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Product datasheet for RC210732

HLA-DRB3 (NM_022555) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HLA-DRB3 (NM_022555) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HLA-DRB3
Synonyms:	DRB3; HLA-DPB1; HLA-DR1B; HLA-DR3B; HLA-DRB3*
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC210732 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGTGTGTCTGAAGCTCCCTGGAGGCTCCAGCTTGGCAGCGTTGACAGTGACACTGATGGTGCTGAGCT
CCCGACTGGCTTTCGCTGGGGACACCCGACCACGTTTCTTGGAGCTGCTTAAGTCTGAGTGTCATTTCTT
CAATGGGACGGAGCGGGTGCGGTTCCTGGAGAGACACTTCCATAACCAGGAGGAGTACGCGCGCTTCGAC
AGCGACGTGGGGGAGTACCGGGCGGTGAGGGAGCTGGGGCGGCCTGATGCCGAGTACTGGAACAGCCAGA
AGGACCTCCTGGAGCAGAAGCGGGGCCAGGTGGACAATTACTGCAGACACAACTACGGGGTTGGTGAGAG
CTTCACAGTGCAGCGGCGAGTCCATCCTCAGGTGACTGTGTATCCTGCAAAGACCCAGCCCCTGCAGCAC
CACAACCTCCTGGTCTGCTCTGTGAGTGGTTTCTATCCAGGCAGCATTGAAGTCAGGTGGTTCCGGAACG
GCCAGGAAGAGAAGGCTGGGGTGGTGTCCACGGGCCTGATCCAGAATGGAGACTGGACCTTCCAGACCCT
GGTGATGCTAGAAACAGTTCCTCGGAGTGGAGAGGTTTACACCTGCCAAGTGGAGCACCCAAGCGTAACG
AGCCCTCTCACAGTGGAATGGAGTGCACGGTCTGAATCTGCACAGAGCAAGATGCTGAGTGGAGTCGGGG
GCTTTGTGCTGGGCCTGCTCTTCCTTGGGGCCGGGCTGTTCATCTACTTCAGGAATCAGAAAGGACACTC
TGGACTTCAGCCAACAGGATTCCTGAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC210732 protein sequence
Red=Cloning site Green=Tags(s)

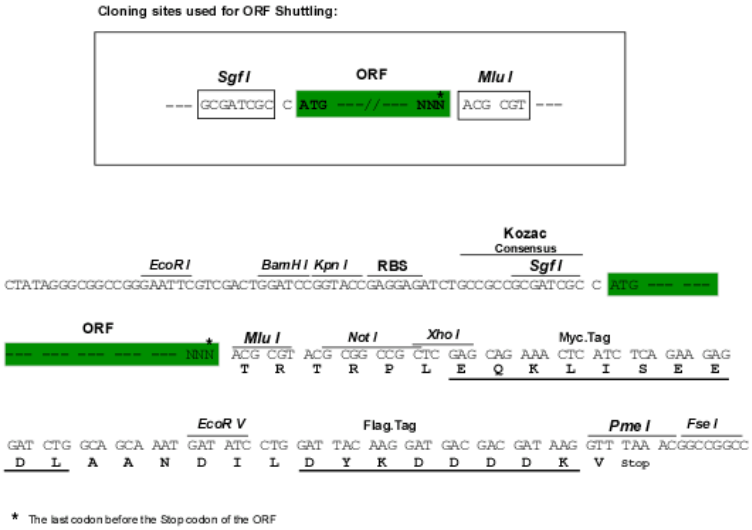
MVCLKLPGGSSLAALTVTLMVLSSRLAFAGDTRPRFLELLKSECHFFNGTERVRFLERHFHNQEEYARFD
SDVGEYRAVRELGRPDAEYWNSQKDLLEQKRGQVDNYCRHNYGVGESFTVQRRVHPQVTVYPAKTQPLQH
HNLLVCSVSGFYPGSIEVRWFRNGQEEKAGVVSTGLIQNGDWTFQTLVMLETVPRSGEVYTCQVEHPSVT
SPLTVEWSARSESAQSKMLSGVGGFVLGLLFLGAGLFIYFRNQKGHSGLQPTGFLS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6771_b05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_022555

ORF Size: 798 bp

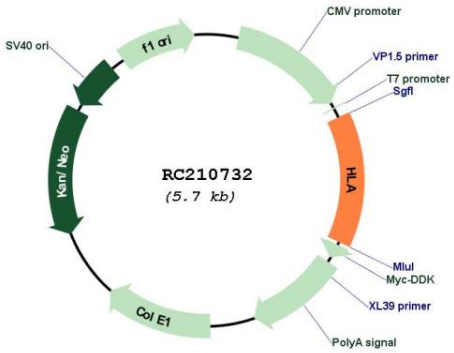
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

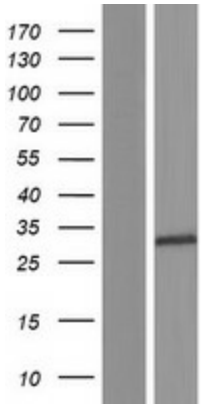
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_022555.1
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
MW:	29.9 kDa
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]

Product images:



Circular map for RC210732



Western blot validation of overexpression lysate (Cat# [LY411623]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210732 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).