

Product datasheet for **RG203646**

HLA-DRB5 (NM_002125) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: HLA-DRB5 (NM_002125) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: HLA-DRB5
Synonyms: HLA-DRB5*
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG203646 representing NM_002125
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTGTGTCTGAAGCTCCCTGGAGTTCCTACATGGCAAAGCTGACAGTGACACTGATGGTGCTGAGCT
CCCCACTGGCTTTGGCTGGGGACACCCGACCACGTTTCTTGCAGCAGGATAAGTATGAGTGTCAATTCCT
CAACGGGACGGAGCGGGTGGCTTCTGCACAGAGACATCTATAACCAAGAGGAGGACTTGGCTTCGAC
AGCGACGTGGGGAGTACCGGGCGGTGACGGAGCTGGGGCGCCTGACGCTGAGTACTGGAACAGCCAGA
AGGACTTCTGGAAGACAGGCGCGCCGGTGGACACCTACTGCAGACACAACACTACGGGGTTGGTGAGAG
CTTCACAGTGCAGCGCGAGTTGAGCCTAAGGTGACTGTGTATCCTGCAAGGACCCAGACCTGCAGCAC
CACAACCTCCTGGTCTGCTCTGTGAATGTTTTCTATCCAGGCAGCATTGAAGTCAGGTGGTTCGGAAACA
GCCAGGAAGAGAAGGCTGGGGTGGTGTCCACAGGCCTGATTCAGAATGGAGACTGGACCTTCAGACCTT
GGTGATGCTGGAAACAGTTCCTCGAAGTGGAGAGGTTTACACCTGCCAAGTGGAGCACCAAGCGTGACG
AGCCCTCTCACAGTGGAAATGGAGAGCACAGTCTGAATCTGCACAGAGCAAGATGCTGAGTGGAGTCGGGG
GCTTTGTGCTGGGCTGCTCTTCTTGGGGCCGGCTATTCATCTACTTCAAGAATCAGAAAGGGCACTC
TGGACTTACCCAACAGGACTCGTGAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG203646 representing NM_002125
 Red=Cloning site Green=Tags(s)

MVCLKLPGGSYMAKLTVTLMLVSSPLALAGDTRPRFLQQDKYECHFFNGTERTVRFVLRDIYNQEEDLRFD
 SDVGEYRAVTELGPRDAEYWNSQKDFLEDRRAAVDTYCRHNYGVGESFTVQRRVEPKVTVPARTQTLQH
 HNLLVCSVNGFYPGSIEVRWFRNSQEEKAGVVSTGLIQNGDWFQTLVMLETVPRSGEVYTCQVEHPSVT
 SPLTVEWRAQSESAQSKMLSGVGGFVLGLLFLGAGLFIYFKNQKGHSLHPTGLVS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002125

ORF Size: 798 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

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_002125.4](#)

RefSeq Size: 1171 bp

RefSeq ORF: 801 bp

Locus ID: 3127

UniProt ID: [Q30154](#)

Cytogenetics: 6p21.32

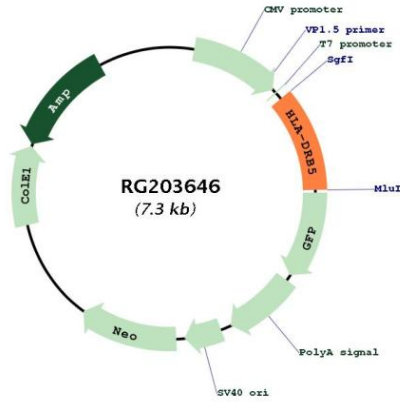
Domains: MHC_II_beta, ig, IGc1

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-DRB5 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]

Product images:



Circular map for RG203646