

## Product datasheet for SC123794

### HLA (BC001023) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HLA (BC001023) Human Untagged Clone
Tag:	Tag Free
Symbol:	HLA
Synonyms:	DRB1; DRw10; HLA-DR1B; HLA-DR3B; HLA-DRB; SS1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for BC001023 edited  
GTTCTCCCTGAGTGAGACTCACCTGCTCCTCTGGCCCTGGTCTCTGTTCTCCAGC  
ATGGTGTGTCTGAAGCTCCCTGGAGCTCCTGCATGGCAGCTCTGACAGTGACACTGATG  
GTGCTGAGCTCCCACTGGCTTTGGCTGGGGACACCAACCACGTTTCCTGTGGCAGGGT  
AAGTATAAGTGTCAATTTCTCAACGGGACGGAGCGGGTGCAATTCTGGAAGACTCTTC  
TATAACCAGGAGGAGTTCGTGCGCTTCGACAGCGACGTGGGGGAGTACCGGGCGGTGACG  
GAGCTAGGGCGGCCTGTCGCCGAGTCTGGAACAGCCAGAAGGACATCCTGGAGGACAGG  
CGGGGCCAGGTGGACACCGTGTGCAGACACAACACTACGGGGTTGGTGAGAGCTTCACAGTG  
CAGCGGCGAGTCCATCCTGAGGTGACTGTGTATCCTGCCAAGACTCAGCCCTGCAGCAC  
CACAACCTCCTGGTCTGCTCTGTGAGTGGTTTCTATCCAGGCAGCATTGAAGTCAGGTGG  
TTCCGGAAACGGCCAGGAAGAGAAGGCTGGGGTGGTGTCCACAGGCCTGATCCAGAATGGA  
GACTGGACCTTCCAGACCTGGTGATGCTGGAAACAGTTCTCGGAGTGGAGAAGTTTAC  
ACCTGCCAAGTGGAGCACCCAAGTGTGATGAGCCCTCTCACAGTGAATGGAGAGCACGG  
TCTGAATCTGCACAGAGCAAGATGCTGAGTGGAGTCGGGGGCTTTGTGCTGGGCCTGCTC  
TTCCTTGGGGCCGGGTTGTTCACTACTCAGGAATCAGAAAGGACACTCTGGACTTCAG  
CCAACAGGATTCCTGAGCTGAAGTGAAGATGACCACATTAAGGAAAAACCTTCTGCCCC  
AGCTTTGCAGGATGAAACACTTCCCCGCTTGGCTCTCATTCTTCCACAAGAGACCTTT  
CTCCGGACCTGGTTGCTACTGGTTCAGCAACTCTGCAGAAAATGTCTCCCTGTGGCTG  
CCTCAGTCAATGCCTTTGGCCTGAAGTCCAGCATTGATGGCAGCCCTCATCTTCCAAG  
TTTTGTGCTCCCTTTACCTAACGCTTCTGCCTCCCATGCATCTGTACTCTCCTGTGC  
CACAAACACATTACATTATTAATGTTTCTCAAACATGGAAAAAAAAAAAAAAAAAAAAA  
AAA



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for BC001023 unedited NNNAAGGTCAAAATTTGTAACGACTCACTATAGGCGGCCGGAATTCGCACGAGTTCT CCCTGAGTGAGACTCACCTGCTCCTCTGGCCCCTGGTCTGTCTGTTCTCCAGCATGGT GTGTCTGAAGCTCCCTGGAGGCTCCTGCATGGCAGCTCTGACAGTGACACTGATGGTGCT GAGTCCCCACTGGCTTTGGCTGGGGACACCAACCACGTTTCCTGTGGCAGGGTAAGTA TAAGTGCATTTCTTCAACGGGACGGAGCGGGTGCAGTTCCTGAAAGACTCTTCTATAA CCAGGAGGAGTTCGTGCGCTTCGACAGCGACGTGGGGGAGTACCGGGCGGTGACGGAGCT AGGGCGGCTGTGCGCGAGTCTGGAACAGCCAGAAGGACATCCTGGAGGACAGGCGGGG CCAGGTGGACACCGTGTGCAGACACAACACTACGGGGTTGGTGAGAGCTTCACAGTGACGG GCGAGTCCATCCTGAGGTGACTGTGTATCCTGCCAAGACTCAGCCCCTGCAGCACCAAA CCTCTGGTCTGCTCTGTGAGTGGTTTCTATCCAGGCAGCATTGAAGTCAGGTGGTTCCG GAACGGCCAGGAAGAGAAGGCTGGGGTGGTGTCCACAGGCCTGATCCAGAATGGAGACTG GACCTTCCAGACCCTGGTGTGATGTTGAAACAGTTCCTCGGAGTGGAGAAGTTTACACCTG CCAAGTGGAGCACCAAGTGTGATGAGCCCTCTCACAGTGAATGGAGAGCACGGTCTGA ATCTGCACAGAGCAAGATGCTGAGTGGAGTCCGGGGCTTTGTGCTGGGCCTGCTTCTCT GGGGCCGGGTTGGTCATCTACTTCAGGAATCAGAAAGACTCTGGACTTCACCAACAGG ATCCTGAGCTG
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	BC001023
<b>Insert Size:</b>	1212 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li> </ol>
<b>RefSeq:</b>	<a href="#">BC001023.2</a> , <a href="#">AAH01023.1</a>
<b>RefSeq Size:</b>	1203 bp
<b>RefSeq ORF:</b>	798 bp
<b>Locus ID:</b>	3125
<b>Cytogenetics:</b>	6p21.3
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Allograft rejection, Antigen processing and presentation, Asthma, Autoimmune thyroid disease, Cell adhesion molecules (CAMs), Graft-versus-host disease, Hematopoietic cell lineage, Systemic lupus erythematosus, Type I diabetes mellitus, Viral myocarditis

**Gene Summary:**

HLA-DRB3 belongs to the HLA class II beta chain paralogues. This class II molecule is a heterodimer consisting of an alpha (DRA) and a beta (DRB) chain, both anchored in the membrane. It plays a central role in the immune system by presenting peptides derived from extracellular proteins. Class II molecules are expressed in antigen presenting cells. The beta chain is approximately 26-28 kDa and its gene contains 6 exons. Exon one encodes the leader peptide, exons 2 and 3 encode the two extracellular domains, exon 4 encodes the transmembrane domain and exon 5 encodes the cytoplasmic tail. Within the DR molecule the beta chain contains all the polymorphisms specifying the peptide binding specificities. Typing for these polymorphisms is routinely done for bone marrow and kidney transplantation. There are multiple pseudogenes of this gene. [provided by RefSeq, Feb 2020]