		<i>B48A</i>	<i>B277A</i>		<i>B277A</i>		<i>B277A</i>		<i>B277A</i>		<i>B277A</i>	<i>B261G</i>	<i>B261C</i>
			B539A	<i>B277G2</i>	B261G	<i>B277G2</i>		<i>B277G2</i>	B559C	<i>B277G2</i>			
B82	B559G	<i>B559C</i>	<i>B277A</i>	<i>B277G2</i>	B355T	B261C	<i>B277A</i>	<i>B277G2</i>	B261G	<i>B277A</i>	B539T	<i>B277G2</i>	B539A
				<i>B277G2</i>	B539T	<i>B277G2</i>	B539T	<i>B277G2</i>	B261G	<i>B277A</i>	B539T	<i>B277G2</i>	B539A
B83	B355C	<i>B355A</i>	<i>B277A</i>		<i>B277A</i>		<i>B277A</i>		<i>B277A</i>		<i>B277A</i>	<i>B261G</i>	B539A
	B559G	<i>B559C</i>	B355C	B355A	B539T	<i>B277G2</i>	B355C	B355A	<i>B277G2</i>	<i>B277A</i>	B355C	<i>B277G2</i>	B559G
x\y	B7	B8	B13	B14	B15	B18	B27						

* Probesthat are listed in *italics* may capture both alleles.
Refer to the HLA-B Serology Group Chart and HLA-B Allele

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Allele One													
xiv	B35	B37	B38	B39	B40	B41	B42	B44					
B7	B271A B559C	B271G	B261C	B271A	B317I	B559G	B271G	B271A	B261C	B559G	B271A	B271G	B271G
B8	B559C B559A	B559C	B261G	B261C	B559I	B539A	B559I	B261G	B539A	B261C	B271A	B261G	B559C
B13	B261C	B271G	B559I	B261C	B559G B355I	B261C	B559G	B271I B559C	B539A	B539I	B271A	B261G	B559I
B14	B559C	B559C	B261G	B261C	B317I	B261G	B271C	B539A	B261C	B539I	B271A	B261G	B261C
B15	B559A	B559C	B559A	B559C	B317I	B559C	B559G	B539A	B559C	B539I	B271A	B559A	B559I
B18	B559C B559A	B559C	B559A	B261C	B317I	B559C	B559G	B539A	B261C	B539I	B271A	B559C	B559A
B21	B271I B271C	B271A	B271G	B271A	B559G	B559I	B559G	B271A	B539A	B539I	B539A	B271A	B271C
B35		B261G	B559C	B559C	B559C	B559C	B261G	B271C	B539A	B261C	B271A	B261G	B559I
B37	B261C B559C	B261G		B261C	B559A B539A	B261C	B559A	B559I	B539A	B539I	B271A	B261G	B559C
B38	B317I B559A	B559C	B559A	B261C		B317I	B559C	B539A	B539I	B261C	B271A	B559C	B559A
B39	B559C B559A	B559C	B559A	B261C		B317I	B559C	B539A	B539I	B261C	B271A	B559C	B559A
B40	B261C	B261G	B539A	B559I	B261C	B317I B559G	B261C	B559G	B539A	B539I	B271A	B261G	B559I
B41	B261C B559C	B539A	B559A	B559I	B539A	B539I	B539A	B559G	B539A		B271A	B261G	B559I
B42	B271A	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271G
B44	B559I B559C	B271G	B559C	B559C	B559C	B559C	B559C	B539A	B539I	B539A	B271A	B261G	B559C
B45	B261C	B539A	B559A	B559I	B539A	B559C	B539A	B559G	B539A	B539I	B271A	B261G	B559I
B46	B271A B261C	B271G	B559C	B271A	B559C	B559C	B271A	B559C	B539A	B539I	B271A	B261G	B559I
B47	B261C B559C	B559G	B559A	B559C	B261C	B559G	B261C	B559G	B317I	B539A	B559G	B559C	B559C
B48	B261C	B559G	B539A	B559I	B261C	B317I B559G	B261C	B559G	B539A	B539I	B271A	B261G	B559I
B49	B317I B261C	B559I	B559A	B559C	B559C	B317I B559C	B559C	B559C	B539A	B539I	B271A	B261G	B559I
B50	B261C B559A	B559I	B559A	B559C	B559C	B559C	B559C	B559C	B539A	B539I	B271A	B261G	B559I
B51	B317I B559A	B559I	B261G	B261C	B559C	B317I B559C	B261C	B261G	B261C	B261C	B271A	B261G	B261C
B52	B317I B261C	B559I	B559A	B559C	B559C	B317I B559C	B559C	B559C	B539A	B539I	B271A	B261G	B559I
B53	B317I	B559I	B261G	B559C	B559C	B317I B559C	B559C	B559C	B539A	B539I	B271A	B261G	B559I
B54	B271A B559C	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271G
B55	B271A B559A	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271G
B56	B271A	B271G	B539A	B271C	B271A	B271G	B271A	B271G	B539A	B539I	B271A	B271G	B271G
B57	B317I B271A	B261G	B271A	B559C	B271A	B559C	B271A	B559C	B539A	B539I	B271A	B261G	B271A
B58	B317I B271A	B261G	B271A	B559C	B271A	B559C	B271A	B559C	B539A	B539I	B271A	B261G	B271A
B59	B317I B261C	B559I	B261G	B559C	B559C	B317I B559C	B559C	B559C	B539A	B539I	B271A	B261G	B271A
B60	B559C B559A	B559C	B559A	B261C	B559C	B559C	B559C	B559C	B539A	B539I	B271A	B261G	B271A
B61	B559C B559A	B559C	B559A	B261C	B559C	B559C	B559C	B559C	B539A	B539I	B271A	B261G	B271A
B62	B271A B539I	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271G
B63	B271A B539I	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271G
B64	B271A B539I	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271A	B271G	B271G

Allele Two

*Probes that are listed in **italics** may capture both alleles.
Refer to the HLA-B Sequencing Group Chart and HLA-B Allele

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*Probes that are listed in ***italics*** may capture both alleles. Refer to the HLA-B Serology Group Chart and HLA-B Allele Level Chart.

*Probes that are listed in **italics** may capture both alleles. Refer to the HLAB Serology Group Chart and HLAB Allele Level Chart.

		Allele One					
xiv	B7	B8	B13	B14	B15	B18	
B7		3559C	3261C	3261C	3559C	3261C	3261C
B8	3559C	3261C	3261C	3261C	3559C	3261C	3261C
B13	3261C	3261C	3261C	3261C	3261C	3261C	3261C
B14	3559C	3559C	3261C	3261C	3559C	3261C	3261C
B15	3261C	3559C	3559C	3559C	3559C	3261C	3261C
B18	3261C	3559C	3261C	3261C	3559C	3261C	3261C
B27	3261C	3559C	3261C	3261C	3559C	3261C	3261C
B35	3261C	3559C	3261C	3261C	3559C	3261C	3261C
B37	3261C	3261C	3261C	3261C	3559C	3261C	3261C
B38	3559C	3559C	3559C	3261C	3559C	3261C	3261C
B39	3559C	3559C	3559C	3261C	3559C	3261C	3261C
B40	3261C	3559C	3559C	3559C	3559C	3261C	3261C
B41	3261C	3261C	3559C	3559C	3559C	3261C	3261C
B42	3559C	3261C	3261C	3261C	3559C	3261C	3261C
B44	3261C	3559C	3559C	3559C	3559C	3261C	3261C
B45	3261C	3559C	3559C	3559C	3559C	3261C	3261C
B46	3559C	3261C	3559C	3559C	3559C	3261C	3261C
B47	3261C	3261C	3559C	3559C	3559C	3261C	3261C
B48	3261C	3559C	3559C	3559C	3559C	3261C	3261C
B49	3261C	3559C	3559C	3559C	3559C	3261C	3261C
B50	3261C	3559C	3559C	3559C	3559C	3261C	3261C
B51	3559C	3559C	3559C	3559C	3559C	3261C	3261C
B52	3261C	3559C	3559C	3559C	3559C	3261C	3261C
B53	3559C	3559C	3559C	3559C	3559C	3261C	3261C
B54	3559C	3559C	3559C	3559C	3559C	3261C	3261C
B55	3559C	3559C	3559C	3559C	3559C	3261C	3261C
B56	3559C	3559C	3559C	3559C	3559C	3261C	3261C
B57	3261C	3559C	3559C	3559C	3559C	3261C	3261C
B58	3261C	3559C	3559C	3559C	3559C	3261C	3261C
B59	3559C	3559C	3559C	3559C	3559C	3261C	3261C
B67	3559C	3559C	3559C	3559C	3559C	3261C	3261C
B73	3559C	3559C	3559C	3559C	3559C	3261C	3261C
B78	3559C	3559C	3559C	3559C	3559C	3261C	3261C
B81	3559C	3559C	3559C	3559C	3559C	3261C	3261C
B82	3559C	3559C	3559C	3559C	3559C	3261C	3261C
B83	3559C	3559C	3559C	3559C	3559C	3261C	3261C
xiv	B7	B8	B13	B14	B15	B18	

*Probes that are listed in *italics* may capture both alleles. Refer to

HLA-B Serology Group Chart: *(the most effective probes are listed first;
in terms of capturing the most alleles per serology group)*

	Targeted by probes:	Alleles weakly targeted	Alleles not targeted	Unknown Sequence Comparison
B7	B261C		B*0713	
	B317T		B*0727, 0736, 0738	
	B355C		B*0712, 0714, 0718	
	B559G		B*0719, 0720, 0724, 0731, 0734	
	B277G2		B*0703, 0708, 0713, 0716, 0727, 0732, 0737, 0738	
	B48C			B*070203, 070204, 0708, 0710-0717, 0719-0732, 0734-0738
	B539T		B*0704, 0719, 0735-0738, B*070201-0703, 0705-0718, 0720-0725, 0727-0733	
	B277A	B*0737	B*070201-070204, 0704-0707, 0709-0715, 0717-0726, 0728-0731, 0733-0736	
	B539A		B*070201-0703, 0705-0718, 0720-0724, 0726-0738	
	B355A		B*070201-0711, 0713, 0715-0717, 0719-0738	
	B559C		B*070201-0719, 0721-0723, 0725-0738	
	B261G		B*070201-0712, 0714-0738	
	B48A		B*070201, 070202, 0703-0707, 0709, 0718, 0733	B*070203, 070204, 0708, 0710-0717, 0719-0732, 0734-0738
B8	B277A	B*0805		
	B355C		B*0809	
	B261C		B*0817, B*0810	
	B539A		B*0806, 0813, 0820	
	B317T		B*0802, 0803	
	B48C			B*0803-0807, 0809-0818, 0821
	B539T		B*0801-0805, 0807-0812, 0814-0819N, 0821, B*0806, 0820	
	B261G		B*0801-0816, 0818-0821	
	B355T		B*0801-0808N, 0810-0821	
	B559C		B*0801-0820	
	B48A		B*0801, 0802, 0808N, 0819N, 0820	B*0803-0807, 0809-0818, 0821
B13	B277A			
	B539T			
	B261G		B*1307N	
	B559G		B*1303-1306, 1312	
	B355T		B*1301, 1306, 1307N, 1310-1313	
	B48A			B*1306, 1307N, 1309-1312
	B355A		B*1302-1304, 1308-1311	
	B559C		B*1301, 1302, 1306-1313	
	B355C		B*1301-1309, 1312, 1313	
	B317T		B*1301-1308, 1310-1313	
	B48C		B*1301-1304, 1308, 1313	B*1306, 1307N, 1309-1312

	Targeted by probes:	Alleles weakly targeted	Alleles not targeted	Unknown Sequence Comparison
B14	B261C			
	B317T			
	B355C			
	B277A			
	B539T		B*1403	
	B48C			B*1403, 1404, 140601, 140602
	B48A		B*1401, 1402, 1405	B*1403, 1404, 140601, 140602
B15	B277A	B*1574	B*1516-15170102, 1567, 1576	
	B559C		B*1540, 1542, 1544, 1547, 1549, 1550, 1552, 1569, 1583	
	B317T		B*1513, 1516-151702, 1523, 1524, 1536, 1543, 1567	
	B355C		B*1502, 1504, 1513, 1516, 1520, 1521, 1525, 1536, 1542, 1544, 1562, 1567, 1577, 1580, 1583	
	B261G		B*1502, 1508-151102, 1513, 1515, 1518, 1521, 1523, 1529, 1531, 1537, 1544, 1551, 1552, 1555, 1564, 1572, 1576, 1580	
	B539T		B*1501, 1504, 1507, 1508, 151101-1512, 1514, 1515, 1519, 1524, 1526N-1528, 1530, 1532-1535, 1538, 1543, 1545, 1546, 1550, 1551, 1553, 1554, 1556-1560, 1563, 1566, 1568, 1570, 1571, 1573, 1575-1579N, 1581-1583, 1547, 1549, 1565	

	Targeted by probes:	Alleles weakly targeted	Alleles not targeted	Unknown Sequence Comparison
B15	B261C		B*15010101-150104, 1503-1507, 1512, 1514, 1516-15170102, 1519, 1520, 1524-1528, 1530, 1532-1536, 1538-1543, 1545-1550, 1553, 1554, 1556-1563, 1565-1571, 1573-1575, 1577-1579, 1581-1583	
	B355A		B*15010101-150104, 1503-1512, 1514-1519, 1523, 1524, 1526N-1535, 1537-1543, 1545-1561, 1563-1576, 1578, 1579N, 1581-1583	
	B559G		B*15010101-1539, 1542-1546, 1548, 1550, 1551, 1553-1583	
	B355T		B*15010101-1503, 1505-1515, 15170101-1540, 1543-1566, 1568-1582	
	B277G2		B*15010101-1575, 1577-1583	
	B539A		B*15010101-1550, 1552-1582	
	B48C		B*150102-150104, 1505-1507, 151102, 1527, 1530-1545, 1547-1551, 1556, 1560-1565, 1567-1576, 1578-1582, B*15010101, 15010102N, 1502-1504, 1508-151101, 1512-1526N, 1528, 1529, 1546, 1552-1555, 1557, 1558, 1566, 1577, 1583	
	B48A		B*15010101, 15010102N, 1502-1504, 1508-151101, 1512-1526N, 1528, 1529, 1546, 1552-1555, 1557, 1558, 1566, 1577, 1583, B*150102-150104, 1505-1507, 151102, 1527, 1530-1545, 1547-1551, 1556, 1560-1565, 1567-1576, 1578-1582	
B18	B277A			
	B355C			
	B261C		B*1812	
	B317T		B*1809	
	B539T		B*1819, B*1813	
	B48A	B*1817N		B*180102, 1804, 1805, 1807-1815, 1818, 1819
	B559G		B*180101-1809, 1811-1819	
	B261G		B*180101-1811, 1813-1819	
	B48C		B*180101, 1802, 1803, 1806, 1817N	B*180102, 1804, 1805, 1807-1815, 1818, 1819
	Targeted by probes:	Alleles weakly targeted	Alleles not targeted	Unknown Sequence Comparison

	Targeted by probes:	Alleles weakly targeted	Alleles not targeted	Unknown Sequence Comparison
B27	B539T		B*2725	
	B261G		B*2723	
	B559G		B*2715, 2725	
	B355C		B*2714, 2719	
	B277G2		B*2712, 2716, 2718, 2723	
	B48A			B*2701, 270503, 270506, 2707, 2710, 2715-2717, 2719-2725
	B277A		B*2701-2711, B*2713-2715, 2717, 2719-2721, 2724, 2725	
	B317T		B*2701-2707, 2709-2711, 2713-2717, 2719-2725	
	B355A		B*2701-2718, 2720-2725	
	B355T		B*2701-2713, 2715-2725	
	B261C		B*2701-2721, 2724, 2725	
	B559C		B*2701-2724	
	B48C		B*2702-270502, 270504, 270505, 2706, 2708, 2709, 2711-2714, 2718	B*2701, 270503, 270506, 2707, 2710, 2715-2717, 2719-2725
B35	B317T			
	B277A			
	B261C		B*3510, 3513, 3516, 3528	
	B559C		B*3515, 3531, 3533, 3535	
	B539T		B*351401, 351402, 3538, 3543, 3544, B*3508, 3518, 3545	
	B355A		B*3505, 3522, 3531, 3532, 3537, 3543, 3544	
	B48A			B*350102, 350902, 3510, 3513, 351401, 3516-3527, 3529, 3530, 3532-3539, 3541, 3544, 3545, 3547-3549
	B355C		B*350101-3504, 3506-3521, 3523-3530, 3533-3542, 3545-3549	
	B559G		B*350101-351402, 3516-3530, 3532, 3534-3549	
	B261G		B*350101-350902, 3511, 3512, 351401-3515, 3517-3527, 3529-3549	
	B539A		B*350101-3537, 3539-3549	
	B355T		B*350101-3536, 3538-3549	
	B48C		B*350101, 3502-350901, 3511, 3512, 351402, 3515, 3528, 3531, 3540N-3543, 3545	B*350102, 350902, 3510, 3513, 351401, 3516-3527, 3529, 3530, 3532-3539, 3544, 3545, 3547-3548
	B48C		B*350101, 3502-350901, 3511, 3512, 351402, 3515, 3528, 3531, 3540N-3543, 3546	B*350102, 350902, 3510, 3513, 351401, 3516-3527, 3529, 3530, 3532-3539, 3544, 3545, 3547-3549

	Targeted by probes:	Alleles weakly targeted	Alleles not targeted	Unknown Sequence Comparison
B37	B261G			
	B277A			
	B355C		B*3701, 3703N-3705	
	B355A	B*3701, 3703N-3706, 3708	B*3702, B*3707	
	B539A		B*3702, 3707	
	B48A			B*3703N, B*3707
	B559G		B*3701, 3703N-3705	
	B317T		B*3701-3704, 3707	
	B539T		B*3701, 3703-3707	
	B48C		B*3701, 3702, 3704-3705	B*3703N, 3707
B38	B277A			
	B539T			
	B355C			
	B261C		B*3803, 3804	
	B261G		B*3801-380202, 3805-3809	
	B48C			B*380202-3809
	B559C		B*3801-3807, 3809	
	B48A		B*3801-380201	B*380202-3809
B39	B317T			
	B277A			
	B355C		B*390601, 390602	
	B539T		B*3918, B*3908, 3911	
	B261C		B*390201, 390202, 3908, 3913, 3922, 3923	
	B48C			B*390104, 3907, 3911-3916, 3918-3923, 3925N-3928
	B261G		B*390101-390104, 3903-3907, 3909-3912, 3914-3920, 3924-3928	
	B355T		B*390101-3905, 3907-3928	
	B48A		B*390101, 390103, 390201-390602, 3908-3910, 3917, 3924	B*390104, 3907, 3911-3916, 3918-3923, 3925N-3928
B40	B277A			
	B261G		B*4008, 4025	
	B317T		B*4013, 4019, 4047	
	B559G		B*4005, 4026, 4028, 4039	
	B539T		B*4015, 4016, 4023, 4032	
	B355C		B*4004, 40060101, 40060102, 4028, 4030, 4034, 4044	
	B48A		B*400101, 400102, 4007, 4012, 4016, 4023	B*400103, 400104, 4009-4011, 401401
	B48C		B*4002-40060102, 4008, 4013, 4020, 4039, B*4012	B*400103, 400104, 4009-4011, 401401 4015, 4018, 4019, 4021, 4022N, 4024-4038, 4040-4048
	B355A		B*400101-4003, 4005-4027, 4029, 4031-4033, 4035-4048	
	B559C		B*400101-4004, 40060101-4025, 4027, 4029	
	B355T		B*400101-4005, 4007-4043, 4045-4048	
	B261C		B*400101-4007, 4009-4024, 4026-4048	

	Targeted by probes:	Alleles weakly targeted	Alleles not targeted	Unknown Sequence Comparison
B41	B539A			
	B261G			
	B317T			
	B277A			
	B355T		B*4102-4104	
	B355C		B*4101, 4105, 4106	
	B48C			B*4103-4106
	B48A		B*4101, 4102	B*4103-4106
B42	B261C			
	B277G2			
	B317T			
	B539A			
	B355C		B*4204	
	B48C			B*4202-4205
	B355T		B*4201, 4202, 4205	
	B48A		B*4201	B*4202-4205
B44	B277A			
	B261G		B*4406, 4412	
	B559C		B*4404, 4416, 4421, 4431	
	B355A		B*4415, 4418, 4420, 4431	
			B*440301-4404, 4407, 4410, 4413, 4426, 4428-4432, 4435, 4436-4439	
	B539A			
	B48A		B*4418	B*440202, 440203, 4410-4412, 4414-4417, 4420-4422, 4424-4430, 4432-4439
	B539T		B*44020101-440203, 4404, 4405, 4406, 4408, 4409, 4411, 4412, 4414-4425, 4427, 4428, 4433-4435	
	B559G		B*44020101-4415, 4417-4420, 4422-4430, 4432-4439	
	B355T		B*44020101-4414, 4416, 4417, 4419N, 4421-4439	
	B48C		B*44020101, 44020102S, 440301-4409, 4413, 4419N, 4423N, 4431	B*440202, 440203, 4410-4412, 4414-4417, 4420-4422, 4424-4430, 4432-4439
	B261C		B*44020101-4405, 4407-4411, 4413-4439	
	B317T		B*44020101-4408, 4410-4438	
	B355C		B*44020101-4430, 4432-4438	

	Targeted by probes:	Alleles weakly targeted	Alleles not targeted	Unknown Sequence Comparison
B45	B261G			
	B317T			
	B355T			
	B539A			
	B559C			
	B277A		B*4506	
	B48C			B*4502, 4503, 4505, 4506
	B277G2		B*4501-4505	
	B48A		B*4501, 4504	B*4502, 4503, 4505, 4506
B46	B261G			
	B317T			
	B355C			
	B559C			
	B277G2		B*4601, 4602	
	B48C		B*4601	B*4602
	B48A		B*4601	B*4602
B47	B559G			
	B261G			
	B277A			
	B539T			
	B355C			
	B48A			B*4703, 4704
	B317T		B*47010101, 47010102, 4703, 4704	
	B48C		B*47010101-4702	B*4703, 4704
B48	B317T			
	B277A			
	B559G		B*4802	
	B261G		B*4806	
	B539T		B*4805, 4808	
	B355C		B*4802	
	B48C			B*4803, 4804, 4806, 4808
	B48A		B*4801, 4802, 4805	B*4803, 4804, 4806, 4808
	B355A		B*4801, 4803-4808	
	B261C		B*4801-4805, 4807, 4808	
	B559C		B*4801, 4803-4808	
B49	B355T			
	B261G			
	B559C			
	B277A			
	B539T			
	B48C			B*4902, 4903
	B48A		B*4901	B*4902, 4903
	B48C			B*4902, 4903

	Targeted by probes:	Alleles weakly targeted	Alleles not targeted	Unknown Sequence Comparison
B50	B355T			
	B261G			
	B559C			
	B317T			
	B277A			
	B539T			
	B48C			B*5004
	B48A		B*5001, 5002	B*5004
B51	B261C			
	B277A			
	B355T		B*5104, 5106	
	B539T		B*5108, 5120, B*5105, 5129	
	B559C		B*5110, 5116, 5121, 5131, 5134	
	B48A			B*510103, 510104, 5105-5107, 5109-5134
	B559G		B*510101-5109, 5111N-5115, 5117-5130, 5132, 5133	
	B539A		B*510101-5107, 5109-5119, 5121-5134	
	B355A		B*510101-5103, 5105-5134	
	B48C		B*510101, 510102, 510105-5104, 5108	B*510103, 510104, 5105-5107, 5109-5134
B52	B355T			
	B261G			
	B559C			
	B277A			
	B539T			
	B48A			B*520103-5203, 5205
	B48C		B*520101, 520102, 5204	B*520103-5203, 5205
B53	B261C			
	B559C			
	B277A			
	B539T			
	B355A	B*5307		
	B48A			B*5302-5309
	B355C		B*5301-5306, 5307, 5308, 5309	
	B48C		B*5301	B*5302-5309
B54	B277G2			
	B355T			
	B261C			
	B317T			
	B539T			
	B48A		B*5401	B*5402
	B48C		B*5401	B*5402

	Targeted by probes:	Alleles weakly targeted	Alleles not targeted	Unknown Sequence Comparison
B55	B277G2			
	B261C			
	B317T			
	B539T		B*5509	
	B355T		B*5504, 5508, 5514	
	B355C		B*5501-5503, 5505, 5507, 5509-5516	
	B559C		B*5501-5507, 5509-5516	
	B559G		B*5501-5508, 5510-5516	
	B48A		B*5501, 5502, 5505, 5512, 5516	B*5503, 5504, 5507-5511, 5513-5515
	B48C		B*5501, 5502, 5505, 5512, 5516	B*5503, 5504, 5507-5511, 5513-5515
B56	B277G2	B*5608		
	B261C		B*5608	
	B317T		B*5607	
	B539T		B*5603	
	B559C		B*5610, 5612	
	B355T		B*5602-5604, 5609-5612	
	B355C		B*5601, 560501-5609, 5611, 5612	
	B355A		B*5601-5608, 5610	
	B261G		B*5601-5607, 5609-5612	
	B48A		B*5601-5603, 5611	B*5604-5610, 5612
	B48C		B*5601-5603, 5611	B*5604-5610, 5612
B57	B355A			
	B261G			
	B559C			
	B539T		B*5702, 5704, 5705, 5709	
	B48A			B*570102, 570302-5705, 5707-5709
	B539A		B*570101-5708	
	B48C		B*570101, 5702, 570301, 5706	B*570102, 570302-5705, 5707-5709
B58	B539T			
	B261G	B*5804		
	B559C		B*5805	
	B355A		B*5802, 5806-5808	
	B48A			B*5805-5809
	B355C		B*5801, 5804, 5805, 5808, 5809	
	B355T		B*5801-5807, 5809	
	B48C		B*5801-5804	B*5805-5809
	Targeted by probes:	Alleles weakly targeted	Alleles not targeted	Unknown Sequence Comparison

	Targeted by probes:	Alleles weakly targeted	Alleles not targeted	Unknown Sequence Comparison
B59	B355T			
	B261C			
	B277A			
	B539T			
	B48C		B*5901	
B67	B317T			
	B539T			
	B355C			
	B277G2		B*6702	
	B261C		B*6702	
	B48C			B*670102
	B261G		B*670101, 670102	
B73	B48A		B*670101, 6702	B*670102
	B48C			
	B277G2	B*7301		
	B559G			
	B355T			
	B261C			
	B317T			
B78	B539T			
	B355T			
	B559C			
	B317T			
	B277A			
	B539T			
	B261C		B*7805	
	B48A			B*780202-7805
	B261G		B*7801-7804	
B81	B48C		B*7801, 780201	B*780202-7805
	B277G2			
	B559G			
	B261C			
	B317T			
	B539T			
	B355C			
	B48C		B*8101	
	B48A		B*8102	
B82	B277G2			
	B539A			
	B261C			
	B317T			
	B355C			
	B559C		B*8201	
	B48C		B*8202	B*8201
	B48A		B*8202	B*8201
B83	B355A			
	B277G2			
	B539A			
	B261C			
	B559C			
	B317T			
	B48A			
Note:		This information has not been confirmed for every probe / allele combination. No guarantee can be made that the probes will actually perform as indicated.	No guarantee can be made that the probes will actually perform as indicated.	

This information has not been confirmed for every probe/allele combination. No guarantee can be made that the probes will actually perform as indicated.

HLA-B Allele Level Chart:

Allele	B48A	B48C	B261C ⁴	B261G ⁵	B277A	B277G2	B317T ⁷	B355A ¹	B355C ⁹	B355T	B539A ³	B539T ⁸	B559C ⁶	B559G ²
B*070201														
B*070202														
B*070203	?	?												
B*070204	?	?												
B*0703														
B*0704														
B*0705														
B*0706														
B*0707														
B*0708	?	?												
B*0709														
B*0710	?	?												
B*0711	?	?												
B*0712	?	?												
B*0713	?	?												
B*0714	?	?												
B*0715	?	?												
B*0716	?	?												
B*0717	?	?												
B*0718														
B*0719	?	?												
B*0720	?	?												
B*0721	?	?												
B*0722	?	?												
B*0723	?	?												
B*0724	?	?												
B*0725	?	?												
B*0726	?	?												
B*0727	?	?												
B*0728	?	?												
B*0729	?	?												
B*0730	?	?												
B*0731	?	?												
B*0732	?	?												
B*0733														
B*0734	?	?												
B*0735	?	?												
B*0736	?	?												
B*0737	?	?												
B*0738	?	?												
B*0801														
B*0802														
B*0803	?	?												
B*0804	?	?												
B*0805	?	?												
B*0806	?	?												
B*0807	?	?												
B*0808N														
B*0809	?	?												
B*0810	?	?												
B*0811	?	?												
B*0812	?	?												
B*0813	?	?												
B*0814	?	?												
B*0815	?	?												
B*0816	?	?												
B*0817	?	?												
Allele	B48A	B48C	B261C ⁴	B261G ⁵	B277A	B277G2	B317T ⁷	B355A ¹	B355C ⁹	B355T	B539A ³	B539T ⁸	B559C ⁶	B559G ²

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Allele	B48A	B48C	B261C ⁴	B261G ⁵	B277A	B277G2	B317T ⁷	B355A ¹	B355C ⁹	B355T	B539A ³	B539T ⁸	B559C ⁶	B559G ²
B*0818	?	?												
B*0819N														
B*0820														
B*0821	?	?												
B*1301														
B*1302														
B*1303														
B*1304														
B*1306	?	?												
B*1307N	?	?												
B*1308														
B*1309	?	?												
B*1310	?	?												
B*1311	?	?												
B*1312	?	?												
B*1313														
B*1401														
B*1402														
B*1403	?	?												
B*1404	?	?												
B*1405														
B*140601	?	?												
B*140602	?	?												
B*15010101														
B*15010102N														
B*150102	?	?												
B*150103	?	?												
B*150104	?	?												
B*1502														
B*1503														
B*1504														
B*1505	?	?												
B*1506	?	?												
B*1507	?	?												
B*1508														
B*1509														
B*1510														
B*151101														
B*151102	?	?												
B*1512														
B*1513														
B*1514														
B*1515														
B*1516														
B*15170101														
B*15170102														
B*1518														
B*1519														
B*1520														
B*1521														
B*1523														
B*1524														
B*1525														
B*1526N														
B*1527	?	?												
B*1528														
B*1529														
B*1530	?	?												
B*1531	?	?												
Allele	B48A	B48C	B261C ⁴	B261G ⁵	B277A	B277G2	B317T ⁷	B355A ¹	B355C ⁹	B355T	B539A ³	B539T ⁸	B559C ⁶	B559G ²

Allele	B48A	B48C	B261C ⁴	B261G ⁵	B277A	B277G2	B317T ⁷	B355A ¹	B355C ⁹	B355T	B539A ³	B539T ⁸	B559C ⁶	B559G ²
B*1532	?	?												
B*1533	?	?												
B*1534	?	?												
B*1535	?	?												
B*1536	?	?												
B*1537	?	?												
B*1538	?	?												
B*1539	?	?												
B*1540	?	?												
B*1542														
B*1543	?	?												
B*1544	?	?												
B*1545	?	?												
B*1546														
B*1547	?	?												
B*1548	?	?												
B*1549	?	?												
B*1550	?	?												
B*1551	?	?												
B*1552														
B*1553														
B*1554														
B*1555														
B*1556	?	?												
B*1557														
B*1558														
B*1560	?	?												
B*1561	?	?												
B*1562	?	?												
B*1563	?	?												
B*1564	?	?												
B*1565	?	?												
B*1566														
B*1567	?	?												
B*1568	?	?												
B*1569	?	?												
B*1570	?	?												
B*1571	?	?												
B*1572	?	?												
B*1573	?	?												
B*1574	?	?												
B*1575	?	?												
B*1576	?	?												
B*1577														
B*1578	?	?												
B*1579N	?	?												
B*1580	?	?												
B*1581	?	?												
B*1582	?	?												
B*1583														

Allele	B48A	B48C	B261C ⁴	B261G ⁵	B277A	B277G2	B317T ⁷	B355A ¹	B355C ⁹	B355T	B539A ³	B539T ⁸	B559C ⁶	B559G ²
B*180101														
B*180102	?	?												
B*1802														
B*1803														
B*1804	?	?												
B*1805	?	?												
B*1806														
B*1807	?	?												
B*1808	?	?												
B*1809	?	?												
B*1810	?	?												
B*1811	?	?												
B*1812	?	?												
B*1813	?	?												
B*1814	?	?												
B*1815	?	?												
B*1817N														
B*1818	?	?												
B*1819	?	?												
B*2701	?	?												
B*2702														
B*2703														
B*2704														
B*270502														
B*270503	?	?												
B*270504														
B*270505														
B*270506	?	?												
B*2706														
B*2707	?	?												
B*2708														
B*2709														
B*2710	?	?												
B*2711														
B*2712														
B*2713														
B*2714														
B*2715	?	?												
B*2716	?	?												
B*2717	?	?												
B*2718														
B*2719	?	?												
B*2720	?	?												
B*2721	?	?												
B*2723	?	?												
B*2724	?	?												
B*2725	?	?												
B*350101														
B*350102	?	?												
B*3502														
B*3503														
B*3504														
B*3505														
B*3506														
B*3507														
B*3508														
B*350901														

Allele	B48A	B48C	B261C ⁴	B261G ⁵	B277A	B277G2	B317T ⁷	B355A ¹	B355C ⁹	B355T	B539A ³	B539T ⁸	B559C ⁶	B559G ²
B*350902	?	?												
B*3510	?	?												
B*3511														
B*3512														
B*3513	?	?												
B*351401	?	?												
B*351402														
B*3515														
B*3516	?	?												
B*3517	?	?												
B*3518	?	?												
B*3519	?	?												
B*3520	?	?												
B*3521	?	?												
B*3522	?	?												
B*3523	?	?												
B*3524	?	?												
B*3525	?	?												
B*3526	?	?												
B*3527	?	?												
B*3528														
B*3529	?	?												
B*3530	?	?												
B*3531														
B*3532	?	?												
B*3533	?	?												
B*3534	?	?												
B*3535	?	?												
B*3536	?	?												
B*3537	?	?												
B*3538	?	?												
B*3539	?	?												
B*3540N														
B*3541	?													
B*3542														
B*3543														
B*3544	?	?												
B*3545	?	?												
B*3546														
B*3547	?	?												
B*3548	?	?												
B*3549	?	?												
B*3701														
B*3702														
B*3703N	?	?												
B*3704														
B*3705														
B*3707	?	?												
Allele	B48A	B48C	B261C ⁴	B261G ⁵	B277A	B277G2	B317T ⁷	B355A ¹	B355C ⁹	B355T	B539A ³	B539T ⁸	B559C ⁶	B559G ²

Allele	B48A	B48C	B261C ⁴	B261G ⁵	B277A	B277G2	B317T ⁷	B355A ¹	B355C ⁹	B355T	B539A ³	B539T ⁸	B559C ⁶	B559G ²
B*3801														
B*380201														
B*380202	?	?												
B*3803	?	?												
B*3804	?	?												
B*3805	?	?												
B*3806	?	?												
B*3807	?	?												
B*3808	?	?												
B*3809	?	?												
B*390101														
B*390103														
B*390104	?	?												
B*390201														
B*390202														
B*3903														
B*3904														
B*3905														
B*390601														
B*390602														
B*3907	?	?												
B*3908														
B*3909														
B*3910														
B*3911	?	?												
B*3912	?	?												
B*3913	?	?												
B*3914	?	?												
B*3915	?	?												
B*3916	?	?												
B*3917														
B*3918	?	?												
B*3919	?	?												
B*3920	?	?												
B*3922	?	?												
B*3923	?	?												
B*3924														
B*3925N	?	?												
B*3926	?	?												
B*3927	?	?												
B*3928	?	?												
B*400101														
B*400102														
B*400103	?	?												
B*400104	?	?												
B*4002														
B*4003														
B*4004														

Allele	B48A	B48C	E261C ⁴	E261G ⁵	E277A	E277G2	E317T ⁷	E355A ¹	E355C ⁹	E355T	E539A ³	E539T ⁸	E559C ⁶	E559G ²
B*40060102														
B*4007														
B*4008														
B*4009	?	?												
B*4010	?	?												
B*4011	?	?												
B*4012														
B*4013														
B*401401	?	?												
B*401402	?	?												
B*401403	?	?												
B*4015	?	?												
B*4016														
B*4018	?	?												
B*4019	?	?												
B*4020														
B*4021	?	?												
B*4022N	?	?												
B*4023														
B*4024	?	?												
B*4025	?	?												
B*4026	?	?												
B*4027	?	?												
B*4028	?	?												
B*4029	?	?												
B*4030	?	?												
B*4031	?	?												
B*4032	?	?												
B*4033	?	?												
B*4034	?	?												
B*4035	?	?												
B*4036	?	?												
B*4037	?	?												
B*4038	?	?												
B*4039	?													
B*4040	?	?												
B*4042	?	?												
B*4043	?	?												
B*4044	?	?												
B*4045	?	?												
B*4046	?	?												
B*4047	?	?												
B*4048	?	?												
B*4101														
B*4102														
B*4103	?	?												
B*4104	?	?												
B*4105	?	?												
B*4106	?	?												
B*4201														
B*4202	?	?												
B*4204	?	?												
B*4205	?	?												
B*44020101														
B*44020102S														
B*440202	?	?												
B*440203	?	?												
B*440301														
B*440302														
Allele	B48A	B48C	E261C ⁴	E261G ⁵	E277A	E277G2	E317T ⁷	E355A ¹	E355C ⁹	E355T	E539A ³	E539T ⁸	E559C ⁶	E559G ²

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Allele	B*48A	B*48C	B*261C ⁴	B*261G ⁵	B*277A	B*277G2	B*317T ⁷	B*355A ¹	B*355C ⁹	B*355T	B*539A ³	B*539T ⁸	B*559C ⁶	B*559G ²
B*4404														
B*4405														
B*4406														
B*4407														
B*4408														
B*4409														
B*4410	?	?												
B*4411	?	?												
B*4412	?	?												
B*4413														
B*4414	?	?												
B*4415	?	?												
B*4416	?	?												
B*4417	?	?												
B*4418														
B*4419N														
B*4420	?	?												
B*4421	?	?												
B*4422	?	?												
B*4423N														
B*4424	?	?												
B*4425	?	?												
B*4426	?	?												
B*4427	?	?												
B*4428	?	?												
B*4429	?	?												
B*4430	?	?												
B*4431														
B*4432	?	?												
B*4433	?	?												
B*4434	?	?												
B*4435	?	?												
B*4436	?	?												
B*4437	?	?												
B*4438	?	?												
B*4439	?	?												
B*4501														
B*4502	?	?												
B*4503	?	?												
B*4504														
B*4505	?	?												
B*4506	?	?												
B*4601														
B*4602	?	?												
B*47010101														
B*47010102														
B*4702														
B*4703	?	?												
B*4704	?	?												

Allele	B48A	B48C	B261C ⁴	B261G ⁵	B277A	B277G2	B317T ⁷	B355A ¹	B355C ⁹	B355T	B539A ³	B539T ⁸	B559C ⁶	B559G ²
B*4801														
B*4802														
B*4803	?	?												
B*4804	?	?												
B*4805														
B*4806	?	?												
B*4807	?	?												
B*4808														
B*4901														
B*4902	?	?												
B*4903	?	?												
B*5001														
B*5002														
B*5004	?	?												
B*510101														
B*510102														
B*510103	?	?												
B*510104	?	?												
B*510105														
B*510201														
B*510202														
B*5103														
B*5104														
B*5105	?	?												
B*5106	?	?												
B*5107	?	?												
B*5108														
B*5109	?	?												
B*5110	?	?												
B*5111N	?	?												
B*5112	?	?												
B*511301	?	?												
B*511302	?	?												
B*5114	?	?												
B*5115	?	?												
B*5116	?	?												
B*5117	?	?												
B*5118	?	?												
B*5119	?	?												
B*5120	?	?												
B*5121	?	?												
B*5122	?	?												
B*5123	?	?												
B*5124	?	?												
B*5126	?	?												
B*5127N	?	?												
B*5128	?	?												
B*5129	?	?												

Allele	B*48A	B*48C	B*261C ⁴	B*261G ⁵	B*277A	B*277G2	B*317T ⁷	B*355A ¹	B*355C ⁹	B*355T	B*539A ³	B*539T ⁸	B*559C ⁶	B*559G ²
B*520101														
B*520102														
B*520103	?	?												
B*520104	?	?												
B*5202	?	?												
B*5203	?	?												
B*5204														
B*5205	?	?												
B*5301														
B*5302	?	?												
B*5303	?	?												
B*5304	?	?												
B*5305	?	?												
B*5306	?	?												
B*5307	?	?												
B*5308	?	?												
B*5309	?	?												
B*5401														
B*5402	?	?												
B*5501														
B*5502														
B*5503	?	?												
B*5504	?	?												
B*5505														
B*5507	?	?												
B*5508	?	?												
B*5509	?	?												
B*5510	?	?												
B*5511	?	?												
B*5512														
B*5513	?	?												
B*5514	?	?												
B*5515	?	?												
B*5516														
B*5601														
B*5602														
B*5603														
B*5604	?	?												
B*560501	?	?												
B*560502	?	?												
B*5606	?	?												
B*5607	?	?												
B*5608	?	?												
B*5609	?	?												
B*5610	?	?												
B*5611														
B*5612	?	?												
B*570101														
B*570102	?	?												
B*5702														
B*570301														
B*570302	?	?												
B*5704	?	?												
B*5705	?	?												
B*5706														
B*5707	?	?												
B*5708	?	?												
Allele	B*48A	B*48C	B*261C ⁴	B*261G ⁵	B*277A	B*277G2	B*317T ⁷	B*355A ¹	B*355C ⁹	B*355T	B*539A ³	B*539T ⁸	B*559C ⁶	B*559G ²

Allele	B48A	B48C	B261C ⁴	B261G ⁵	B277A	B277G2	B317T ⁷	B355A ¹	B355C ⁹	B355T	B539A ³	B539T ⁸	B559C ⁶	B559G ²
B*5709	?	?												
B*5801														
B*5802														
B*5804														
B*5805	?	?												
B*5806	?	?												
B*5807	?	?												
B*5808	?	?												
B*5809	?	?												
B*5901														
B*670101														
B*670102	?	?												
B*6702														
B*7301														
B*7801														
B*780201														
B*780202	?	?												
B*7803	?	?												
B*7804	?	?												
B*7805	?	?												
B*8101														
B*8102														
B*8201	?	?												
B*8202														
B*8301														

?: Probe is located in portion of exon not yet sequenced.

 = weakly targeted

Foot Notes: *Due to the sharing of sequence motifs between Class I alleles, some non HLA-B, Class I alleles may be captured with these probes:*

¹ **For probe #B355A:** , Cw*030301, Cw*030302, Cw*030303, Cw*030304, Cw*030401, Cw*030402, Cw*030403, Cw*0306, Cw*0307, Cw*0308, Cw*0309, Cw*0310, Cw*0311, Cw*0312, Cw*0314, Cw*0710, Cw*150201, Cw*150202, Cw*1503, Cw*1504, Cw*150501, Cw*150502, Cw*150503, Cw*1506, Cw*1507, Cw*1508, Cw*1509, Cw*1510, Cw*1511, Cw*1512

² **For probe #B559G:** A*0216, A*6602, A*6603, A*8001
Cw*0110, Cw*020201, Cw*020202, Cw*020203, Cw*020204, Cw*020205, Cw*0203, Cw*0204, Cw*0205, Cw*0206, Cw*0207, Cw*0208, Cw*0209, Cw*0608, Cw*0715, Cw*1701, Cw*1702, Cw*1703
F*010101, F*010102

³ **For probe #B539A:** Cw*070401, Cw*070402, Cw*0711, Cw*0712

⁴ **For probe #B261C:** A*0255, A*1110, A*2424, A*250101, A*250102, A*2502, A*2503, A*2504, A*2601, A*2602, A*2603, A*2604, A*2605, A*2606, A*2608, A*2609, A*2610, A*2611N, A*2612, A*2613, A*2614, A*2615, A*2616, A*2617, A*2618, A*2620, A*3301, A*330301, A*330302, A*3304, A*3305, A*3306, A*3307, A*3401, A*3402, A*3403, A*3404, A*3405, A*6601, A*6602, A*6603, A*6604, A*680101, A*680102, A*680103, A*6802, A*680301, A*680302, A*6804, A*6805, A*6806, A*6807, A*6808, A*6809, A*6811N, A*6812, A*6815, A*6816, A*6817, A*6818N, A*6819, A*6820, A*6821, A*6822, A*6823, A*6824, A*6825, A*6901

⁵ **For probe #B261G:** A*010101, A*010102, A*0102, A*0103, A*0104N, A*0106, A*0107, A*0108, A*0109, A*020101, A*020102, A*020103, A*020104, A*020105, A*020106, A*020107, A*020108, A*020109, A*0202, A*0203, A*0204, A*0205, A*0206, A*0207, A*0208, A*0209, A*0210, A*0211, A*0212, A*0213, A*0214, A*0215N, A*0216, A*021701, A*021702, A*0218, A*0219, A*022001, A*022002, A*0221, A*0222, A*0224, A*0225, A*0226, A*0227, A*0228, A*0229, A*0230, A*0231, A*0232N, A*0233, A*0234, A*0235, A*0236, A*0237, A*0238, A*0239, A*0240, A*0241, A*0242, A*0243N, A*0244, A*0245, A*0247, A*0249, A*0250, A*0251, A*0252, A*0253N, A*0254, A*0256, A*0257, A*0258, A*0259, A*0260, A*0261, A*0262, A*0263, A*0264, A*03010101, A*03010102N, A*030102, A*030103, A*0302, A*0303N, A*0304, A*0305, A*0306, A*0307, A*0308, A*0309, A*0310, A*0311N, A*0312, A*110101, A*110102, A*1102, A*1103, A*1104, A*1105, A*1106, A*1107, A*1108, A*1109, A*1112, A*1113, A*1114, A*2309, A*2408, A*2607, A*3001, A*3002, A*3003, A*3004, A*3006, A*3008, A*3009, A*3010, A*3011, A*3012, A*310102, A*3102, A*3103, A*3104, A*3105, A*3106, A*3107, A*3109, A*3201, A*3202, A*3203, A*3204, A*3205, A*3206, A*3207, A*3601, A*3602, A*3603, A*3604, A*6813, A*7401, A*7402, A*7403, A*7404, A*7405, A*7406, A*7407, A*7408, A*7409
Cw*010201, Cw*010202, Cw*0103, Cw*0104, Cw*0105, Cw*0106, Cw*0107, Cw*0108, Cw*0109, Cw*0110, Cw*020201, Cw*020202, Cw*020203, Cw*020204, Cw*020205, Cw*0203, Cw*0204, Cw*0205, Cw*0206, Cw*0207, Cw*0208, Cw*0209, Cw*030201, Cw*030202, Cw*030301, Cw*030302, Cw*030303, Cw*030304, Cw*030401, Cw*030402, Cw*030403, Cw*0305, Cw*0306, Cw*0307, Cw*0308, Cw*0309, Cw*0310, Cw*0311, Cw*0312, Cw*0313, Cw*0314, Cw*0315, Cw*0316, Cw*04010101, Cw*04010102, Cw*040102, Cw*0403, Cw*040401, Cw*0405, Cw*0406, Cw*0407, Cw*0408, Cw*0409N,

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Cw*0410, Cw*0411, Cw*0412, Cw*0413, Cw*0414, Cw*0415, Cw*0501, Cw*0502, Cw*0503, Cw*0504, Cw*0505, Cw*0506, Cw*0507N, Cw*0508, Cw*0509, Cw*0602, Cw*0603, Cw*0604, Cw*0605, Cw*0606, Cw*0607, Cw*0608, Cw*0609, Cw*0610, Cw*070101, Cw*070102, Cw*070103, Cw*07020101, Cw*07020102, Cw*0703, Cw*070401, Cw*070402, Cw*0705, Cw*0706, Cw*0707, Cw*0708, Cw*0709, Cw*0710, Cw*0711, Cw*0712, Cw*0713, Cw*0714, Cw*0715, Cw*0716, Cw*0717, Cw*0718, Cw*0719, Cw*0720, Cw*0721, Cw*0722, Cw*0723, Cw*0724, Cw*0725, Cw*0726, Cw*080101, Cw*080102, Cw*0802, Cw*0803, Cw*0804, Cw*0805, Cw*0806, Cw*0807, Cw*0808, Cw*0809, Cw*0810, Cw*0811, Cw*0812, Cw*120201, Cw*120202, Cw*120203, Cw*120301, Cw*120302, Cw*120303, Cw*120401, Cw*120402, Cw*1205, Cw*1206, Cw*1207, Cw*1208, Cw*1209, Cw*1210, Cw*1211, Cw*1212, Cw*140201, Cw*140202, Cw*140203, Cw*1403, Cw*1404, Cw*1405, Cw*150201, Cw*150202, Cw*1503, Cw*1504, Cw*150501, Cw*150502, Cw*150503, Cw*1506, Cw*1507, Cw*1508, Cw*1509, Cw*1510, Cw*1511, Cw*1512, Cw*1601, Cw*1602, Cw*160401, Cw*1606, Cw*1701, Cw*1702, Cw*1703, Cw*1801, Cw*1802
E*0101, E*0102, E*010301, E*010302, E*010303

⁶For probe #B559C: A*2604

Cw*030201, Cw*030202, Cw*030301, Cw*030302, Cw*030303, Cw*030304, Cw*030401, Cw*030402, Cw*030403, Cw*0305, Cw*0306, Cw*0307, Cw*0308, Cw*0309, Cw*0310, Cw*0311, Cw*0312, Cw*0313, Cw*0315, Cw*0408, Cw*0502, Cw*0703

⁷For probe #B317T: A*010101-W, A*010102-W, A*0102-W, A*0103-W, A*0104N-W, A*0106-W, A*0107-W, A*0108-W, A*0109-W, A*0110-W, A*02010101-W, A*02010102L-W, A*020102-W, A*020103-W, A*020104-W, A*020105-W, A*020106-W, A*020107-W, A*020108-W, A*020109-W, A*0202-W, A*0203-W, A*0204-W, A*0205-W, A*0206-W, A*0207-W, A*0208-W, A*0209-W, A*0210-W, A*0211-W, A*0212-W, A*0213-W, A*0214-W, A*0215N-W, A*0216-W, A*021701-W, A*021702-W, A*0218-W, A*0219-W, A*022001-W, A*022002-W, A*0221-W, A*0222-W, A*0224-W, A*0225-W, A*0226-W, A*0227-W, A*0228-W, A*0229-W, A*0230-W, A*0231-W, A*0232N-W, A*0233-W, A*0234-W, A*0235-W, A*0236-W, A*0237-W, A*0238-W, A*0239-W, A*0240-W, A*0241-W, A*0242-W, A*0243N-W, A*0244-W, A*0245-W, A*0246-W, A*0247-W, A*0248-W, A*0249-W, A*0250-W, A*0251-W, A*0252-W, A*0253N-W, A*0254-W, A*0255-W, A*0256-W, A*0257-W, A*0258-W, A*0259-W, A*0260-W, A*0261-W, A*0262-W, A*0263-W, A*0264-W, A*0265-W, A*0266-W, A*0267-W, A*0268-W, A*03010101-W, A*03010102N-W, A*030102-W, A*030103-W, A*0302-W, A*0303N-W, A*0304-W, A*0305-W, A*0306-W, A*0307-W, A*0308-W, A*0309-W, A*0310-W, A*0311N-W, A*0312-W, A*0313-W, A*0314-W, A*110101-W, A*110102, A*1102-W, A*1103-W, A*1104-W, A*1105-W, A*1106-W, A*1107-W, A*1108-W, A*1109-W, A*1110-W, A*1111-W, A*1112-W, A*1113-W, A*1114-W, A*1115-W, A*1116-W, A*1117-W, A*2404-W, A*2419-W, A*2428-W, A*2601-W, A*2602-W, A*2603-W, A*2604-W, A*2605-W, A*2606-W, A*260701-W, A*260702-W, A*2608-W, A*2609-W, A*2610-W, A*2611N-W, A*2612-W, A*2613-W, A*2614-W, A*2615-W, A*2616-W, A*2617-W, A*2618-W, A*2619-W, A*2620-W, A*29010101-W, A*29010102N-W, A*290201-W, A*290202-W, A*290203-W, A*2903-W, A*2904-W, A*2905-W, A*2906-W, A*2907-W, A*2908N-W, A*2909-W, A*2910-W, A*2911-W, A*3001-W, A*3002-W, A*3003-W, A*3004-W, A*3006-W, A*3007-W, A*3008-W, A*3009-W, A*3010-W, A*3011-W, A*3012-W, A*310102-W, A*3102-W, A*3103-W, A*3104-W, A*3105-W, A*3106-W, A*3109-W, A*3301-W, A*330301-W, A*330302-W, A*3304-W, A*3305-W, A*3306-W, A*3307-W, A*3401-W, A*3402-W, A*3403-W, A*3404-W, A*3405-W, A*3601-W, A*3602-W, A*3603-W, A*3604-W, A*4301-W, A*6601-W, A*6602-W, A*6603-W, A*6604-W, A*680101-W, A*680102-W, A*680103-W, A*6802-W, A*680301-W, A*680302-W, A*6804-W, A*6805-W, A*6806-W, A*6807-W, A*6808-W,

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A*6809-W, A*6810-W, A*6811N-W, A*6812-W, A*6813-W, A*6814-W, A*6815-W, A*6816-W, A*6817-W, A*6818N-W, A*6819-W, A*6820-W, A*6821-W, A*6823-W, A*6824-W, A*6825-W, A*6901-W, A*7401-W, A*7402-W, A*7404-W, A*7405-W, A*7406-W, A*7407-W, A*7408-W, A*7409-W, A*7410-W, A*8001-W

Cw*010201, Cw*010202, Cw*0103, Cw*0104, Cw*0105, Cw*0106, Cw*0107, Cw*0108, Cw*0109, Cw*0110, Cw*020202, Cw*020203, Cw*020204, Cw*020205, Cw*0203, Cw*0204, Cw*0205, Cw*0206, Cw*0207, Cw*0208, Cw*0209, Cw*030201, Cw*030202, Cw*030301, Cw*030302, Cw*030303, Cw*030304, Cw*030401, Cw*030402, Cw*030403, Cw*0305, Cw*0306, Cw*0307, Cw*0308, Cw*0309, Cw*0310, Cw*0311, Cw*0312, Cw*0313, Cw*0314, Cw*0315, Cw*0316, Cw*04010101, Cw*04010102, Cw*040102, Cw*0403, Cw*040401, Cw*040402, Cw*0405, Cw*0406, Cw*0407, Cw*0408, Cw*0409N, Cw*0410, Cw*0411, Cw*0412, Cw*0413, Cw*0414, Cw*0415, Cw*0501, Cw*0502, Cw*0503, Cw*0504, Cw*0505, Cw*0506, Cw*0507N, Cw*0508, Cw*0509, Cw*0602, Cw*0603, Cw*0604, Cw*0605, Cw*0606, Cw*0607, Cw*0608, Cw*0609, Cw*0610, Cw*0611, Cw*070101, Cw*070102, Cw*070103, Cw*07020101, Cw*07020102, Cw*0703, Cw*070401, Cw*070402, Cw*0705, Cw*0706, Cw*0707, Cw*0708, Cw*0709, Cw*0710, Cw*0711, Cw*0712, Cw*0713, Cw*0714, Cw*0715, Cw*0716, Cw*0717, Cw*0718, Cw*0719, Cw*0720, Cw*0721, Cw*0722, Cw*0723, Cw*0724, Cw*0725, Cw*0726, Cw*080101, Cw*080102, Cw*0802, Cw*0803, Cw*0804, Cw*0805, Cw*0806, Cw*0807, Cw*0808, Cw*0809, Cw*0810, Cw*0811, Cw*0812, Cw*120201, Cw*120202, Cw*120203, Cw*120301, Cw*120302, Cw*120303, Cw*120401, Cw*120402, Cw*1205, Cw*1206, Cw*1207, Cw*1208, Cw*1209, Cw*1210, Cw*1211, Cw*140201, Cw*140202, Cw*140203, Cw*1403, Cw*1404, Cw*1405, Cw*150201, Cw*150202, Cw*1503, Cw*1504, Cw*150501, Cw*150502, Cw*150503, Cw*1506, Cw*1507, Cw*1508, Cw*1509, Cw*1510, Cw*1511, Cw*1512, Cw*1601, Cw*1602, Cw*160401, Cw*1606, Cw*1701, Cw*1702, Cw*1703, Cw*1801, Cw*1802

⁸For probe #B539T: A*030102, A*6808, A*8001-W

Cw*0203, Cw*030201, Cw*030202, Cw*030301, Cw*030302, Cw*030303, Cw*030304, Cw*030401, Cw*030402, Cw*030403, Cw*0305, Cw*0306, Cw*0307, Cw*0308, Cw*0309, Cw*0310, Cw*0311, Cw*0312, Cw*0313, Cw*0314, Cw*0315, Cw*0316, Cw*0404, Cw*040402, Cw*0406, Cw*0413, Cw*0604, Cw*070101, Cw*070102, Cw*070103, Cw*07020101, Cw*07020102, Cw*0703, Cw*0705, Cw*0706, Cw*0707, Cw*0708, Cw*0709, Cw*0710, Cw*0713, Cw*0714, Cw*0715, Cw*0716, Cw*0717, Cw*0718, Cw*0719, Cw*0720, Cw*0721, Cw*0723, Cw*0724, Cw*0725, Cw*0726, Cw*080101, Cw*080102, Cw*0803, Cw*0804, Cw*0806, Cw*0808, Cw*0809, Cw*0810, Cw*0811, Cw*150201, Cw*150202, Cw*1503, Cw*1504, Cw*150501, Cw*150502, Cw*150503, Cw*1506, Cw*1507, Cw*1509, Cw*1510, Cw*1511, Cw*1512, Cw*1701, Cw*1702, Cw*1703

⁹For probe #B355C: A*010101, A*010102, A*0102, A*0103, A*0104N, A*0106, A*0107, A*0108, A*0109, A*0110, A*0202, A*0205, A*0208, A*0214, A*021701, A*021702, A*0247, A*0250, A*0257, A*0258, A*0263, A*0265, A*03010101, A*03010102N, A*030102, A*030103, A*0302, A*0303N, A*0304, A*0305, A*0306, A*0307, A*0308, A*0309, A*0310, A*0311N, A*0312, A*0313, A*0314, A*110101, A*110102, A*1102, A*1103, A*1104, A*1105, A*1106, A*1107, A*1108, A*1109, A*1110, A*1111, A*1112, A*1113, A*1114, A*1115, A*1116, A*1117, A*2301, A*2302, A*2303, A*2304, A*2305, A*2306, A*2307N, A*2308N, A*2309, A*2310, A*2311N, A*2312, A*24020101, A*24020102L, A*240202, A*240203, A*240204, A*240205, A*240301, A*240302, A*2404, A*2405, A*2406, A*2407, A*2408, A*2409N, A*2410, A*2411N, A*2413, A*2415, A*2417, A*2418, A*2419, A*2420, A*2421, A*2422, A*2423, A*2424, A*2425, A*2426, A*2427, A*2428, A*2429, A*2430,

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A*2431, A*2432, A*2433, A*2434, A*2435, A*2436N, A*2437, A*2438, A*2439, A*2440N, A*2441, A*2442, A*250101, A*250102, A*2502, A*2503, A*2504, A*2601, A*2602, A*2603, A*2604, A*2605, A*2606, A*260701, A*260702, A*2608, A*2609, A*2610, A*2611N, A*2612, A*2613, A*2614, A*2615, A*2616, A*2618, A*2619, A*2620, A*29010101, A*29010102N, A*290201, A*290202, A*290203, A*2903, A*2904, A*2905, A*2906, A*2907, A*2908N, A*2909, A*2910, A*2911, A*3001, A*3002, A*3003, A*3004, A*3006, A*3007, A*3008, A*3009, A*3010, A*3011, A*3012, A*310102, A*3102, A*3103, A*3104, A*3105, A*3106, A*3107, A*3108, A*3109, A*3201, A*3202, A*3203, A*3204, A*3205, A*3206, A*3207, A*3301, A*330301, A*330302, A*3304, A*3305, A*3306, A*3307, A*3401, A*3402, A*3403, A*3404, A*3405, A*3601, A*3602, A*3603, A*3604, A*4301, A*6601, A*6602, A*6603, A*6604, A*680101, A*680102, A*680103, A*6802, A*680301, A*680302, A*6804, A*6805, A*6806, A*6807, A*6808, A*6809, A*6810, A*6811N, A*6812, A*6813, A*6814, A*6815, A*6816, A*6817, A*6818N, A*6819, A*6820, A*6821, A*6822, A*6823, A*6824, A*6825, A*7401, A*7402, A*7403, A*7404, A*7405, A*7406, A*7407, A*7408, A*7409, A*7410, A*8001

Cw*010201, Cw*0103, Cw*0104, Cw*0105, Cw*0106, Cw*0107, Cw*0108, Cw*0109, Cw*0110, Cw*020201, Cw*020202, Cw*020203, Cw*020204, Cw*020205, Cw*0203, Cw*0204, Cw*0205, Cw*0206, Cw*0207, Cw*0208, Cw*0209, Cw*0305, Cw*0313, Cw*04010101, Cw*04010102, Cw*040102, Cw*0403, Cw*040401, Cw*040402, Cw*0405, Cw*0406, Cw*0407, Cw*0408, Cw*0409N, Cw*0410, Cw*0411, Cw*0412, Cw*0413, Cw*0414, Cw*0415, Cw*0501, Cw*0502, Cw*0503, Cw*0504, Cw*0505, Cw*0506, Cw*0508, Cw*0509, Cw*0602, Cw*0603, Cw*0604, Cw*0605, Cw*0606, Cw*0607, Cw*0608, Cw*0609, Cw*0610, Cw*0611, Cw*070101, Cw*070102, Cw*070103, Cw*07020101, Cw*07020102, Cw*0703, Cw*0705, Cw*0706, Cw*0707, Cw*0708, Cw*0709, Cw*0713, Cw*0714, Cw*0715, Cw*0716, Cw*0717, Cw*0718, Cw*0719, Cw*0720, Cw*0721, Cw*0722, Cw*0723, Cw*0724, Cw*0725, Cw*0726, Cw*080101, Cw*080102, Cw*0802, Cw*0803, Cw*0804, Cw*0805, Cw*0806, Cw*0807, Cw*0808, Cw*0809, Cw*0810, Cw*0811, Cw*0812, Cw*120201, Cw*120202, Cw*120203, Cw*120301, Cw*120302, Cw*120303, Cw*120401, Cw*120402, Cw*1205, Cw*1206, Cw*1207, Cw*1208, Cw*1209, Cw*1210, Cw*1211, Cw*1212, Cw*140201, Cw*140202, Cw*140203, Cw*1403, Cw*1404, Cw*1405, Cw*1601, Cw*1602, Cw*160401, Cw*1606, Cw*1701, Cw*1702, Cw*1703, Cw*1801, Cw*1802

F*010101, F*010102

G*010101-W, G*010103-W, G*010104-W, G*010105-W, G*010106-W, G*010108-W, G*0102-W, G*0103-W, G*010401-W, G*010402-W, G*010403-W

- W = weakly targeted

HLA-B Probe B48A

Product Name	Size	Product Number
HaploPrep HLA-B B48A	25 Separations	H112.PB48A

Probe target sequence (unique sequence element, center nucleotide position & exon):

USE	center nt pos	exon
GGGGGGCAG	45	1

HLA-B Alleles Targeted:

B*1301, B*1302, B*1303, B*1304, B*1308, B*1313, B*180101, B*1802, B*1803, B*1806, B*1817N-W, B*2702, B*2703, B*2704, B*270502, B*270504, B*270505, B*2706, B*2708, B*2709, B*2711, B*2712, B*2713, B*2714, B*2718, B*350101, B*3502, B*3503, B*3504, B*3505, B*3506, B*3507, B*3508, B*350901, B*3511, B*3512, B*351402, B*3515, B*3528, B*3531, B*3540N, B*3542, B*3543, B*3546, B*3701, B*3702, B*3704, B*3705, B*4002, B*4003, B*4004, B*4005, B*40060101, B*40060102, B*4008, B*4013, B*4020, B*44020101, B*44020102S, B*440301, B*440302, B*4404, B*4405, B*4406, B*4407, B*4408, B*4409, B*4413, B*4419N, B*4423N, B*4431, B*47010101, B*47010102, B*4702, B*510101, B*510102, B*510105, B*510201, B*510202, B*5103, B*5104, B*5108, B*520101, B*520102, B*5204, B*5301, B*570101, B*5702, B*570301, B*5706, B*5801, B*5802, B*5804, B*7801, B*780201, B*8101, B*8301

No sequence information for the following alleles in the position of HSE probe, their ability to capture the alleles is unknown:

B*070203, B*070204, B*0708, B*0710, B*0711, B*0712, B*0713, B*0714, B*0715, B*0716, B*0717, B*0719, B*0720, B*0721, B*0722, B*0723, B*0724, B*0725, B*0726, B*0727, B*0728, B*0729, B*0730, B*0731, B*0732, B*0734, B*0735, B*0736, B*0737, B*0738, B*0803, B*0804, B*0805, B*0806, B*0807, B*0809, B*0810, B*0811, B*0812, B*0813, B*0814, B*0815, B*0816, B*0817, B*0818, B*0821, B*1306, B*1307N, B*1309, B*1310, B*1311, B*1312, B*1403, B*1404, B*140601, B*140602, B*150102, B*150103, B*150104, B*1505, B*1506, B*1507, B*151102, B*1527, B*1530, B*1531, B*1532, B*1533, B*1534, B*1535, B*1536, B*1537, B*1538, B*1539, B*1540, B*1543, B*1544, B*1545, B*1547, B*1548, B*1549, B*1550, B*1551, B*1556, B*1560, B*1561, B*1562, B*1563, B*1564, B*1565, B*1567, B*1568, B*1569, B*1570, B*1571, B*1572, B*1573, B*1574, B*1575, B*1576, B*1578, B*1579N, B*1580, B*1581, B*1582, B*180102, B*1804, B*1805, B*1807, B*1808, B*1809, B*1810, B*1811, B*1812, B*1813, B*1814, B*1815, B*1818, B*1819, B*2701, B*270503, B*270506, B*2707, B*2710, B*2715, B*2716, B*2717, B*2719, B*2720, B*2721, B*2723, B*2724, B*2725, B*350102, B*350902, B*3510, B*3513, B*351401, B*3516, B*3517, B*3518, B*3519, B*3520, B*3521, B*3522, B*3523, B*3524, B*3525, B*3526, B*3527, B*3529, B*3530, B*3532, B*3533, B*3534, B*3535, B*3536, B*3537, B*3538, B*3539, B*3541, B*3544, B*3545, B*3547, B*3548, B*3549, B*3703N, B*3707, B*380202, B*3803, B*3804, B*3805, B*3806, B*3807, B*3808, B*3809, B*390104, B*3907, B*3911, B*3912, B*3913, B*3914, B*3915, B*3916, B*3918, B*3919, B*3920, B*3922, B*3923, B*3525N, B*3926, B*3927, B*3928, B*400103, B*400104, B*4009, B*4010, B*4011, B*401401, B*401402, B*401403, B*4015, B*4018, B*4019, B*4021, B*4022N, B*4024, B*4025, B*4026, B*4027, B*4028, B*4029, B*4030, B*4031, B*4032, B*4033, B*4034, B*4035, B*4036, B*4037, B*4038, B*4039, B*4040, B*4042, B*4043, B*4044, B*4045, B*4046, B*4047, B*4048, B*4103, B*4104, B*4105, B*4106, B*4202, B*4204, B*4205, B*440202, B*440203, B*4410, B*4411, B*4412, B*4414, B*4415, B*4416, B*4417,

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B*4420, B*4421, B*4422, B*4424, B*4425, B*4426, B*4427, B*4428, B*4429, B*4430, B*4432, B*4433, B*4434, B*4435, B*4436, B*4437, B*4438, B*4439, B*4502, B*4503, B*4505, B*4506, B*4602, B*4703, B*4704, B*4803, B*4804, B*4806, B*4807, B*4902, B*4903, B*5004, B*510103, B*510104, B*5105, B*5106, B*5107, B*5109, B*5110, B*5111N, B*5112, B*511301, B*511302, B*5114, B*5115, B*5116, B*5117, B*5118, B*5119, B*5120, B*5121, B*5122, B*5123, B*5124, B*5126, B*5127N, B*5128, B*5129, B*5130, B*5131, B*5132, B*5133, B*5134, B*520103, B*520104, B*5202, B*5203, B*5205, B*5302, B*5303, B*5304, B*5305, B*5306, B*5307, B*5308, B*5309, B*5402, B*5503, B*5504, B*5507, B*5508, B*5509, B*5510, B*5511, B*5513, B*5514, B*5515, B*5604, B*560501, B*560502, B*5606, B*5607, B*5608, B*5609, B*5610, B*5612, B*570102, B*570302, B*5704, B*5705, B*5707, B*5708, B*5709, B*5805, B*5806, B*5807, B*5808, B*5809, B*670102, B*780202, B*7803, B*7804, B*7805, B*8201

- **W** = weakly targeted

HLA-B Probe B48C

Product Name	Size	Product Number
HaploPrep HLA-B B48C	25 Separations	H112.PB48C

Probe target sequence (unique sequence element, center nucleotide position & exon):

USE	center nt pos	exon
CGGCGGCC	45	1

HLA-B Alleles Targeted:

B*070201, B*070202, B*0703, B*0704, B*0705, B*0706, B*0707, B*0709, B*0718, B*0733, B*0801, B*0802, B*0808N, B*0819N, B*0820, B*1401, B*1402, B*1405, B*3801, B*380201, B*390101, B*390103, B*390201, B*390202, B*3903, B*3904, B*3905, B*390601, B*390602, B*3908, B*3909, B*3910, B*3917, B*3924, B*400101, B*400102, B*4007, B*4016, B*4023, B*4101, B*4102, B*4201, B*4418, B*4501, B*4504, B*4801, B*4802, B*4805, B*4808, B*4901, B*5001, B*5002, B*670101, B*6702, B*7301, B*8102

Non HLA-B Alleles captured:

E*0102, E*010301, E*010303

No sequence information is available for the following alleles in the position of this HSE probe, their ability to capture the alleles is unknown:

B*070203, B*070204, B*0708, B*0710, B*0711, B*0712, B*0713, B*0714, B*0715, B*0716, B*0717, B*0719, B*0720, B*0721, B*0722, B*0723, B*0724, B*0725, B*0726, B*0727, B*0728, B*0729, B*0730, B*0731, B*0732, B*0734, B*0735, B*0736, B*0737, B*0738, B*0803, B*0804, B*0805, B*0806, B*0807, B*0809, B*0810, B*0811, B*0812, B*0813, B*0814, B*0815, B*0816, B*0817, B*0818, B*0821, B*1306, B*1307N, B*1309, B*1310, B*1311, B*1312, B*1403, B*1404, B*140601, B*140602, B*150102, B*150103, B*150104, B*1505, B*1506, B*1507, B*151102, B*1527, B*1530, B*1531, B*1532, B*1533, B*1534, B*1535, B*1536, B*1537, B*1538, B*1539, B*1540, B*1543, B*1544, B*1545, B*1547, B*1548, B*1549, B*1550, B*1551, B*1556, B*1560, B*1561, B*1562, B*1563, B*1564, B*1565, B*1567, B*1568, B*1569, B*1570, B*1571, B*1572, B*1573, B*1574, B*1575, B*1576, B*1578, B*1579N, B*1580, B*1581, B*1582, B*180102, B*1804, B*1805, B*1807, B*1808, B*1809, B*1810, B*1811, B*1812, B*1813, B*1814, B*1815, B*1818, B*1819, B*2701, B*270503, B*270506, B*2707, B*2710, B*2715, B*2716, B*2717, B*2719, B*2720, B*2721, B*2723, B*2724, B*2725, B*350102, B*350902, B*3510, B*3513, B*351401, B*3516, B*3517, B*3518, B*3519, B*3520, B*3521, B*3522, B*3523, B*3524, B*3525, B*3526, B*3527, B*3529, B*3530, B*3532, B*3533, B*3534, B*3535, B*3536, B*3537, B*3538, B*3539, B*3544, B*3545, B*3547, B*3548, B*3549, B*3703N, B*3707, B*380202, B*3803, B*3804, B*3805, B*3806, B*3807, B*3808, B*3809, B*390104, B*3907, B*3911, B*3912, B*3913, B*3914, B*3915, B*3916, B*3918, B*3919, B*3920, B*3922, B*3923, B*3925N, B*3926, B*3927, B*3928, B*400103, B*400104, B*4009, B*4010, B*4011, B*401401, B*401402, B*401403, B*4015, B*4018, B*4019, B*4021, B*4022N, B*4024, B*4025, B*4026, B*4027, B*4028, B*4029, B*4030, B*4031, B*4032, B*4033, B*4034, B*4035, B*4036, B*4037, B*4038, B*4040, B*4042, B*4043, B*4044, B*4045, B*4046, B*4047, B*4048, B*4103, B*4104, B*4105, B*4106, B*4202, B*4204, B*4205, B*440202, B*440203, B*4410, B*4411, B*4412, B*4414, B*4415, B*4416, B*4417, B*4420, B*4421,

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B*4422, B*4424, B*4425, B*4426, B*4427, B*4428, B*4429, B*4430, B*4432, B*4433, B*4434, B*4435, B*4436, B*4437, B*4438, B*4439, B*4502, B*4503, B*4505, B*4506, B*4602, B*4703, B*4704, B*4803, B*4804, B*4806, B*4807, B*4902, B*4903, B*5004, B*510103, B*510104, B*5105, B*5106, B*5107, B*5109, B*5110, B*5111N, B*5112, B*511301, B*511302, B*5114, B*5115, B*5116, B*5117, B*5118, B*5119, B*5120, B*5121, B*5122, B*5123, B*5124, B*5126, B*5127N, B*5128, B*5129, B*5130, B*5131, B*5132, B*5133, B*5134, B*520103, B*520104, B*5202, B*5203, B*5205, B*5302, B*5303, B*5304, B*5305, B*5306, B*5307, B*5308, B*5309, B*5402, B*5503, B*5504, B*5507, B*5508, B*5509, B*5510, B*5511, B*5513, B*5514, B*5515, B*5604, B*560501, B*560502, B*5606, B*5607, B*5608, B*5609, B*5610, B*5612, B*570102, B*570302, B*5704, B*5705, B*5707, B*5708, B*5709, B*5805, B*5806, B*5807, B*5808, B*5809, B*670102, B*780202, B*7803, B*7804, B*7805, B*8201

- W = weakly targeted

HLA-B Probe B261C

Product Name	Size	Product Number
HaploPrep HLA-B B261C	25 Separations	H112.PB261C

Probe target sequence (unique sequence element, center nucleotide position & exon):

USE	center nt pos	exon
GAACA	260	2

HLA-B Alleles Targeted:

B*070201, B*070202, B*070203, B*070204, B*0703, B*0704, B*0705, B*0706, B*0707, B*0708, B*0709, B*0710, B*0711, B*0712, B*0714, B*0715, B*0716, B*0717, B*0718, B*0719, B*0720, B*0721, B*0722, B*0723, B*0724, B*0725, B*0726, B*0727, B*0728, B*0729, B*0730, B*0731, B*0732, B*0733, B*0734, B*0735, B*0736, B*0737, B*0738, B*0801, B*0802, B*0803, B*0804, B*0805, B*0806, B*0807, B*0808N, B*0809, B*0811, B*0812, B*0813, B*0814, B*0815, B*0816, B*0818, B*0819N, B*0820, B*0821, B*1401, B*1402, B*1403, B*1404, B*1405, B*140601, B*140602, B*1502, B*1508, B*1509, B*1510, B*151101, B*151102, B*1513, B*1515, B*1518, B*1521, B*1523, B*1529, B*1531, B*1537, B*1544, B*1551, B*1552, B*1555, B*1564, B*1572, B*1576, B*1580, B*180101, B*180102, B*1802, B*1803, B*1804, B*1805, B*1806, B*1807, B*1808, B*1809, B*1810, B*1811, B*1813, B*1814, B*1815, B*1817N, B*1818, B*1819, B*2723, B*350101, B*350102, B*3502, B*3503, B*3504, B*3505, B*3506, B*3507, B*3508, B*350901, B*350902, B*3511, B*3512, B*351401, B*351402, B*3515, B*3517, B*3518, B*3519, B*3520, B*3521, B*3522, B*3523, B*3524, B*3525, B*3526, B*3527, B*3529, B*3530, B*3531, B*3532, B*3533, B*3534, B*3535, B*3536, B*3537, B*3538, B*3539, B*3540N, B*3541, B*3542, B*3543, B*3544, B*3545, B*3546, B*3547, B*3548, B*3549, B*3801, B*380201, B*380202, B*3805, B*3806, B*3807, B*3808, B*3809, B*390101, B*390103, B*390104, B*3903, B*3904, B*3905, B*390601, B*390602, B*3907, B*3909, B*3910, B*3911, B*3912, B*3914, B*3915, B*3916, B*3917, B*3918, B*3919, B*3920, B*3924, B*3925N, B*3926, B*3927, B*3928, B*4008, B*4025, B*4201, B*4202, B*4204, B*4205, B*4406, B*4412, B*4806, B*510101, B*510102, B*510103, B*510104, B*510105, B*510201, B*510202, B*5103, B*5104, B*5105, B*5106, B*5107, B*5108, B*5109, B*5110, B*5111N, B*5112, B*511301, B*511302, B*5114, B*5115, B*5116, B*5117, B*5118, B*5119, B*5120, B*5121, B*5122, B*5123, B*5124, B*5126, B*5127N, B*5128, B*5129, B*5130, B*5131, B*5132, B*5133, B*5134, B*5301, B*5302, B*5303, B*5304, B*5305, B*5306, B*5307, B*5308, B*5309, B*5401, B*5402, B*5501, B*5502, B*5503, B*5504, B*5505, B*5507, B*5508, B*5509, B*5510, B*5511, B*5512, B*5513, B*5514, B*5515, B*5516, B*5601, B*5602, B*5603, B*5604, B*560501, B*560502, B*5606, B*5607, B*5609, B*5610, B*5611, B*5612, B*5901, B*670101, B*670102, B*7301, B*7801, B*780201, B*780202, B*7803, B*7804, B*8101, B*8102, B*8201, B*8202, B*8301

Non HLA-B Alleles captured:

A*0255, A*1110, A*2424, A*250101, A*250102, A*2502, A*2503, A*2504, A*2601, A*2602, A*2603, A*2604, A*2605, A*2606, A*2608, A*2609, A*2610, A*2611N, A*2612, A*2613, A*2614, A*2615, A*2616, A*2617, A*2618, A*2620, A*3301, A*330301, A*330302, A*3304, A*3305, A*3306, A*3307, A*3401, A*3402, A*3403, A*3404, A*3405, A*6601, A*6602, A*6603, A*6604, A*680101, A*680102, A*680103, A*6802, A*680301, A*680302, A*6804, A*6805, A*6806, A*6807, A*6808, A*6809, A*6811N, A*6812, A*6815, A*6816, A*6817, A*6818N, A*6819, A*6820, A*6821, A*6822, A*6823, A*6824, A*6825, A*6901

- **W** = weakly targeted

HLA-B Probe B261G

Product Name	Size	Product Number
HaploPrep HLA-B B261G	25 Separations	H112.PB261G

Probe target sequence (unique sequence element, center nucleotide position & exon):

USE	center nt pos	exon
GGAGA	260	2

HLA-B Alleles Targeted:

B*0713, B*0817, B*1301, B*1302, B*1303, B*1304, B*1306, B*1308, B*1309, B*1310, B*1311, B*1312, B*1313, B*15010101, B*15010102N, B*150102, B*150103, B*150104, B*1503, B*1504, B*1505, B*1506, B*1507, B*1512, B*1514, B*1516, B*15170101, B*15170102, B*1519, B*1520, B*1524, B*1525, B*1526N, B*1527, B*1528, B*1530, B*1532, B*1533, B*1534, B*1535, B*1536, B*1538, B*1539, B*1540, B*1542, B*1543, B*1545, B*1546, B*1547, B*1548, B*1549, B*1550, B*1553, B*1554, B*1556, B*1557, B*1558, B*1560, B*1561, B*1562, B*1563, B*1565, B*1566, B*1567, B*1568, B*1569, B*1570, B*1571, B*1573, B*1574, B*1575, B*1577, B*1578, B*1579N, B*1581, B*1582, B*1583, B*1812, B*2701, B*2702, B*2703, B*2704, B*270502, B*270503, B*270504, B*270505, B*270506, B*2706, B*2707, B*2708, B*2709, B*2710, B*2711, B*2712, B*2713, B*2714, B*2715, B*2716, B*2717, B*2718, B*2719, B*2720, B*2721, B*2724, B*2725, B*3510, B*3513, B*3516, B*3528, B*3701, B*3702, B*3703N, B*3704, B*3705, B*3707, B*3803, B*3804, B*390201, B*390202, B*3908, B*3913, B*3922, B*3923, B*400101, B*400102, B*400103, B*400104, B*4002, B*4003, B*4004, B*4005, B*40060101, B*40060102, B*4007, B*4009, B*4010, B*4011, B*4012, B*4013, B*401401, B*401402, B*401403, B*4015, B*4016, B*4018, B*4019, B*4020, B*4021, B*4022N, B*4023, B*4024, B*4026, B*4027, B*4028, B*4029, B*4030, B*4031, B*4032, B*4033, B*4034, B*4035, B*4036, B*4037, B*4038, B*4039, B*4040, B*4042, B*4043, B*4044, B*4045, B*4046, B*4047, B*4048, B*4101, B*4102, B*4103, B*4104, B*4105, B*4106, B*44020101, B*44020102S, B*440202, B*440203, B*440301, B*440302, B*4404, B*4405, B*4407, B*4408, B*4409, B*4410, B*4411, B*4413, B*4414, B*4415, B*4416, B*4417, B*4418, B*4419N, B*4420, B*4421, B*4422, B*4423N, B*4424, B*4425, B*4426, B*4427, B*4428, B*4429, B*4430, B*4431, B*4432, B*4433, B*4434, B*4435, B*4436, B*4437, B*4438, B*4439, B*4501, B*4502, B*4503, B*4504, B*4505, B*4506, B*4601, B*4602, B*47010101, B*47010102, B*4702, B*4703, B*4704, B*4801, B*4802, B*4803, B*4804, B*4805, B*4807, B*4808, B*4901, B*4902, B*4903, B*5001, B*5002, B*5004, B*520101, B*520102, B*520103, B*520104, B*5202, B*5203, B*5204, B*5205, B*5608, B*570101, B*570102, B*5702, B*570301, B*570302, B*5704, B*5705, B*5706, B*5707, B*5708, B*5709, B*5801, B*5802, B*5804-W, B*5805, B*5806, B*5807, B*5808, B*5809, B*6702, B*7805

Non HLA-B Alleles captured:

A*010101, A*010102, A*0102, A*0103, A*0104N, A*0106, A*0107, A*0108, A*0109, A*020101, A*020102, A*020103, A*020104, A*020105, A*020106, A*020107, A*020108, A*020109, A*0202, A*0203, A*0204, A*0205, A*0206, A*0207, A*0208, A*0209, A*0210, A*0211, A*0212, A*0213, A*0214, A*0215N, A*0216, A*021701, A*021702, A*0218, A*0219, A*022001, A*022002, A*0221, A*0222, A*0224, A*0225, A*0226, A*0227, A*0228, A*0229, A*0230, A*0231, A*0232N, A*0233, A*0234, A*0235, A*0236, A*0237, A*0238, A*0239, A*0240, A*0241, A*0242, A*0243N, A*0244, A*0245, A*0247, A*0249, A*0250, A*0251, A*0252, A*0253N, A*0254, A*0256, A*0257, A*0258, A*0259, A*0260, A*0261,

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A*0262, A*0263, A*0264, A*03010101, A*03010102N, A*030102, A*030103, A*0302, A*0303N, A*0304, A*0305, A*0306, A*0307, A*0308, A*0309, A*0310, A*0311N, A*0312, A*110101, A*110102, A*1102, A*1103, A*1104, A*1105, A*1106, A*1107, A*1108, A*1109, A*1112, A*1113, A*1114, A*2309, A*2408, A*2607, A*3001, A*3002, A*3003, A*3004, A*3006, A*3008, A*3009, A*3010, A*3011, A*3012, A*310102, A*3102, A*3103, A*3104, A*3105, A*3106, A*3107, A*3109, A*3201, A*3202, A*3203, A*3204, A*3205, A*3206, A*3207, A*3601, A*3602, A*3603, A*3604, A*6813, A*7401, A*7402, A*7403, A*7404, A*7405, A*7406, A*7407, A*7408, A*7409
Cw*010201, Cw*010202, Cw*0103, Cw*0104, Cw*0105, Cw*0106, Cw*0107, Cw*0108, Cw*0109, Cw*0110, Cw*020201, Cw*020202, Cw*020203, Cw*020204, Cw*020205, Cw*0203, Cw*0204, Cw*0205, Cw*0206, Cw*0207, Cw*0208, Cw*0209, Cw*030201, Cw*030202, Cw*030301, Cw*030302, Cw*030303, Cw*030304, Cw*030401, Cw*030402, Cw*030403, Cw*0305, Cw*0306, Cw*0307, Cw*0308, Cw*0309, Cw*0310, Cw*0311, Cw*0312, Cw*0313, Cw*0314, Cw*0315, Cw*0316, Cw*04010101, Cw*04010102, Cw*040102, Cw*0403, Cw*040401, Cw*0405, Cw*0406, Cw*0407, Cw*0408, Cw*0409N, Cw*0410, Cw*0411, Cw*0412, Cw*0413, Cw*0414, Cw*0415, Cw*0501, Cw*0502, Cw*0503, Cw*0504, Cw*0505, Cw*0506, Cw*0507N, Cw*0508, Cw*0509, Cw*0602, Cw*0603, Cw*0604, Cw*0605, Cw*0606, Cw*0607, Cw*0608, Cw*0609, Cw*0610, Cw*070101, Cw*070102, Cw*070103, Cw*07020101, Cw*07020102, Cw*0703, Cw*070401, Cw*070402, Cw*0705, Cw*0706, Cw*0707, Cw*0708, Cw*0709, Cw*0710, Cw*0711, Cw*0712, Cw*0713, Cw*0714, Cw*0715, Cw*0716, Cw*0717, Cw*0718, Cw*0719, Cw*0720, Cw*0721, Cw*0722, Cw*0723, Cw*0724, Cw*0725, Cw*0726, Cw*080101, Cw*080102, Cw*0802, Cw*0803, Cw*0804, Cw*0805, Cw*0806, Cw*0807, Cw*0808, Cw*0809, Cw*0810, Cw*0811, Cw*0812, Cw*120201, Cw*120202, Cw*120203, Cw*120301, Cw*120302, Cw*120303, Cw*120401, Cw*120402, Cw*1205, Cw*1206, Cw*1207, Cw*1208, Cw*1209, Cw*1210, Cw*1211, Cw*1212, Cw*140201, Cw*140202, Cw*140203, Cw*1403, Cw*1404, Cw*1405, Cw*150201, Cw*150202, Cw*1503, Cw*1504, Cw*150501, Cw*150502, Cw*150503, Cw*1506, Cw*1507, Cw*1508, Cw*1509, Cw*1510, Cw*1511, Cw*1512, Cw*1601, Cw*1602, Cw*160401, Cw*1606, Cw*1701, Cw*1702, Cw*1703, Cw*1801, Cw*1802
E*0101, E*0102, E*010301, E*010302, E*010303

No sequence information is available for the following alleles in the position of this HSE probe, their ability to capture the alleles is unknown:
E*0104

- W = weakly targeted

HLA-B Probe B277A

Product Name	Size	Product Number
HaploPrep HLA-B B277A	25 Separations	H112.PB277A

Probe target sequence (unique sequence element, center nucleotide position & exon):

USE	center nt pos	exon
CCAAGACCAACA	277	2

HLA-B Alleles Targeted:

B*0703, B*0708, B*0716, B*0727, B*0732, B*0737-W, B*0738, B*0801, B*0802, B*0803, B*0804, B*0805-W, B*0806, B*0807, B*0808N, B*0809, B*0810, B*0811, B*0812, B*0813, B*0814, B*0815, B*0816, B*0817, B*0818, B*0819N, B*0820, B*0821, B*1301, B*1302, B*1303, B*1304, B*1306, B*1307N, B*1308, B*1309, B*1310, B*1311, B*1312, B*1313, B*1401, B*1402, B*1403, B*1404, B*1405, B*140601, B*140602, B*15010101, B*15010102N, B*150102, B*150103, B*150104, B*1502, B*1503, B*1504, B*1505, B*1506, B*1507, B*1508, B*1509, B*1510, B*151101, B*151102, B*1512, B*1513, B*1514, B*1515, B*1518, B*1519, B*1520, B*1521, B*1523, B*1524, B*1525, B*1526N, B*1527, B*1528, B*1529, B*1530, B*1531, B*1532, B*1533, B*1534, B*1535, B*1536, B*1537, B*1538, B*1539, B*1540, B*1542, B*1543, B*1544, B*1545, B*1546, B*1547, B*1548, B*1549, B*1550, B*1551, B*1552, B*1553, B*1554, B*1555, B*1556, B*1557, B*1558, B*1560, B*1561, B*1562, B*1563, B*1564, B*1565, B*1566, B*1568, B*1569, B*1570, B*1571, B*1572, B*1573, B*1574-W, B*1575, B*1577, B*1578, B*1579N, B*1580, B*1581, B*1582, B*1583, B*180101, B*180102, B*1802, B*1803, B*1804, B*1805, B*1806, B*1807, B*1808, B*1809, B*1810, B*1811, B*1812, B*1813, B*1814, B*1815, B*1817N, B*1818, B*1819, B*2712, B*2716, B*2718, B*2723, B*350101, B*350102, B*3502, B*3503, B*3504, B*3505, B*3506, B*3507, B*3508, B*350901, B*350902, B*3510, B*3511, B*3512, B*3513, B*351401, B*351402, B*3515, B*3516, B*3517, B*3518, B*3519, B*3520, B*3521, B*3522, B*3523, B*3524, B*3525, B*3526, B*3527, B*3528, B*3529, B*3530, B*3531, B*3532, B*3533, B*3534, B*3535, B*3536, B*3537, B*3538, B*3539, B*3540N, B*3541, B*3542, B*3543, B*3544, B*3545, B*3546, B*3547, B*3548, B*3549, B*3701, B*3702, B*3703N, B*3704, B*3705, B*3801, B*380201, B*380202, B*3803, B*3804, B*3805, B*3806, B*3807, B*3808, B*3809, B*390101, B*390103, B*390104, B*390201, B*390202, B*3903, B*3904, B*3905, B*390601, B*390602, B*3907, B*3908, B*3909, B*3910, B*3911, B*3912, B*3913, B*3914, B*3915, B*3916, B*3917, B*3918, B*3919, B*3920, B*3922, B*3923, B*3924, B*3925N, B*3926, B*3927, B*3928, B*400101, B*400102, B*400103, B*400104, B*4002, B*4003, B*4004, B*4005, B*40060101, B*40060102, B*4007, B*4008, B*4009, B*4010, B*4011, B*4012, B*4013, B*401401, B*401402, B*401403, B*4015, B*4016, B*4018, B*4019, B*4020, B*4021, B*4022N, B*4023, B*4024, B*4025, B*4026, B*4027, B*4028, B*4029, B*4030, B*4031, B*4032, B*4033, B*4034, B*4035, B*4036, B*4037, B*4038, B*4039, B*4040, B*4042, B*4043, B*4044, B*4045, B*4046, B*4047, B*4048, B*4101, B*4102, B*4103, B*4104, B*4105, B*4106, B*44020101, B*44020102S, B*440202, B*440203, B*440301, B*440302, B*4404, B*4405, B*4406, B*4407, B*4408, B*4409, B*4410, B*4411, B*4412, B*4413, B*4414, B*4415, B*4416, B*4417, B*4418, B*4419N, B*4420, B*4421, B*4422, B*4423N, B*4424, B*4425, B*4426, B*4427, B*4428, B*4429, B*4430, B*4431, B*4432, B*4433, B*4434, B*4435, B*4436, B*4437, B*4438, B*4439, B*4501, B*4502, B*4503, B*4504, B*4505, B*47010101, B*47010102, B*4702, B*4703, B*4704, B*4801, B*4802, B*4803, B*4804, B*4805, B*4806, B*4807, B*4808, B*4901, B*4902, B*4903, B*5001, B*5002, B*5004, B*510101, B*510102, B*510103, B*510104, B*510105, B*510201, B*510202, B*5103, B*5104, B*5105, B*5106, B*5107, B*5108,

For Research Use Only

B*5109, B*5110, B*5111N, B*5112, B*511301, B*511302, B*5114, B*5115, B*5116, B*5117, B*5118, B*5119, B*5120, B*5121, B*5122, B*5123, B*5124, B*5126, B*5127N, B*5128, B*5129, B*5130, B*5131, B*5132, B*5133, B*5134, B*520101, B*520102, B*520103, B*520104, B*5202, B*5203, B*5204, B*5205, B*5301, B*5302, B*5303, B*5304, B*5305, B*5306, B*5307, B*5308, B*5309, B*5901, B*7801, B*780201, B*780202, B*7803, B*7804, B*7805

- W = weakly targeted

HLA B Probe B277G2

Product Name	Size	Product Number
HaploPrep HLA-B B277G2	25 Separations	H112.PB277G2

Probe target sequence (unique sequence element, center nucleotide position & exon):

USE	center nt pos	exon
ACAAGGCCCAGG	277	2

HLA B Alleles Targeted:

B*070201, B*070202, B*070203, B*070204, B*0704, B*0705, B*0706, B*0707, B*0709, B*0710, B*0711, B*0712, B*0714, B*0715, B*0717, B*0718, B*0719, B*0720, B*0721, B*0722, B*0723, B*0724, B*0725, B*0726, B*0728, B*0729, B*0730, B*0731, B*0733, B*0734, B*0735, B*0736, B*1576, B*2701-W, B*2702-W, B*2703-W, B*2704-W, B*270502-W, B*270503-W, B*270504-W, B*270505-W, B*270506-W, B*2706-W, B*2707-W, B*2708-W, B*2709-W, B*2710-W, B*2711-W, B*2713-W, B*2714-W, B*2715-W, B*2717-W, B*2719-W, B*2720-W, B*2721-W, B*2724-W, B*2725-W, B*4201, B*4202, B*4204, B*4205, B*4506, B*5401, B*5402, B*5501, B*5502, B*5503, B*5504, B*5505, B*5507, B*5508, B*5509, B*5510, B*5511, B*5512, B*5513, B*5514, B*5515, B*5516, B*5601, B*5602, B*5603, B*5604, B*560501, B*560502, B*5606, B*5607, B*5609, B*5610, B*5611, B*5612, B*670101, B*670102, B*7301-W, B*8101, B*8102, B*8201, B*8202, B*8301

- W = weakly targeted

HLA-B Probe B317T

Product Name	Size	Product Number
HaploPrep HLA-B B317T	25 Separations	H112.PB317T

Probe target sequence (unique sequence element, center nucleotide position & exon):

USE	center nt pos	exon
ACCTGCGCG	315	2

HLA-B Alleles Targeted:

B*070201, B*070202, B*070203, B*070204, B*0703, B*0704, B*0705, B*0706, B*0707, B*0708, B*0709, B*0710, B*0711, B*0712, B*0713, B*0714, B*0715, B*0716, B*0717, B*0718, B*0719, B*0720, B*0721, B*0722, B*0723, B*0724, B*0725, B*0726, B*0728, B*0729, B*0730, B*0731, B*0732, B*0733, B*0734, B*0735, B*0737, B*0801, B*0804, B*0805, B*0806, B*0807, B*0808N, B*0809, B*0810, B*0811, B*0812, B*0813, B*0814, B*0815, B*0816, B*0817, B*0818, B*0819N, B*0820, B*0821, B*1309, B*1401, B*1402, B*1403, B*1404, B*1405, B*140601, B*140602, B*15010101, B*15010102N, B*150102, B*150103, B*150104, B*1502, B*1503, B*1504, B*1505, B*1506, B*1507, B*1508, B*1509, B*1510, B*151101, B*151102, B*1512, B*1514, B*1515, B*1518, B*1519, B*1520, B*1521, B*1525, B*1526N, B*1527, B*1528, B*1529, B*1530, B*1531, B*1532, B*1533, B*1534, B*1535, B*1537, B*1538, B*1539, B*1540, B*1542, B*1544, B*1545, B*1546, B*1547, B*1548, B*1549, B*1550, B*1551, B*1552, B*1553, B*1554, B*1555, B*1556, B*1557, B*1558, B*1560, B*1561, B*1562, B*1563, B*1564, B*1565, B*1566, B*1568, B*1569, B*1570, B*1571, B*1572, B*1573, B*1574, B*1575, B*1576, B*1577, B*1578, B*1579N, B*1580, B*1581, B*1582, B*1583, B*180101, B*180102, B*1802, B*1803, B*1804, B*1805, B*1806, B*1807, B*1808, B*1810, B*1811, B*1812, B*1813, B*1814, B*1815, B*1817N, B*1818, B*1819, B*2708, B*2712, B*2718, B*350101, B*350102, B*3502, B*3503, B*3504, B*3505, B*3506, B*3507, B*3508, B*350901, B*350902, B*3510, B*3511, B*3512, B*3513, B*351401, B*351402, B*3515, B*3516, B*3517, B*3518, B*3519, B*3520, B*3521, B*3522, B*3523, B*3524, B*3525, B*3526, B*3527, B*3528, B*3529, B*3530, B*3531, B*3532, B*3533, B*3534, B*3535, B*3536, B*3537, B*3538, B*3539, B*3540N, B*3541, B*3542, B*3543, B*3544, B*3545, B*3546, B*3547, B*3548, B*3549, B*3705, B*390101, B*390103, B*390104, B*390201, B*390202, B*3903, B*3904, B*3905, B*390601, B*390602, B*3907, B*3908, B*3909, B*3910, B*3911, B*3912, B*3913, B*3914, B*3915, B*3916, B*3917, B*3918, B*3919, B*3920, B*3922, B*3923, B*3924, B*3925N, B*3926, B*3927, B*3928, B*400101, B*400102, B*400103, B*400104, B*4002, B*4003, B*4004, B*4005, B*40060101, B*40060102, B*4007, B*4008, B*4009, B*4010, B*4011, B*4012, B*401401, B*401402, B*401403, B*4015, B*4016, B*4018, B*4020, B*4021, B*4022N, B*4023, B*4024, B*4025, B*4026, B*4027, B*4028, B*4029, B*4030, B*4031, B*4032, B*4033, B*4034, B*4035, B*4036, B*4037, B*4038, B*4039, B*4040, B*4042, B*4043, B*4044, B*4045, B*4046, B*4048, B*4101, B*4102, B*4103, B*4104, B*4105, B*4106, B*4201, B*4202, B*4204, B*4205, B*4409, B*4501, B*4502, B*4503, B*4504, B*4505, B*4506, B*4601, B*4602, B*4702, B*4801, B*4802, B*4803, B*4804, B*4805, B*4806, B*4807, B*4808, B*5001, B*5002, B*5004, B*5401, B*5402, B*5501, B*5502, B*5503, B*5504, B*5505, B*5507, B*5508, B*5509, B*5510, B*5511, B*5512, B*5513, B*5514, B*5515, B*5516, B*5601, B*5602, B*5603, B*5604, B*560501, B*560502, B*5606, B*5608, B*5609, B*5610, B*5611, B*5612, B*670101, B*670102, B*6702, B*7301, B*7801, B*780201, B*780202, B*7803, B*7804, B*7805, B*8101, B*8102, B*8201, B*8202, B*8301

Non HLA-B Alleles captured:

For Research Use Only

A*010101-W, A*010102-W, A*0102-W, A*0103-W, A*0104N-W, A*0106-W, A*0107-W, A*0108-W, A*0109-W, A*0110-W, A*02010101-W, A*02010102L-W, A*020102-W, A*020103-W, A*020104-W, A*020105-W, A*020106-W, A*020107-W, A*020108-W, A*020109-W, A*0202-W, A*0203-W, A*0204-W, A*0205-W, A*0206-W, A*0207-W, A*0208-W, A*0209-W, A*0210-W, A*0211-W, A*0212-W, A*0213-W, A*0214-W, A*0215N-W, A*0216-W, A*021701-W, A*021702-W, A*0218-W, A*0219-W, A*022001-W, A*022002-W, A*0221-W, A*0222-W, A*0224-W, A*0225-W, A*0226-W, A*0227-W, A*0228-W, A*0229-W, A*0230-W, A*0231-W, A*0232N-W, A*0233-W, A*0234-W, A*0235-W, A*0236-W, A*0237-W, A*0238-W, A*0239-W, A*0240-W, A*0241-W, A*0242-W, A*0243N-W, A*0244-W, A*0245-W, A*0246-W, A*0247-W, A*0248-W, A*0249-W, A*0250-W, A*0251-W, A*0252-W, A*0253N-W, A*0254-W, A*0255-W, A*0256-W, A*0257-W, A*0258-W, A*0259-W, A*0260-W, A*0261-W, A*0262-W, A*0263-W, A*0264-W, A*0265-W, A*0266-W, A*0267-W, A*0268-W, A*03010101-W, A*03010102N-W, A*030102-W, A*030103-W, A*0302-W, A*0303N-W, A*0304-W, A*0305-W, A*0306-W, A*0307-W, A*0308-W, A*0309-W, A*0310-W, A*0311N-W, A*0312-W, A*0313-W, A*0314-W, A*110101-W, A*110102, A*1102-W, A*1103-W, A*1104-W, A*1105-W, A*1106-W, A*1107-W, A*1108-W, A*1109-W, A*1110-W, A*1111-W, A*1112-W, A*1113-W, A*1114-W, A*1115-W, A*1116-W, A*1117-W, A*2404-W, A*2419-W, A*2428-W, A*2601-W, A*2602-W, A*2603-W, A*2604-W, A*2605-W, A*2606-W, A*260701-W, A*260702-W, A*2608-W, A*2609-W, A*2610-W, A*2611N-W, A*2612-W, A*2613-W, A*2614-W, A*2615-W, A*2616-W, A*2617-W, A*2618-W, A*2619-W, A*2620-W, A*29010101-W, A*29010102N-W, A*290201-W, A*290202-W, A*290203-W, A*2903-W, A*2904-W, A*2905-W, A*2906-W, A*2907-W, A*2908N-W, A*2909-W, A*2910-W, A*2911-W, A*3001-W, A*3002-W, A*3003-W, A*3004-W, A*3006-W, A*3007-W, A*3008-W, A*3009-W, A*3010-W, A*3011-W, A*3012-W, A*310102-W, A*3102-W, A*3103-W, A*3104-W, A*3105-W, A*3106-W, A*3109-W, A*3301-W, A*330301-W, A*330302-W, A*3304-W, A*3305-W, A*3306-W, A*3307-W, A*3401-W, A*3402-W, A*3403-W, A*3404-W, A*3405-W, A*3601-W, A*3602-W, A*3603-W, A*3604-W, A*4301-W, A*6601-W, A*6602-W, A*6603-W, A*6604-W, A*680101-W, A*680102-W, A*680103-W, A*6802-W, A*680301-W, A*680302-W, A*6804-W, A*6805-W, A*6806-W, A*6807-W, A*6808-W, A*6809-W, A*6810-W, A*6811N-W, A*6812-W, A*6813-W, A*6814-W, A*6815-W, A*6816-W, A*6817-W, A*6818N-W, A*6819-W, A*6820-W, A*6821-W, A*6823-W, A*6824-W, A*6825-W, A*6901-W, A*7401-W, A*7402-W, A*7404-W, A*7405-W, A*7406-W, A*7407-W, A*7408-W, A*7409-W, A*7410-W, A*8001-W

Cw*010201, Cw*010202, Cw*0103, Cw*0104, Cw*0105, Cw*0106, Cw*0107, Cw*0108, Cw*0109, Cw*0110, Cw*020202, Cw*020203, Cw*020204, Cw*020205, Cw*0203, Cw*0204, Cw*0205, Cw*0206, Cw*0207, Cw*0208, Cw*0209, Cw*030201, Cw*030202, Cw*030301, Cw*030302, Cw*030303, Cw*030304, Cw*030401, Cw*030402, Cw*030403, Cw*0305, Cw*0306, Cw*0307, Cw*0308, Cw*0309, Cw*0310, Cw*0311, Cw*0312, Cw*0313, Cw*0314, Cw*0315, Cw*0316, Cw*04010101, Cw*04010102, Cw*040102, Cw*0403, Cw*040401, Cw*040402, Cw*0405, Cw*0406, Cw*0407, Cw*0408, Cw*0409N, Cw*0410, Cw*0411, Cw*0412, Cw*0413, Cw*0414, Cw*0415, Cw*0501, Cw*0502, Cw*0503, Cw*0504, Cw*0505, Cw*0506, Cw*0507N, Cw*0508, Cw*0509, Cw*0602, Cw*0603, Cw*0604, Cw*0605, Cw*0606, Cw*0607, Cw*0608, Cw*0609, Cw*0610, Cw*0611, Cw*070101, Cw*070102, Cw*070103, Cw*07020101, Cw*07020102, Cw*0703, Cw*070401, Cw*070402, Cw*0705, Cw*0706, Cw*0707, Cw*0708, Cw*0709, Cw*0710, Cw*0711, Cw*0712, Cw*0713, Cw*0714, Cw*0715, Cw*0716, Cw*0717, Cw*0718, Cw*0719, Cw*0720, Cw*0721, Cw*0722, Cw*0723, Cw*0724, Cw*0725, Cw*0726, Cw*080101, Cw*080102, Cw*0802, Cw*0803, Cw*0804, Cw*0805, Cw*0806, Cw*0807, Cw*0808, Cw*0809, Cw*0810, Cw*0811, Cw*0812, Cw*120201, Cw*120202, Cw*120203, Cw*120301, Cw*120302, Cw*120303, Cw*120401, Cw*120402, Cw*1205, Cw*1206, Cw*1207, Cw*1208, Cw*1209, Cw*1210, Cw*1211, Cw*140201, Cw*140202, Cw*140203,

Cw*1403, Cw*1404, Cw*1405, Cw*150201, Cw*150202, Cw*1503, Cw*1504, Cw*150501, Cw*150502, Cw*150503, Cw*1506, Cw*1507, Cw*1508, Cw*1509, Cw*1510, Cw*1511, Cw*1512, Cw*1601, Cw*1602, Cw*160401, Cw*1606, Cw*1701, Cw*1702, Cw*1703, Cw*1801, Cw*1802

- W = weakly targeted

HLA B Probe B355A

Product Name	Size	Product Number
HaploPrep HLA-B B355A	25 Separations	H112.PB355A

Probe target sequence (unique sequence element, center nucleotide position & exon):

USE	center nt pos	exon
TCATC	355	3

HLA B Alleles Targeted:

B*0712, B*0714, B*0718, B*1301, B*1306, B*1307N, B*1312, B*1313, B*1502, B*1513, B*1520, B*1521, B*1525, B*1536, B*1544, B*1562, B*1577, B*1580, B*2719, B*350101, B*350102, B*3502, B*3503, B*3504, B*3506, B*3507, B*3508, B*350901, B*350902, B*3510, B*3511, B*3512, B*3513, B*351401, B*351402, B*3515, B*3516, B*3517, B*3518, B*3519, B*3520, B*3521, B*3523, B*3524, B*3525, B*3526, B*3527, B*3528, B*3529, B*3530, B*3533, B*3534, B*3535, B*3536, B*3538, B*3539, B*3540N, B*3541, B*3542, B*3545, B*3546, B*3547, B*3548, B*3549, B*3701-W, B*3703N-W, B*3704-W, B*3705-W, B*3706-W, B*4004, B*4028, B*4030, B*4034, B*44020101, B*44020102S, B*440202, B*440203, B*440301, B*440302, B*4404, B*4405, B*4406, B*4407, B*4408, B*4409, B*4410, B*4411, B*4412, B*4413, B*4414, B*4416, B*4417, B*4419N, B*4421, B*4422, B*4423N, B*4424, B*4425, B*4426, B*4427, B*4428, B*4429, B*4430, B*4432, B*4433, B*4434, B*4435, B*4436, B*4437, B*4438, B*4439, B*4802, B*5104, B*5301, B*5302, B*5303, B*5304, B*5305, B*5306, B*5307-W, B*5308, B*5309, B*5514, B*5609, B*5611, B*5612, B*570101, B*570102, B*5702, B*570301, B*570302, B*5704, B*5705, B*5706, B*5707, B*5708, B*5709, B*5801, B*5804, B*5805, B*5809, B*8301

Non HLA-B Alleles captured:

Cw*030301, Cw*030302, Cw*030303, Cw*030304, Cw*030401, Cw*030402, Cw*030403, Cw*0306, Cw*0307, Cw*0308, Cw*0309, Cw*0310, Cw*0311, Cw*0312, Cw*0314, Cw*0710, Cw*150201, Cw*150202, Cw*1503, Cw*1504, Cw*150501, Cw*150502, Cw*150503, Cw*1506, Cw*1507, Cw*1508, Cw*1509, Cw*1510, Cw*1511, Cw*1512

- W = weakly targeted

HLA-B Probe B355C

Product Name	Size	Product Number
HaploPrep HLA-B B355C	25 Separations	H112.PB355C

Probe target sequence (unique sequence element, center nucleotide position & exon):

USE	center nt pos	exon
CCCTC	355	3

HLA-B Alleles Targeted:

B*070201, B*070202, B*070203, B*070204, B*0703, B*0704, B*0705, B*0706, B*0707, B*0708, B*0709, B*0710, B*0711, B*0713, B*0715, B*0716, B*0717, B*0719, B*0720, B*0721, B*0722, B*0723, B*0724, B*0725, B*0726, B*0727, B*0728, B*0729, B*0730, B*0731, B*0732, B*0733, B*0734, B*0735, B*0736, B*0737, B*0738, B*0801, B*0802, B*0803, B*0804, B*0805, B*0806, B*0807, B*0808N, B*0810, B*0811, B*0812, B*0813, B*0814, B*0815, B*0816, B*0817, B*0818, B*0819N, B*0820, B*0821, B*1310, B*1311, B*1401, B*1402, B*1403, B*1404, B*1405, B*140601, B*140602, B*15010101, B*15010102N, B*150102, B*150103, B*150104, B*1503, B*1505, B*1506, B*1507, B*1508, B*1509, B*1510, B*151101, B*151102, B*1512, B*1514, B*1515, B*15170101, B*15170102, B*1518, B*1519, B*1523, B*1524, B*1526N, B*1527, B*1528, B*1529, B*1530, B*1531, B*1532, B*1533, B*1534, B*1535, B*1537, B*1538, B*1539, B*1540, B*1543, B*1545, B*1546, B*1547, B*1548, B*1549, B*1550, B*1551, B*1552, B*1553, B*1554, B*1555, B*1556, B*1557, B*1558, B*1560, B*1561, B*1563, B*1564, B*1565, B*1566, B*1568, B*1569, B*1570, B*1571, B*1572, B*1573, B*1574, B*1575, B*1576, B*1578, B*1579N, B*1581, B*1582, B*180101, B*180102, B*1802, B*1803, B*1804, B*1805, B*1806, B*1807, B*1808, B*1809, B*1810, B*1811, B*1812, B*1813, B*1814, B*1815, B*1817N, B*1818, B*1819, B*2701, B*2702, B*2703, B*2704, B*270502, B*270503, B*270504, B*270505, B*270506, B*2706, B*2707, B*2708, B*2709, B*2710, B*2711, B*2712, B*2713, B*2715, B*2716, B*2717, B*2718, B*2720, B*2721, B*2723, B*2724, B*2725, B*3505, B*3522, B*3531, B*3532, B*3543, B*3544, B*3702, B*3707, B*3801, B*380201, B*380202, B*3803, B*3804, B*3805, B*3806, B*3807, B*3808, B*3809, B*390101, B*390103, B*390104, B*390201, B*390202, B*3903, B*3904, B*3905, B*3907, B*3908, B*3909, B*3910, B*3911, B*3912, B*3913, B*3914, B*3915, B*3916, B*3917, B*3918, B*3919, B*3920, B*3922, B*3923, B*3924, B*3925N, B*3926, B*3927, B*3928, B*400101, B*400102, B*400103, B*400104, B*4002, B*4003, B*4005, B*4007, B*4008, B*4009, B*4010, B*4011, B*4012, B*4013, B*401401, B*401402, B*401403, B*4015, B*4016, B*4018, B*4019, B*4020, B*4021, B*4022N, B*4023, B*4024, B*4025, B*4026, B*4027, B*4029, B*4031, B*4032, B*4033, B*4035, B*4036, B*4037, B*4038, B*4039, B*4040, B*4042, B*4043, B*4045, B*4046, B*4047, B*4048, B*4102, B*4103, B*4104, B*4201, B*4202, B*4205, B*4431, B*4601, B*4602, B*47010101, B*47010102, B*4702, B*4703, B*4704, B*4801, B*4803, B*4804, B*4805, B*4806, B*4807, B*4808, B*5106, B*5504, B*5508, B*5602, B*5603, B*5604, B*5610, B*5802, B*5806, B*5807, B*670101, B*670102, B*6702, B*8101, B*8102, B*8201, B*8202

Non HLA-B Alleles captured:

A*010101, A*010102, A*0102, A*0103, A*0104N, A*0106, A*0107, A*0108, A*0109, A*0110, A*0202, A*0205, A*0208, A*0214, A*021701, A*021702, A*0247, A*0250, A*0257, A*0258, A*0263, A*0265, A*03010101, A*03010102N, A*030102, A*030103, A*0302, A*0303N, A*0304, A*0305, A*0306, A*0307, A*0308, A*0309, A*0310, A*0311N, A*0312,

For Research Use Only

A*0313, A*0314, A*110101, A*110102, A*1102, A*1103, A*1104, A*1105, A*1106, A*1107, A*1108, A*1109, A*1110, A*1111, A*1112, A*1113, A*1114, A*1115, A*1116, A*1117, A*2301, A*2302, A*2303, A*2304, A*2305, A*2306, A*2307N, A*2308N, A*2309, A*2310, A*2311N, A*2312, A*24020101, A*24020102L, A*240202, A*240203, A*240204, A*240205, A*240301, A*240302, A*2404, A*2405, A*2406, A*2407, A*2408, A*2409N, A*2410, A*2411N, A*2413, A*2415, A*2417, A*2418, A*2419, A*2420, A*2421, A*2422, A*2423, A*2424, A*2425, A*2426, A*2427, A*2428, A*2429, A*2430, A*2431, A*2432, A*2433, A*2434, A*2435, A*2436N, A*2437, A*2438, A*2439, A*2440N, A*2441, A*2442, A*250101, A*250102, A*2502, A*2503, A*2504, A*2601, A*2602, A*2603, A*2604, A*2605, A*2606, A*260701, A*260702, A*2608, A*2609, A*2610, A*2611N, A*2612, A*2613, A*2614, A*2615, A*2616, A*2618, A*2619, A*2620, A*29010101, A*29010102N, A*290201, A*290202, A*290203, A*2903, A*2904, A*2905, A*2906, A*2907, A*2908N, A*2909, A*2910, A*2911, A*3001, A*3002, A*3003, A*3004, A*3006, A*3007, A*3008, A*3009, A*3010, A*3011, A*3012, A*310102, A*3102, A*3103, A*3104, A*3105, A*3106, A*3107, A*3108, A*3109, A*3201, A*3202, A*3203, A*3204, A*3205, A*3206, A*3207, A*3301, A*330301, A*330302, A*3304, A*3305, A*3306, A*3307, A*3401, A*3402, A*3403, A*3404, A*3405, A*3601, A*3602, A*3603, A*3604, A*4301, A*6601, A*6602, A*6603, A*6604, A*680101, A*680102, A*680103, A*6802, A*680301, A*680302, A*6804, A*6805, A*6806, A*6807, A*6808, A*6809, A*6810, A*6811N, A*6812, A*6813, A*6814, A*6815, A*6816, A*6817, A*6818N, A*6819, A*6820, A*6821, A*6822, A*6823, A*6824, A*6825, A*7401, A*7402, A*7403, A*7404, A*7405, A*7406, A*7407, A*7408, A*7409, A*7410, A*8001 Cw*010201, Cw*0103, Cw*0104, Cw*0105, Cw*0106, Cw*0107, Cw*0108, Cw*0109, Cw*0110, Cw*020201, Cw*020202, Cw*020203, Cw*020204, Cw*020205, Cw*0203, Cw*0204, Cw*0205, Cw*0206, Cw*0207, Cw*0208, Cw*0209, Cw*0305, Cw*0313, Cw*04010101, Cw*04010102, Cw*040102, Cw*0403, Cw*040401, Cw*040402, Cw*0405, Cw*0406, Cw*0407, Cw*0408, Cw*0409N, Cw*0410, Cw*0411, Cw*0412, Cw*0413, Cw*0414, Cw*0415, Cw*0501, Cw*0502, Cw*0503, Cw*0504, Cw*0505, Cw*0506, Cw*0508, Cw*0509, Cw*0602, Cw*0603, Cw*0604, Cw*0605, Cw*0606, Cw*0607, Cw*0608, Cw*0609, Cw*0610, Cw*0611, Cw*070101, Cw*070102, Cw*070103, Cw*07020101, Cw*07020102, Cw*0703, Cw*0705, Cw*0706, Cw*0707, Cw*0708, Cw*0709, Cw*0713, Cw*0714, Cw*0715, Cw*0716, Cw*0717, Cw*0718, Cw*0719, Cw*0720, Cw*0721, Cw*0722, Cw*0723, Cw*0724, Cw*0725, Cw*0726, Cw*080101, Cw*080102, Cw*0802, Cw*0803, Cw*0804, Cw*0805, Cw*0806, Cw*0807, Cw*0808, Cw*0809, Cw*0810, Cw*0811, Cw*0812, Cw*120201, Cw*120202, Cw*120203, Cw*120301, Cw*120302, Cw*120303, Cw*120401, Cw*120402, Cw*1205, Cw*1206, Cw*1207, Cw*1208, Cw*1209, Cw*1210, Cw*1211, Cw*1212, Cw*140201, Cw*140202, Cw*140203, Cw*1403, Cw*1404, Cw*1405, Cw*1601, Cw*1602, Cw*160401, Cw*1606, Cw*1701, Cw*1702, Cw*1703, Cw*1801, Cw*1802 F*010101, F*010102, G*010101-W G*010103-W, G*010104-W, G*010105-W, G*010106-W, G*010108-W, G*0102-W, G*0103-W, G*010401-W, G*010402-W, G*010403-W

- W = weakly targeted

HLA-B Probe B355T

Product Name	Size	Product Number
HaploPrep HLA-B B355T	25 Separations	H112.PB355T

Probe target sequence (unique sequence element, center nucleotide position & exon):

USE	center nt pos	exon
CTTGG	355	3

HLA-B Alleles Targeted:

B*0809, B*1302, B*1303, B*1304, B*1308, B*1309, B*1504, B*1516, B*1542, B*1567, B*1583, B*2714, B*3537, B*390601, B*390602, B*40060101, B*40060102, B*4044, B*4101, B*4105, B*4106, B*4204, B*4415, B*4418, B*4420, B*4501, B*4502, B*4503, B*4504, B*4505, B*4506, B*4901, B*4902, B*4903, B*5001, B*5002, B*5004, B*510101, B*510102, B*510103, B*510104, B*510105, B*510201, B*510202, B*5103, B*5105, B*5107, B*5108, B*5109, B*5110, B*5111N, B*5112, B*511301, B*511302, B*5114, B*5115, B*5116, B*5117, B*5118, B*5119, B*5120, B*5121, B*5122, B*5123, B*5124, B*5126, B*5127N, B*5128, B*5129, B*5130, B*5131, B*5132, B*5133, B*5134, B*520101, B*520102, B*520103, B*520104, B*5202, B*5203, B*5204, B*5205, B*5401, B*5402, B*5501, B*5502, B*5503, B*5505, B*5507, B*5509, B*5510, B*5511, B*5512, B*5513, B*5515, B*5516, B*5601, B*560501, B*560502, B*5606, B*5607, B*5608, B*5808, B*5901, B*7301, B*7801, B*780201, B*780202, B*7803, B*7804, B*7805

- W = weakly targeted

HLA B Probe B539A

Product Name	Size	Product Number
HaploPrep HLA-B B539A	25 Separations	H112.PB539A

Probe target sequence (unique sequence element, center nucleotide position & exon):

USE	center nt pos	exon
GGACA	539	3

HLA B Alleles Targeted:

B*0704, B*0719, B*0725, B*0801, B*0802, B*0803, B*0804, B*0805, B*0807, B*0808N, B*0809, B*0810, B*0811, B*0812, B*0814, B*0815, B*0816, B*0817, B*0818, B*0819N, B*0821, B*1551, B*1583, B*3538, B*3701, B*3703N, B*3704, B*3705, B*4101, B*4102, B*4103, B*4104, B*4105, B*4106, B*4201, B*4202, B*4204, B*4205, B*44020101, B*44020102S, B*440202, B*440203, B*4405, B*4406, B*4408, B*4409, B*4411, B*4412, B*4414, B*4415, B*4416, B*4417, B*4418, B*4419N, B*4420, B*4421, B*4422, B*4423N, B*4424, B*4425, B*4427, B*4433, B*4434, B*4501, B*4502, B*4503, B*4504, B*4505, B*4506, B*5108, B*5120, B*5709, B*8201, B*8202, B*8301

Non HLA-B Alleles captured:

Cw*070401, Cw*070402, Cw*0711, Cw*0712

- W = weakly targeted

HLA-B Probe B539T

Product Name	Size	Product Number
HaploPrep HLA-B B539T	25 Separations	H112.PB539T

Probe target sequence (unique sequence element, center nucleotide position & exon):

USE	center nt pos	exon
GCTGA	539	3

HLA-B Alleles Targeted:

B*0734, B*0813, B*1301, B*1302, B*1303, B*1304, B*1306, B*1307N, B*1308, B*1309, B*1310, B*1311, B*1312, B*1313, B*1401, B*1402, B*1404, B*1405, B*140601, B*140602, B*1502, B*1503, B*1505, B*1506, B*1509, B*1510, B*1513, B*1516, B*15170101, B*15170102, B*1518, B*1520, B*1521, B*1523, B*1525, B*1529, B*1531, B*1536, B*1537, B*1539, B*1540, B*1542, B*1544, B*1548, B*1552, B*1555, B*1561, B*1562, B*1564, B*1567, B*1569, B*1572, B*1574, B*1580, B*180101, B*180102, B*1802, B*1803, B*1804, B*1805, B*1806, B*1807, B*1808, B*1809, B*1810, B*1811, B*1812, B*1814, B*1815, B*1817N, B*1818, B*2701, B*2702, B*2703, B*2704, B*270502, B*270503, B*270504, B*270505, B*270506, B*2706, B*2707, B*2708, B*2709, B*2710, B*2711, B*2712, B*2713, B*2714, B*2715, B*2716, B*2717, B*2718, B*2719, B*2720, B*2721, B*2723, B*2724, B*350101, B*350102, B*3502, B*3503, B*3504, B*3505, B*3506, B*3507, B*350901, B*350902, B*3510, B*3511, B*3512, B*3513, B*3515, B*3516, B*3517, B*3519, B*3520, B*3521, B*3522, B*3523, B*3524, B*3525, B*3526, B*3527, B*3528, B*3529, B*3530, B*3531, B*3532, B*3533, B*3534, B*3535, B*3536, B*3537, B*3539, B*3540N, B*3541, B*3542, B*3546, B*3547, B*3548, B*3549, B*3702, B*3801, B*380201, B*380202, B*3803, B*3804, B*3805, B*3806, B*3807, B*3808, B*3809, B*390101, B*390103, B*390104, B*390201, B*390202, B*3903, B*3904, B*3905, B*390601, B*390602, B*3907, B*3909, B*3910, B*3912, B*3913, B*3914, B*3915, B*3916, B*3917, B*3919, B*3920, B*3922, B*3923, B*3924, B*3925N, B*3926, B*3927, B*3928, B*400101, B*400102, B*400103, B*400104, B*4002, B*4003, B*4004, B*4005, B*40060101, B*40060102, B*4007, B*4008, B*4009, B*4010, B*4011, B*4012, B*4013, B*401401, B*401402, B*401403, B*4018, B*4019, B*4020, B*4021, B*4022N, B*4024, B*4025, B*4026, B*4027, B*4028, B*4029, B*4030, B*4031, B*4033, B*4034, B*4035, B*4036, B*4037, B*4038, B*4039, B*4040, B*4042, B*4043, B*4044, B*4045, B*4046, B*4047, B*4048, B*440301, B*440302, B*4407, B*4410, B*4413, B*4426, B*4429, B*4430, B*4431, B*4432, B*4436, B*4437, B*4438, B*4439, B*47010101, B*47010102, B*4702, B*4703, B*4704, B*4801, B*4802, B*4803, B*4804, B*4806, B*4807, B*4901, B*4902, B*4903, B*5001, B*5002, B*5004, B*510101, B*510102, B*510103, B*510104, B*510105, B*510201, B*510202, B*5103, B*5104, B*5106, B*5107, B*5109, B*5110, B*5111N, B*5112, B*511301, B*511302, B*5114, B*5115, B*5116, B*5117, B*5118, B*5119, B*5121, B*5122, B*5123, B*5124, B*5126, B*5127N, B*5128, B*5130, B*5131, B*5132, B*5133, B*5134, B*520101, B*520102, B*520103, B*520104, B*5202, B*5203, B*5204, B*5205, B*5301, B*5302, B*5303, B*5304, B*5305, B*5306, B*5307, B*5308, B*5309, B*5401, B*5402, B*5501, B*5502, B*5503, B*5504, B*5505, B*5507, B*5508, B*5510, B*5511, B*5512, B*5513, B*5514, B*5515, B*5516, B*5601, B*5602, B*5604, B*560501, B*560502, B*5606, B*5607, B*5608, B*5609, B*5610, B*5611, B*5612, B*570101, B*570102, B*570301, B*570302, B*5706, B*5707, B*5708, B*5801, B*5802, B*5804, B*5805, B*5806, B*5807, B*5808, B*5809, B*5901, B*670101, B*670102, B*6702, B*7301, B*7801, B*780201, B*780202, B*7803, B*7804, B*7805, B*8101, B*8102

For Research Use Only

Non HLA-B Alleles captured:

A*030102, A*6808, A*8001-W

Cw*0203, Cw*030201, Cw*030202, Cw*030301, Cw*030302, Cw*030303, Cw*030304,
Cw*030401, Cw*030402, Cw*030403, Cw*0305, Cw*0306, Cw*0307, Cw*0308, Cw*0309,
Cw*0310, Cw*0311, Cw*0312, Cw*0313, Cw*0314, Cw*0315, Cw*0316, Cw*0404,
Cw*040402, Cw*0406, Cw*0413, Cw*0604, Cw*070101, Cw*070102, Cw*070103,
Cw*07020101, Cw*07020102, Cw*0703, Cw*0705, Cw*0706, Cw*0707, Cw*0708,
Cw*0709, Cw*0710, Cw*0713, Cw*0714, Cw*0715, Cw*0716, Cw*0717, Cw*0718,
Cw*0719, Cw*0720, Cw*0721, Cw*0723, Cw*0724, Cw*0725, Cw*0726, Cw*080101,
Cw*080102, Cw*0803, Cw*0804, Cw*0806, Cw*0808, Cw*0809, Cw*0810, Cw*0811,
Cw*150201, Cw*150202, Cw*1503, Cw*1504, Cw*150501, Cw*150502, Cw*150503,
Cw*1506, Cw*1507, Cw*1509, Cw*1510, Cw*1511, Cw*1512, Cw*1701, Cw*1702,
Cw*1703

- W = weakly targeted

HLA-B Probe B559C

Product Name	Size	Product Number
HaploPrep HLA-B B559C	25 Separations	H112.PB559C

Probe target sequence (unique sequence element, center nucleotide position & exon):

USE	center nt pos	exon
GCCTG	559	3

HLA-B Alleles Targeted:

B*0720, B*0724, B*0821, B*1303, B*1304, B*15010101, B*15010102N, B*150102, B*150103, B*150104, B*1502, B*1503, B*1504, B*1505, B*1506, B*1507, B*1508, B*1509, B*1510, B*151101, B*151102, B*1512, B*1513, B*1514, B*1515, B*1516, B*15170101, B*15170102, B*1518, B*1519, B*1520, B*1521, B*1523, B*1524, B*1525, B*1526N, B*1527, B*1528, B*1529, B*1530, B*1531, B*1532, B*1533, B*1534, B*1535, B*1536, B*1537, B*1538, B*1539, B*1543, B*1545, B*1546, B*1548, B*1551, B*1553, B*1554, B*1555, B*1556, B*1557, B*1558, B*1560, B*1561, B*1562, B*1563, B*1564, B*1565, B*1566, B*1567, B*1568, B*1570, B*1571, B*1572, B*1573, B*1574, B*1575, B*1576, B*1577, B*1578, B*1579N, B*1580, B*1581, B*1582, B*2725, B*350101, B*350102, B*3502, B*3503, B*3504, B*3505, B*3506, B*3507, B*3508, B*350901, B*350902, B*3510, B*3511, B*3512, B*3513, B*351401, B*351402, B*3516, B*3517, B*3518, B*3519, B*3520, B*3521, B*3522, B*3523, B*3524, B*3525, B*3526, B*3527, B*3528, B*3529, B*3530, B*3532, B*3534, B*3536, B*3537, B*3538, B*3539, B*3540N, B*3541, B*3542, B*3543, B*3544, B*3545, B*3546, B*3547, B*3548, B*3549, B*3808, B*4005, B*4026, B*4028, B*44020101, B*44020102S, B*440202, B*440203, B*440301, B*440302, B*4405, B*4406, B*4407, B*4408, B*4409, B*4410, B*4411, B*4412, B*4413, B*4414, B*4415, B*4417, B*4418, B*4419N, B*4420, B*4422, B*4423N, B*4424, B*4425, B*4426, B*4427, B*4428, B*4429, B*4430, B*4432, B*4433, B*4434, B*4435, B*4436, B*4437, B*4438, B*4439, B*4501, B*4502, B*4503, B*4504, B*4505, B*4506, B*4601, B*4602, B*4802, B*4901, B*4902, B*4903, B*5001, B*5002, B*5004, B*510101, B*510102, B*510103, B*510104, B*510105, B*510201, B*510202, B*5103, B*5104, B*5105, B*5106, B*5107, B*5108, B*5109, B*5111N, B*5112, B*511301, B*511302, B*5114, B*5115, B*5117, B*5118, B*5119, B*5120, B*5122, B*5123, B*5124, B*5126, B*5127N, B*5128, B*5129, B*5130, B*5132, B*5133, B*520101, B*520102, B*520103, B*520104, B*5202, B*5203, B*5204, B*5205, B*5301, B*5302, B*5303, B*5304, B*5305, B*5306, B*5307, B*5308, B*5309, B*5508, B*5601, B*5602, B*5603, B*5604, B*560501, B*560502, B*5606, B*5607, B*5608, B*5609, B*5611, B*570101, B*570102, B*5702, B*570301, B*570302, B*5704, B*5705, B*5706, B*5707, B*5708, B*5709, B*5801, B*5802, B*5804, B*5806, B*5807, B*5808, B*5809, B*7801, B*780201, B*780202, B*7803, B*7804, B*7805, B*8202, B*8301

Non HLA-B Alleles captured:

A*2604

Cw*030201, Cw*030202, Cw*030301, Cw*030302, Cw*030303, Cw*030304, Cw*030401, Cw*030402, Cw*030403, Cw*0305, Cw*0306, Cw*0307, Cw*0308, Cw*0309, Cw*0310, Cw*0311, Cw*0312, Cw*0313, Cw*0315, Cw*0408, Cw*0502, Cw*0703

- W = weakly targeted

HLA B Probe B559G

Product Name	Size	Product Number
HaploPrep HLA-B B559G	25 Separations	H112.PB559G

Probe target sequence (unique sequence element, center nucleotide position & exon):

USE	center nt pos	exon
GCGAG	559	3

HLA B Alleles Targeted:

B*070201, B*070202, B*070203, B*070204, B*0703, B*0704, B*0705, B*0706, B*0707, B*0708, B*0709, B*0710, B*0711, B*0712, B*0713, B*0714, B*0715, B*0716, B*0717, B*0718, B*0721, B*0722, B*0723, B*0725, B*0726, B*0727, B*0728, B*0729, B*0730, B*0732, B*0733, B*0735, B*0736, B*0737, B*0738, B*1301, B*1302, B*1307N, B*1308, B*1309, B*1310, B*1311, B*1313, B*1540, B*1547, B*1549, B*1552, B*1810, B*2701, B*2702, B*2703, B*2704, B*270502, B*270503, B*270504, B*270505, B*270506, B*2706, B*2707, B*2708, B*2709, B*2710, B*2711, B*2712, B*2713, B*2714, B*2716, B*2717, B*2718, B*2719, B*2720, B*2721, B*2723, B*2724, B*3515, B*3531, B*3533, B*3702, B*3707, B*400101, B*400102, B*400103, B*400104, B*4002, B*4003, B*4004, B*40060101, B*40060102, B*4007, B*4008, B*4009, B*4010, B*4011, B*4012, B*4013, B*401401, B*401402, B*401403, B*4015, B*4016, B*4018, B*4019, B*4020, B*4021, B*4022N, B*4023, B*4024, B*4025, B*4027, B*4029, B*4030, B*4031, B*4032, B*4033, B*4034, B*4035, B*4036, B*4037, B*4038, B*4040, B*4042, B*4043, B*4044, B*4045, B*4046, B*4047, B*4048, B*4416, B*4421, B*4431, B*47010101, B*47010102, B*4702, B*4703, B*4704, B*4801, B*4803, B*4804, B*4805, B*4806, B*4807, B*4808, B*5110, B*5116, B*5131, B*5134, B*5509, B*7301, B*8101, B*8102

Non HLA-B Alleles Captured:

A*0216, A*6602, A*6603, A*8001
 Cw*0110, Cw*020201, Cw*020202, Cw*020203, Cw*020204, Cw*020205, Cw*0203, Cw*0204, Cw*0205, Cw*0206, Cw*0207, Cw*0208, Cw*0209, Cw*0608, Cw*0715, Cw*1701, Cw*1702, Cw*1703
 F*010101, F*010102

- W = weakly targeted

