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Product datasheet for SC112463

HLA-DRB3 (NM_022555) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HLA-DRB3 (NM_022555) Human Untagged Clone
Tag:	Tag Free
Symbol:	HLA-DRB3
Synonyms:	DRB3; HLA-DPB1; HLA-DR1B; HLA-DR3B; HLA-DRB3*
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

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>OriGene ORF within SC112463 sequence for NM_022555 edited (data generated by NextGen Sequencing)
ATGGTGTGTCTGAAGCTCCCTGGAGGCTCCAGCTTGGCAGCGTTGACAGTGACACTGATG
GTGCTGAGCTCCCGACTGGCTTTCGCTGGGGACACCCGACCACGTTTCTTGGAGCTGCTT
AAGTCTGAGTGTCATTTCTTCAATGGGACGGAGCGGGTGCGGTTCCTGGAGAGACACTTC
CATAACCAGGAGGAGTACNTGCGCTTCGACAGCGACGTGGGGGAGTACCGGGCGGTGAGG
GAGCTGGGGCGGCCTGNNGCCGAGTACTGGAACAGCCAGAAGGACCTCCTGGAGCAGAAG
CGGGGCCAGGTGGACAATTACTGCAGACACAACTACGGGGTTGGTGAGAGCTTCACAGTG
CAGCGGCGAGTCCATCCTCAGGTGACTGTGTATCCTGCAAAGACCCAGCCCCTGCAGCAC
CACAACCTCCTGGTCTGCTCTGTGAGTGGTTTCTATCCAGGCAGCATTGAAGTCAGGTGG
TTCCGGAACGGCCAGGAAGAGAAGGCTGGGGTGGTGTCCACGGGCCTGATCCAGAATGGA
GACTGGACCTTCCAGACCCTGGTGATGCTAGAAACAGTTCCTCGGAGTGGAGAGGTTTAC
ACCTGCCAAGTGGAGCACCCAAGCGTAACGAGCCCTCTCACAGTGGAATGGAGTGCACGG
TCTGAATCTGCACAGAGCAAGATGCTGAGTGGAGTCGGGGGCTTTGTGCTGGGCCTGCTC
TTCCTTGGGGCCGGGCTGTTCATCTACTTCAGGAATCAGAAAGGACACTCTGGACTTCAG
CCAACAGGATTCCTGAGCTGA

Clone variation with respect to NM_022555.3
119 g=>t;164 a=>t;171 c=>g;175 t=>c;197 t=>a;199 c=>n;239 c=>g;257 t=>n;258 c=>n;266
c=>a;308 g=>a;603 t=>c;634 g=>c;654 a=>t
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5' Read Nucleotide Sequence:

```
>OriGene 5' read for NM_022555 unedited
NNNNGGTTCGAATTTGTATACGACTCATATAGGCGGCCGCGNAATTCGCACGAGGGAGAC
TTGCCTGCTCCTCTGGCCCCTGGTCCTGTCCTCTTCTCCAGCATGGTGTGTCTGAAGCTC
CCTGGAGGCTCCAGCTTGGCAGCGTTGACAGTGACACTGATGGTGCTGAGCTCCCGACTG
GCTTTCGCTGGGGACACCCGACCACGTTTCTTGGAGCTGCTTAAGTCTGAGTGTCATTTC
TTCAATGGGACGGAGCGGGTGCGGTTCCTGGAGAGACACTTCCATAACCAGGAGGAGTAC
GCGCGCTTCGACAGCGACGTGGGGGAGTACCGGGCGGTGAGGGAGCTGGGGCGGCCTGAT
GCCGAGTACTGGAACAGCCAGAAGGACCTCCTGGAGCAGAAGCGGGGCCAGGTGGACAAT
TACTGCAGACACAACTACGGGGTTGGTGAGAGCTTCACAGTGCAGCGGCGAGTCCATCCT
CAGGTGACTGTGTATCCTGCAAAGACCCAGCCCCTGCAGCACCACAACCTCCTGGTCTGC
TCTGTGAGTGGTTTCTATCCAGGCAGCATTGAAGTCAGGTGGTTCCGGAACGGCCAGGAA
GAGAAGGCTGGNGGTGGTGTCCACGGGCCTGATCCAGAATGGAGACTGGACCTTCCAGAC
CCTGGTGATGCTAGAAACAGTTCCTCGGAGGGGNAGAAGGTTTTACACCTGCCAAGTGGA
GCACCCAAGCGTAACGAGCCCTCTCAAGTGGAATGGAGTGCACGGGTCTGATCTGCACAG
AGCAGATGCTGAGTGGAGTTCGGGGGCTTTGTGCTGGGCCTGCTCTTCCTGGNGCCCGGG
CTGNTCATCTACTTCAGGAATCAGAAGACACTCTGGACTTAGCCACAGGATTCTGANCTC
```

3' Read Nucleotide Sequence:

```
>OriGene 3' read for NM_022555 unedited
GCTATGGACCGCGGCACGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTGATATTTAA
CTCCATCTTTGAGAAAATTTAATAATGTAATGTGTTTGTGGTACAGGGTGAGTACAGATG
CACAGGAGGCCATAGGGTTTAGGCAAAGGGGAGCACAAAAGTTGAAGATGAGGCGCTGCC
ATCAATGCTGGGACTTCAGGCCAAGGGCAGGAACTGAGGAAGCCACAAGGGAGGACATTT
TCTGCAGTTGCTGAACCAGTAGCAACTAGGTCCTGAGAAAGCCCTCTCTCGTGGAAGAAT
AACAGCCAGGCGGGAAAGCTTTTCATCCTGCAAAGCTGGGGAAGAAGATTCTTCCTTAAA
TTGTCATCTGCACTTCAGCTCAAGAATCCTGTTGGCTGAAGTCCAGAGTGTCCTTTCTGA
TTCCTGAAGTAGATGAACAGCCCGGCCCCAAGGAAGAGCAGGCCCAGCACAAAGCCCCCG
ACTCCACTCAGCATCTTGCTCTGTGCAGATTCAGACCGTGCACTCCATTCCACTGTGAGA
GGGCTCGTTACGCTTGGGTGCTCCACTTGGCAGGTGTAAACCTCTCCACTCCGAGGAACT
GTTTCTAGCATCACCAGGGTCTGGAAGGTCCAGTCTCCATTCTGGATCAGGCCCGTGGAC
ACCACCCCAGCCTTCTCTTCCTGGCCGTTCCGGAACCACCTGACTTCAATGCTGCCTGGA
TAGAAACCACTCACAGAGCAAACCANGAAGTTGTGGTGCTGCAGGGGCTGGGTCTTTGCA
AGATACACAGTCACCCTGAGATGGACTCGCCGCTGCACTGTGAAGCTCTCACCAACCCCG
TAGNTGTGTCTGCAGTAATTTGTCCACTGGNCCCGCTTCTGCTCCAGNAGGTCCTTCGGG
CTGTTCAGTACTCGGNATTAAGCCGCCCCANTTCCTCACCGGCNGGTACTTCCCCACTGG
CTTTTGAAACCCCGTTCTTCTCCTGTTTTGGAT
```

Restriction Sites: NotI-NotI

ACCN: NM_022555

Insert Size: 1240 bp

OTI Disclaimer: 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).

Components: 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).

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Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 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.
RefSeq:	NM_022555.3, NP_072049.2
RefSeq Size:	1158 bp
RefSeq ORF:	801 bp
Locus ID:	3125
UniProt ID:	P79483
Cytogenetics:	6p21.3
Domains:	MHC_II_beta, ig, IGc1
Protein Families:	Transmembrane
Protein Pathways:	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]

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