

Product datasheet for **RG232338**

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: TurboGFP
Symbol: HLA-DQB1
Synonyms: CELIAC1; HLA-DQB; IDDM1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG232338 representing NM_001243961
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCTTGAAGAAGGCTTTGCGGATCCCCGGAGACCTTCGGGTAGCAACTGTCACCTTGATGCTGGCGA
TGCTGAGCTCCCTACTGGCTGAGGGCAGAGACTCTCCCGAGGATTCGTGTTCCAGTTTAAGGGCATGTG
CTACTTCACCAACGGGACGGAGCGCGTCTGTGACCAGATACATCTATAACCGAGAGGAGTACGCG
CGCTTCGACAGCGACGTGGGGTGTACCGCGGTGACGCCGAGGGCGGCCTGATGCCGAGTACTGGA
ACAGCCAGAAGGAAGTCTTGGAGGGGACCCGGGCGGAGTTGGACACGGTGTGCAGACACAACACTACGAGGT
GGCGTTCCGCGGGATCTTGCAGAGGAGAGTGGAGCCACAGTGACCATCTCCCATCCAGGACAGAGGCC
CTCAACCACCACAACCTGCTGGTCTGCTCGGTGACAGATTTCTATCCAGGCCAGATCAAAGTCCGGTGGT
TTCCGGAATGATCAGGAGGAGACAGCCGGCGTGTGTCCACCCCTTATTAGGAATGGTACTGGACTTT
CCAGATCTGGTGTGCTGGAATGACTCCCCAGCGTGGAGATGTCTACACCTGCCACGTGGAGCACCCC
AGCCTCCAGAGCCCCATCACCGTGGAGTGGCGGGCTCAGTCTGAATCTGCCAGAGCAAGATGCTGAGTG
GCGTTGGAGGCTTCGTGCTGGGGCTGATCTTCTGGGCTGGGCCTTATCATCCGTCAAAGGAGTCAGAA
AGGACCTCAAGGGCTCCACCAGCAGGGCTTCTGCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG232338 representing NM_001243961
 Red=Cloning site Green=Tags(s)

MSWKKALRIPGDLRVATVTLMLAMLSLLAEGRDSPEDFVFQKGMICYFTNGTERVRLVTRYIYNREEYA
 RFDSVDVGYRAVTPQGRPDAEYWNSQKEVLEGTAEALDTCRHNHYEVAFRGILQRRVEPTVTISPSRTEA
 LNHHNLLVCSVTDFYPGQIKVRWFRNDQEETAGVVSTPLIRNGDWTFFQILVMLEMTPQRGDVYTCHEVHP
 SLQSPITVEWRAQSESAQSKMLSGVGGFVLGLIFLGLGLIIRQRSQKGPQGGPPAGLLH

TRTRPLE - GFP Tag - V

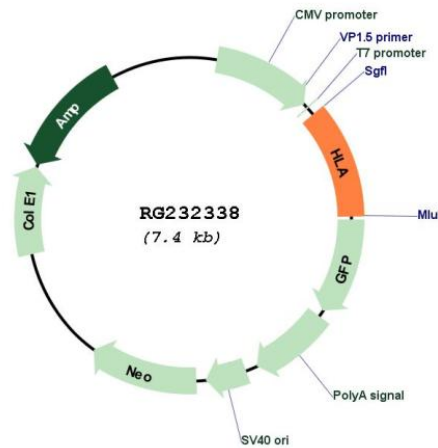
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001243961

ORF Size: 807 bp

OTI Disclaimer:	<p>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 or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	NM_001243961.2
RefSeq Size:	1664 bp
RefSeq ORF:	810 bp
Locus ID:	3119
Cytogenetics:	6p21.32
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

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]