

Product datasheet for **RG209920**

HLA-DRA (NM_019111) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HLA-DRA (NM_019111) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HLA-DRA
Synonyms:	HLA-DRA1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG209920 representing NM_019111 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCATAAGTGGAGTCCCTGTGCTAGGATTTTTTCATCATAGCTGTGCTGATGAGCGCTCAGGAATCAT
GGGCTATCAAAGAAGAACATGTGATCATCCAGGCCGAGTTCTATCTGAATCCTGACCAATCAGGCGAGTT
TATGTTTGACTTTGATGGTGATGAGATTTCCATGTGGATATGGCAAAGAAGGAGACGGTCTGGCGGCTT
GAAGAATTTGGACGATTTGCCAGCTTTGAGGCTCAAGGTGCATTGGCCAACATAGCTGTGGACAAAGCCA
ACCTGGAATCATGACAAAGCGCTCCAATACTCCGATCACCATGTACCTCCAGAGGTAACCTGTGCT
CACGAACAGCCCTGTGGAAGTGTGAGAGAGCCCAAGTCCCTCATCTGTTTCATCGACAAGTTCACCCACCA
GTGGTCAATGTCACGTGGCTTCGAAATGAAAACCTGTACCACAGGAGTGTGAGAGACAGTCTTCTCTGC
CCAGGGAAGACCACCTTTCCGCAAGTTCACCTATCTCCCTTCTGCCCTCAACTGAGGACGTTTACGA
CTGCAGGGTGGAGCACTGGGGCTTGGATGAGCCTCTTCTCAAGCACTGGGAGTTTGATGCTCCAAGCCCT
CTCCCAGAGACTACAGAGAACGTGGTGTGTGCCCTGGGCTGACTGTGGGTCTGGTGGGCATCATTATTG
GGACCATCTTCATCATCAAGGGAGTGGCAAAGAATGCAGCAGAACCGAGGGGGCCTCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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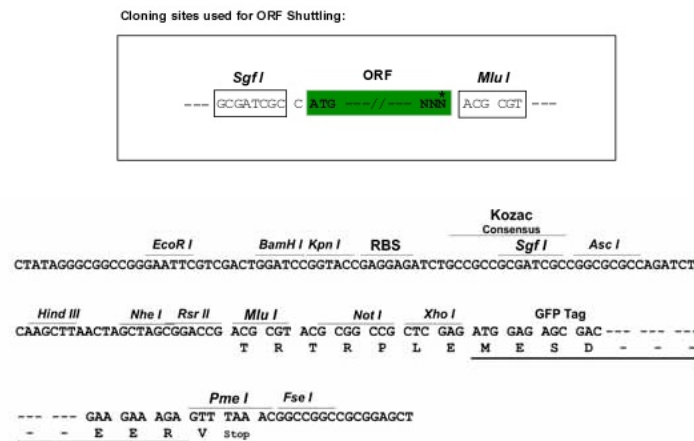
Protein Sequence: >RG209920 representing NM_019111
 Red=Cloning site Green=Tags(s)

MAISGVPVLGFFIIAVLMSAQESWAIKEEHVIIQAEFYLNPDQSGEFMFDFDGDGEIFHVDMAKKETVWRL
 EEFGRFASFEAQGALANIAVDKANLEIMTKRSNYTPITNVPPEVTVL TNSPVELREPNVLCFIDKF TTP
 VVNVTWLRNGKPVTTGVSETVFLPREDHLFRKFHYLPFLPSTEDVYDCRVEHWGLDEPLLKHWEFDAPSP
 LPETTENVVICALGLTVGLVGIIGTIFIIKGVKRKSNAEAERRGPL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_019111

ORF Size: 762 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_019111.2](#)

RefSeq Size: 1267 bp

RefSeq ORF: 765 bp

Locus ID: 3122

UniProt ID: [P01903](#)

Cytogenetics: 6p21.32

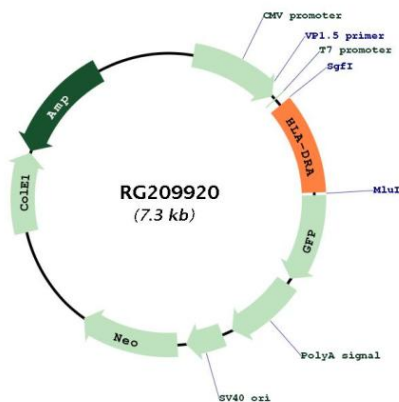
Domains: MHC_II_alpha, ig, IGc1

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-DRA is one of the HLA class II alpha chain paralogues. This class II molecule is a heterodimer consisting of an alpha and a beta chain, both anchored in the membrane. This molecule is expressed on the surface of various antigen presenting cells such as B lymphocytes, dendritic cells, and monocytes/macrophages, and plays a central role in the immune system and response by presenting peptides derived from extracellular proteins, in particular, pathogen-derived peptides to T cells. The alpha chain is approximately 33-35 kDa and its gene contains 5 exons. Exon 1 encodes the leader peptide, exons 2 and 3 encode the two extracellular domains, and exon 4 encodes the transmembrane domain and the cytoplasmic tail. DRA does not have polymorphisms in the peptide binding part and acts as the sole alpha chain for DRB1, DRB3, DRB4 and DRB5. [provided by RefSeq, Aug 2020]

Product images:



Circular map for RG209920