

## Product datasheet for **RC232338**

### HLA-DQB1 (NM\_001243961) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HLA-DQB1 (NM_001243961) 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:	>RC232338 representing NM_001243961 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCTTGAAGAAGGCTTTGCGGATCCCCGGAGACCTTCGGGTAGCAACTGTCACCTTGATGCTGGCGA  
TGCTGAGCTCCCTACTGGCTGAGGGCAGAGACTCTCCCGAGGATTCGTGTTCCAGTTTAAGGGCATGTG  
CTACTTCACCAACGGGACGGAGCGGTGCGTCTTGTGACCAGATACATCTATAACCGAGAGGAGTACGCG  
CGCTTCGACAGCGACGTGGGGTGTACCGCGGTGACGCCGAGGGCGGCCTGATGCCGAGTACTGGA  
ACAGCCAGAAGGAAGTCTTGGAGGGGACCCGGGCGGAGTTGGACACGGTGTGCAGACACAACACTACGAGGT  
GGCGTTCCGCGGGATCTTGCAGAGGAGAGTGGAGCCACAGTGACCATCTCCCATCCAGGACAGAGGCC  
CTCAACCACCACAACCTGCTGGTCTGCTCGGTGACAGATTTCTATCCAGGCCAGATCAAAGTCCGGTGGT  
TTCCGGAATGATCAGGAGGAGACAGCCGGCGTGTGTCCACCCCTTATTAGGAATGGTACTGGACTTT  
CCAGATCTGGTATGCTGGAATGACTCCCCAGCGTGGAGATGTCTACACCTGCCACGTGGAGCACCCC  
AGCCTCCAGAGCCCCATACCGTGGAGTGGCGGGCTCAGTCTGAATCTGCCAGAGCAAGATGCTGAGTG  
GCGTTGGAGGCTTCGTGCTGGGGCTGATCTTCTTGGGCTGGGCCTTATCATCCGTCAAAGGAGTCAGAA  
AGGACCTCAAGGGCTCCACCAGCAGGGCTTCTGCAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC232338 representing NM\_001243961  
Red=Cloning site Green=Tags(s)

MSWKKALRIPGDLRVATVTLMLAMLSLLAEGRDSPEDFVFQFKGMCYFTNGTERVRLVTRYIYNREEYA  
 RFDSDVGVYRAVTPQGRPDAEYWNSQKEVLEGTAEALDTVCRHNYEVAFRGILQRRVEPTVITISPSRTEA  
 LNHHNLLVCSVTDFYPGQIKVRWFRNDQEETAGVVSTPLIRNGDWTFFQILVMLEMTPQRGDVTYCHVEHP  
 SLQSPITVEWRAQSESAQSKMLSGVGGFVLGLIFLGLGLIIRQRSQKGPQGGPPAGLLH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001243961

**ORF Size:** 807 bp

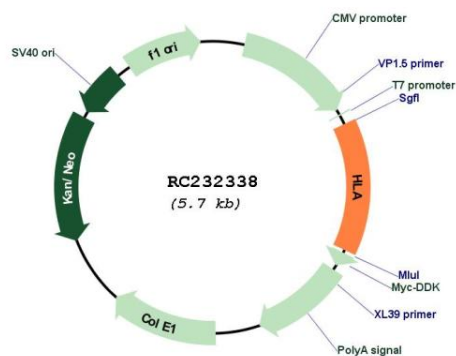
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001243961.2</u>
<b>RefSeq Size:</b>	1664 bp
<b>RefSeq ORF:</b>	810 bp
<b>Locus ID:</b>	3119
<b>Cytogenetics:</b>	6p21.32
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	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
<b>MW:</b>	30.9 kDa
<b>Gene Summary:</b>	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 RC232338