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Product datasheet for RC209921

HLADQA1 (HLA-DQA1) (NM_002122) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HLADQA1 (HLA-DQA1) (NM_002122) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HLADQA1
Synonyms:	CELIAC1; DQ-A1; DQA1; HLA-DQA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC209921 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGATCCTAAACAAAGCTCTGCTGCTGGGGGCCCTCGCTCTGACCACCGTGATGAGCCCCTGTGGAGGTG
AAGACATTGTGGCTGACCATGTTGCCTCTTGTGGTGTAAACTTGTACCAGTTTTACGGTCCCTCTGGCCA
GTTCACCCATGAATTTGATGGAGATGAGCAGTTCTACGTGGACCTGGAGAAGAAGGAGACTGCCTGGCGG
TGGCCTGAGTTCAGCAAATTTGGAGGTTTTGACCCGCAGGGTGCACTGAGAAACATGGCTGTGGCAAAAC
ACAACTTGAACATCATGATTAAACGCTACAACTCTACCGCTGCTACCAATGAGGTTCCTGAGGTCACAGT
GTTTTCCAAGTCTCCCGTGACACTGGGTCAGCCCAACACCCTCATCTGTCTGGACAACATCTTTCCTCCT
GTGGTCAACATCACATGGCTGAGCAATGGGCACGCAGTCACAGAAGGTGTTTCTGAGACCAGCTTCCTCT
CCAAGAGTGATCATTCCTTCTTCAAGATCAGTTACCTCACCTTCCTCCCTTCTGCTGATGAGATTTATGA
CTGCAAGGTGGAGCACTGGGGCCTGGACCAGCCTCTTCTGAAACACTGGGAGCCTGAGATTCCAGCCCCT
ATGTCAGAGCTCACAGAGACTGTGGTCTGTGCCCTGGGGTTGTCTGTGGGCCTCGTGGGCATTGTGGTGG
GCACTGTCTTCATCATCCAAGGCCTGCGTTCAGTTGGTGCTTCCAGACACCAAGGGCCCTTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

View online »

Protein Sequence:

>RC209921 protein sequence
Red=Cloning site Green=Tags(s)

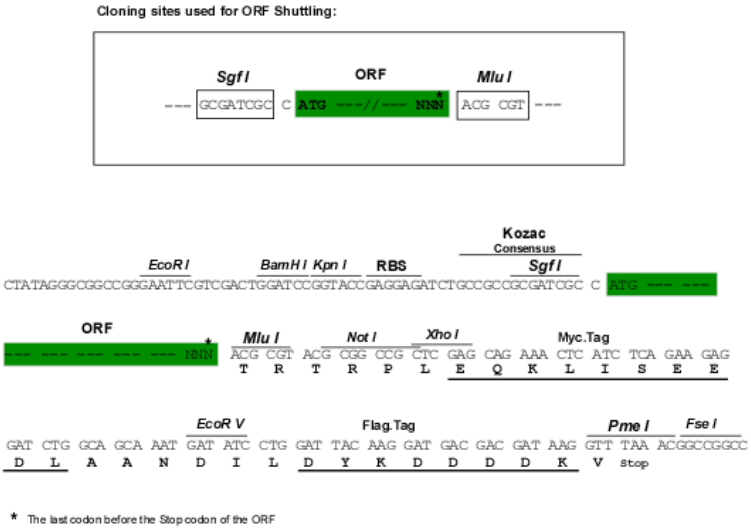
MILNKALLLGALALTTVMSPCGGEDIVADHVASCGVNLYQFYGPSGQFTHEFDGDEQFYVDLEKKETAWR
WPEFSKFGGFDPQGALRNMAVAKHNLNIMIKRYNSTAATNEVPEVTVFSKSPVTLGQPNTLICLDNIFPP
VVNITWLSNGHAVTEGVSETSFLSKSDHSFFKISYLTFLPSADEIYDCKVEHWGLDQPLLKHWEPEIPAP
MSELTETVVCALGLSVGLVGIVVGTVFIIQGLRSVGASRHQGPL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6087_g08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002122

ORF Size: 762 bp

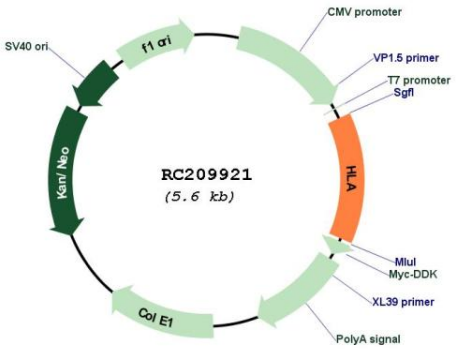
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

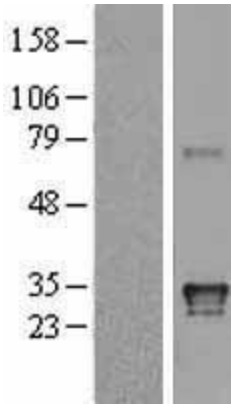
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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 Size:	1542 bp
RefSeq ORF:	768 bp
Locus ID:	3117
UniProt ID:	P01909
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, Systemic lupus erythematosus, Type I diabetes mellitus, Viral myocarditis
MW:	27.8 kDa
Gene Summary:	HLA-DQA1 belongs to the HLA class II alpha chain paralogues. The class II molecule is a heterodimer consisting of an alpha (DQA) and a beta chain (DQB), 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 (APC: B Lymphocytes, dendritic cells, macrophages). The alpha chain is approximately 33-35 kDa. It is encoded by 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. Within the DQ molecule both the alpha chain and the beta chain contain the polymorphisms specifying the peptide binding specificities, resulting in up to four different molecules. Typing for these polymorphisms is routinely done for bone marrow transplantation. [provided by RefSeq, Jul 2008]

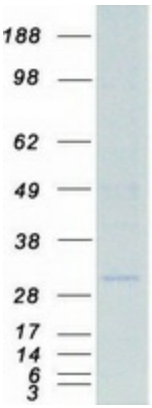
Product images:



Circular map for RC209921



Western blot validation of overexpression lysate (Cat# [LY400774]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209921 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HLA-DQA1 protein (Cat# [TP309921]). The protein was produced from HEK293T cells transfected with HLA-DQA1 cDNA clone (Cat# RC209921) using MegaTran 2.0 (Cat# [TT210002]).