

## Product datasheet for **SC126017**

### HLA (BC007920) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** HLA (BC007920) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** HLA  
**Synonyms:** DRB1; DRw10; HLA-DR1B; HLA-DRB; SS1  
**Vector:** pCMV6-XL5  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**Cell Selection:** None  
**Fully Sequenced ORF:** >OriGene sequence for BC007920 edited

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AGACTTGCTGCTCTGGCCCTGGTCTGCTGTTCTCCAGCATGGTGTGTGAG
GCTCCCTGGAGGCTCCTGCATGGCAGTTCTGACAGTGACACTGATGGTGTGAGCTCCC
ACTGGCTTTGGCTGGGGACACCAGACCAGTTTCTTGGAGTACTCTACGTCTGAGTGCA
TTTCTTCAATGGGACGGAGCGGGTGCAGTTCTGGACAGATACTCCATAACCAGGAGGA
GAACGTGCGCTTCGACAGCGACGTGGGGAGTTCCGGGCGGTGACGGAGCTGGGGCGCC
TGATGCCGAGTACTGGAACAGCCAGAAGGACATCCTGGAAGACGAGCGGGCCGGTGA
CACCTACTGCAGACAACTACGGGTTGGTGAGAGCTTCACAGTGCAGCGGCGAGTCCA
TCCTAAGGTGACTGTGTATCCTTCAAAGACCCAGCCCTGCAGCACCACAACCTCCTGGT
CTGTTCTGTGAGTGGTTTCTATCCAGGCAGCATTGAAAGTCAAGTGGTTCGGAATGGCCA
GGAAGAGAAGACTGGGGTGGTGTCCACAGGCCTGATCCACAATGGAGACTGGACCTCCA
GACCCTGGTGATGCTGGAAACAGTTCTCGGAGTGGAGAGGTTTACACCTGCCAAGTGA
GCACCAAGCGTGACAAGCCCTCTCACAGTGGAAATGGAGAGCACGGTCTGAATCTGCACA
GAGCAAGATGCTGAGTGGAGTCGGGGCTTTGTGCTGGCCTGCTCTTCTTGGGGCCGG
GCTGTTTCACTACTTCAGGAATCAGAAAGGACACTCTGGACTTCAGCCAAGAGGATTCT
GAGCTGAAGTGCAGATGACACATTCAAAGAAGAAGTCTGCCCCAGCTTTCAGGATGA
AAAGCTTTCCTCCTGGCTGTTATCTTCCACAAGAGAGGGCTTCTCAGGACCTGGTTG
CTACTGGTTCAGCAACTGCAGAAAATGTCTCCCTTGTGGCTTCCTCAGCTCCTGTTCTT
GGCCTGAAGCCCCACAGCTTTGATGGCAGCGCCTCATCTTCAACTTTTGTGCTCCCTTT
GCCTAAACCCTATGGCCTCCTGTGCATCTGTACTACCCTGTACCACAAACACATTACAT
TATTAATGTTTCTCAAAGATGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAA
  
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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for BC007920 unedited NGTCAGGTCATTATTTGTATACGACTCATATAGGCGGCCGCGTAATTCGCACGAGNAGAC TTGCTGCTGCTCGGCCCTGGTCCTGTCTCCAGCATGGTGTGTCTGAGGCTC CCTGGAGGCTCCTGCATGGCAGTTCTGACAGTGACACTGATGGTGTGAGCTCCCCACTG GCTTTGGCTGGGGACACCAGACCAGTTTCTTGGAGTACTCTACGTCTGAGTGTCATTTCT TTCAATGGGACGGAGCGGGTCCGGTTCTGGACAGATACTTCCATAACCAGGAGGAGAAC GTGCGCTTCGACAGCGACGTGGGGGAGTCCGGGCGGTGACGGAGCTGGGGCGGCCTGAT GCCGAGTACTGGAACAGCCAGAAGGACATCCTGGAAGACGAGCGGCCGCGGTGGACACC TACTGCAGACACAACCTACGGGGTTGGTGAGAGCTTACAGTGCAGCGCGGAGTCCATCCT AAGGTGACTGTGTATCCTTCAAAGACCCAGCCCCTGCAGCACCACAACCTCCTGGTCTGT TCTGTGAGTGGTTTCTATCCAGGCAGCATTGAAGTCAAGTGGTTCGGAATGGCCAGGAA GAGAAGACTGGGGTGGTCCACAGGCCTGATCCACAATGGAGACTGGACCTTCCAGACC CTGGTGTGCTGGAACAGTTTCTCGGAGTGGAGAGGTTTACACCTGCCAAGTGGAGCAC CCAAGCGTGACAAGCCCTCTCACAGTGAATGGAGAGCACGGTCTGAATCTGCACAGAGC AAGATGCTGAGTGGAGTCCGGGCTTTGTGCTGGGCTGCTCTTCTTGGCCGGGCTGT TCATCTTTCAGGATCAAAAAGAACTCTGGACTTCACCAGGAGATCCTG
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	BC007920
<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>	<u>BC007920.2, AAH07920.1</u>
<b>RefSeq Size:</b>	1218 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]