

## Product datasheet for **SC126294**

### HLA (BC033827) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HLA (BC033827) Human Untagged Clone
Tag:	Tag Free
Symbol:	HLA
Synonyms:	HLA DRB1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for BC033827 edited  
 CTTGCCTGCTTCTCTGGCCCTGGTCTCTGCTGTTCTCCAGCATGGTGTGTCTGAAGCT  
 CCCTGGAGGCTCCTGCATGACAGCGCTGACAGTGACACTGATGGTGTGAGCTCCCCACT  
 GGCTTTGTCTGGGGACACCCGACCACGTTTCTGTGGCAGCCTAAGAGGGAGTGTCATTT  
 CTTCAATGGGACGGAGCGGGTTCCTGGACAGATACTTCTATAACCAGGAGGAGTC  
 CGTGCGCTTCGACAGCGACGTGGGGAGTTCGGGCGGTGACGGAGCTGGGGCGGCTGA  
 CGCTGAGTACTGGAACAGCCAGAAGGACATCCTGGAGCAGGCGGGCCGCGGTGGACAC  
 CTAAGTGACTGTATATCCTTCAAAGACCCAGCCCTGCAGCACCACAACCTCCTGGTCTG  
 CTCTGTGAGTGGTTTCTATCCAGGCAGCATTGAAGTCAGGTGGTTCCTGAACGGCCAGGA  
 AGAGAAGGCTGGGATGGTGTCCACAGGCCTGATCCAGAATGGAGACTGGACCTTCCAGAC  
 CCTGGTGTGCTGAAACAGTTCCTCGAAGTGGAGAGGTTTACACCTGCCAAGTGGAGCA  
 CCCAAGCGTGACAAGCCCTCTCACAGTGAATGGAGAGCACGGTCTGAATCTGCACAGAG  
 CAAGATGCTGAGTGGAGTCGGGGCTTTGTGCTGGGCCTGCTCTTCTGGGGCCGGCT  
 GTTCATCTACTTCAGGAATCAGAAAGGACACTCTGGACTTCAGCCAACAGGATTCCTGAG  
 CTGAAATGCAGATGACCACATTCAGGAAGAATTTCTGCCCCGGCTTTGCAGGATGAAA  
 AGCTTTCTGCTTGGCAGTTATTTCCACAAGAGAGGGCTTTCTCAGGACCTGGTTGCT  
 ACTGGTTCGGCAACTGCAGAAAAATGCTCCCTTGTGGCTTCCTCAGCTCCTGCCCTTGG  
 CCTGAAGTCCCAGCATTGATGGCAGCGCCTCATCTTCAACTTTTGTGCTCCCTTTGCCT  
 AAACCGTATGGCCTCCCGTGCATCTGTATTACCCCTGTATGACAAACACATTACATTATT  
 AAATGTTTCTCAAAGATGGAGTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for BC033827 unedited AGGATTTTGTAAACGACTCACTATAGGGCGGACCGCGAATCAAATCTGGTACCGGTCCG GAATTCGGGATACTTGCTGCTTCTCTGGCCCTGGTCTGTCTGTCTCCAGCATG GTGTGTCTGAAGTCCCTGGAGGCTCCTGCATGACAGCGCTGACAGTGACACTGATGGTG CTGAGTCCCCACTGGCTTTGTCTGGGGACACCCGACCACGTTTCCTGTGGCAGCCTAAG AGGGAGTGCATTTCTCAATGGGACGGAGCGGGTGCAGTTCTGGACAGATACTTCTAT AACCAGGAGGAGTCCGTGCGCTTCGACAGCGACGTGGGGAGTTCCGGGCGGTGACGGAG CTGGGGCGGCTGACGCTGAGTACTGGAACAGCCAGAAGGACATCCTGGAGCAGGCGCGG GCCGCGGTGGACACCTACTGCAGACACAACCTACGGGGTTGTGGAGAGCTTACAGTGCAG CGGCGAGTCCAACCTAAGGTGACTGTATATCCTTCAAAGACCCAGCCCCTGCAGCACCAC AACCTCTGGTCTGCTCTGTGAGTGGTTTCTATCCAGGCAGCATTGAAGTCAGGTGGTTC CTGAACGGCCAGGAAGAGAAGNGCTGGATGGTGTCCACAGGCCTGATCCAGAATGGAGAC TGGACNTCCAGACCCTTGTGATGCTGGAACAGTTNCTCGAAGTGGAGAGGTTTACACC TTGCAAGTGGAGCCACCCAGCGTGACAAGCCTCTCACAGTGAATGAGAGCANCCTGTA ATCTGCACAGAGCAAGATGCTGANTGGAATCGGGGGCTTTGGGCTGGGGCTGCTCTTTCT TTGGGCCCGCCTGGTCACTACCTTCAGGATCAAAAAGGAAACTTTGGACTTCAGCCAC AAGGATTCCTGAGCTGAAATGCCAGATAACCCCTCCAAGGGAAAACCTTCTGGCCCGG TTTTGCAGGATGAA
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	BC033827
<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="#">BC033827.1</a> , <a href="#">AAH33827.1</a>
<b>RefSeq Size:</b>	1229 bp
<b>RefSeq ORF:</b>	798 bp
<b>Locus ID:</b>	3123
<b>Cytogenetics:</b>	6p21.32
<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-DRB1 belongs to the HLA class II beta chain paralogs. The class II molecule is a heterodimer consisting of an alpha (DRA) and a beta chain (DRB), 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. It is encoded by 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. Hundreds of DRB1 alleles have been described and some alleles have increased frequencies associated with certain diseases or conditions. For example, DRB1\*1302 has been related to acute and chronic hepatitis B virus persistence. There are multiple pseudogenes of this gene. [provided by RefSeq, Jul 2020]