

Product datasheet for RC215902

HLA-DQB1 (NM_002123) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HLA-DQB1 (NM_002123) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HLA-DQB1
Synonyms:	CELIAC1; HLA-DQB; IDDM1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC215902 representing NM_002123 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGTCTTGAAGAAGGCTTTGCGGATCCCCGGAGACCTTCGGGTAGCAACTGTCACCTTGATGCTGGCGA
TCCTGAGCTCCTCACTGGCTGAGGGCAGAGACTCTCCCGAGGATTCGTGTACCAGTTTAAGGGCCTGTG
CTACTTCACCAACGGGACGGAGCGGTGCGGGGTGTGACCAGACACATCTATAACCGAGAGGAGTACGTG
CGCTTCGACAGCGACGTGGGGTGTACCGGCAGTGACGCCGAGGGGCGCCTGTTGCCGAGTACTGGA
ACAGCCAGAAGGAAGTCTGGAGGGGGCCGGGCGTCGGTGGACAGGGTGTGCAGACACAACCTACGAGGT
GGCGTACCGGGATCCTGCAGAGGAGAGTGGAGCCACAGTGACCATCTCCCATCCAGGACAGAGGCC
CTCAACCACCACAACCTGCTGATCTGCTCGGTGACAGATTTCTATCCAAGCCAGATCAAAGTCCGGTGGT
TTCCGAATGATCAGGAGGAGACAGCCGGCGTTGTGTCCACCCCTCATTAGGAACGGTACTGGACCTT
CCAGATCCTGGTATGCTGGAATGACTCCCCAGCGTGGAGATGTCTACACCTGCCACGTGGAGCACCCC
AGCCTCCAGAGCCCCATACCGTGGAGTGGCGGGCTCAGTCTGAATCTGCCAGAGCAAGATGCTGAGTG
GCGTTGGAGGCTTCGTGCTGGGGCTGATCTTCTGGGCTTGGCCTTATCATCCGTCAAAGGAGTCAGAA
AGGGCTTCTGCAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC215902 representing NM_002123
Red=Cloning site Green=Tags(s)

MSWKKALRIPGDLRVATVTLMLAILSSSLAEGRDSPEDFVYQFKGLCYFTNGTERVRGVTRHIYNREEYV
 RFDSDVGVYRAVTPQGRPVAEYWNSQKEVLEGARASVDRVCRHNYEVAYRGILQRRVEPTVTIISPSRTEA
 LNHHNLLICSVTDFYPSQIKVRWFRNDQEETAGVVSTPLIRNGDWTFFQILVMLEMTPQRGDVYTCHVEHP
 SLQSPITVEWRAQSESAQSKMLSGVGGFVLGLIFLGLGLIIRQRSQKGLLH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6242_b11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002123

ORF Size: 783 bp

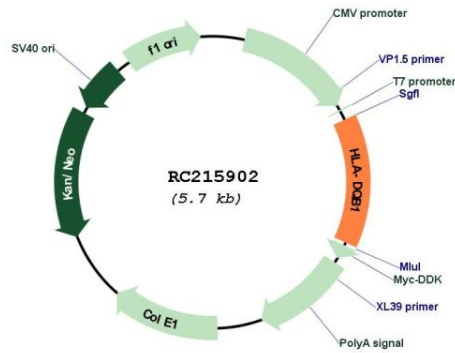
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

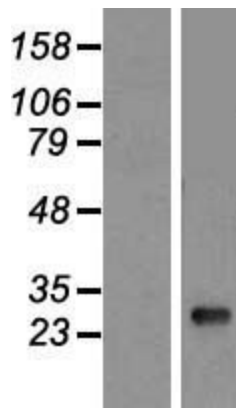
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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 Size:	1190 bp
RefSeq ORF:	786 bp
Locus ID:	3119
UniProt ID:	P01920
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, Systemic lupus erythematosus, Type I diabetes mellitus, Viral myocarditis
MW:	29.7 kDa
Gene Summary:	HLA-DQB1 belongs to the HLA class II beta chain paralogs. This 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 beta chain is approximately 26-28 kDa and it contains six exons. Exon 1 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 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. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2011]

Product images:



Circular map for RC215902



Western blot validation of overexpression lysate (Cat# [LY419518]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215902 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).