

Product datasheet for **RG202743**

HLA-DRB4 (NM_021983) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | HLA-DRB4 (NM_021983) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | HLA-DRB4 |
| Synonyms: | DR4; DRB4; HLA-DR4B; HLA-DRB4* |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| ORF Nucleotide Sequence: | >RG202743 representing NM_021983 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTGTGTCTGAAGCTCCCTGGAGGCTCCTGTATGGCAGCGCTGACAGTGACATTGACGGTGCTGAGCT
CCCCACTGGCTTTGGCTGGGGACACCCAACCACGTTTCTTGGAGCAGGCTAAGTGTGAGTGTCAATTCCT
CAATGGGACGGAGCGAGTGTGGAACCTGATCAGATACATCTATAACCAAGAGGAGTACGCGCGCTACAAC
AGTGACCTGGGGAGTACCAGGCGGTGACGGAGCTGGGGCGCCTGACGCTGAGTACTGGAACAGCCAGA
AGGACCTCCTGGAGCGGAGGGCGGCCGAGGTGGACACCTACTGCAGATACTACGAGGTTGTGGAGAG
CTTCACAGTGCAGCGCGAGTCCAACCTAAGGTGACTGTGTATCCTTCAAGACCCAGCCCTGCAGCAC
CACAACCTCCTGGTCTGCTCTGTGAATGTTTTCTATCCAGGCAGCATTGAAGTCAGTGGTTCGGAACG
GCCAGGAAGAGAAGGCTGGGGTGGTGTCCACAGGCCTGATCCAGAATGGAGACTGGACCTCCAGACCTT
GGTGTGCTGGAAACAGTTCTCGGAGTGGAGAGGTTTACACCTGCCAAGTGGAGCATCCAAGCATGATG
AGCCCTCTACGGTGAATGGAGTGCACGGTCTGAATCTGCACAGAGCAAGATGCTGAGTGGAGTGGGG
GCTTTGTGCTGGGCTGCTTCTTGGACAGGGCTGTTTCATCTACTTCAGGAATCAGAAAGGACACTC
TGGACTCAGCCAACAGGACTCTTGAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG202743 representing NM_021983
 Red=Cloning site Green=Tags(s)

MVCLKLPGGSCMAALTVTLTVLSSPLALAGDTQPRFLEQAKCECHFLNGTERVWNLIRYIYNQEEYARYN
 SDLGEYQAVTELGRPDAEYWNSQKDLLERRRAEVDTYCRYNYGVVESFTVQRRVQPKVTVPYPSKTQPLQH
 HNLLVCSVNGFYPGSIEVRWFRNGQEEKAGVVSTGLIQNGDWFQTLVMLETVPRSGEVYTCQVEHPSMM
 SPLTVQWSARSESAQSKMLSGVGGFVLGLLFLGTGLFIYFRNQKGHSGLQPTGLLS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_021983

ORF Size: 798 bp

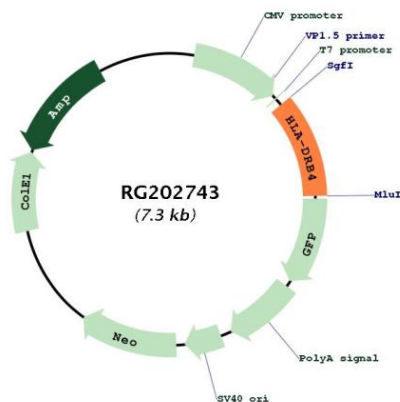
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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: | <ol style="list-style-type: none">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_021983.4 , NP_068818.4 |
| RefSeq Size: | 1193 bp |
| RefSeq ORF: | 801 bp |
| Locus ID: | 3126 |
| UniProt ID: | P13762 |
| 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-DRB4 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 RG202743