

Product datasheet for RC215902L3

OriGene Technologies, Inc.

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HLA-DQB1 (NM_002123) Human Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: HLA-DQB1 (NM_002123) Human Tagged Lenti ORF Clone

Tag: Myc-DDK
Symbol: HLA-DQB1

Synonyms: CELIAC1; HLA-DQB; IDDM1

Mammalian Cell Puromycin

Selection:

Vector: pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clone

Sequence:

The ORF insert of this clone is exactly the same as(RC215902).

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





 $[\]ensuremath{^*}$ The last codon before the Stop codon of the ORF.

ACCN: NM_002123

ORF Size: 783 bp





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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: <u>NM 002123.2</u>

 RefSeq Size:
 1190 bp

 RefSeq ORF:
 786 bp

 Locus ID:
 3119

 UniProt ID:
 P01920

Cytogenetics: 6p21.32

Domains: MHC II beta, ig, IGc1

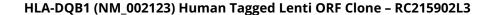
Protein Families: Transmembrane

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]