

## **Product datasheet for TR312405**

## 9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com

OriGene Technologies, Inc.

https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

## **HLA-DQB1 Human shRNA Plasmid Kit (Locus ID 3119)**

**Product data:** 

**Product Type:** shRNA Plasmids

**Product Name:** HLA-DQB1 Human shRNA Plasmid Kit (Locus ID 3119)

**Locus ID:** 3119

Synonyms: CELIAC1; HLA-DQB; IDDM1

Vector: pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Puromycin

Selection: Format:

Retroviral plasmids

Components: HLA-DQB1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID

= 3119). 5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.

**RefSeq:** BC012106, NM 001243961, NM 001243962, NM 002123, NM 002123.1, NM 002123.2,

NM 002123.3, NM 002123.4, NM 001243962.1, NM 001243961.1, BC012106.1, BC128595,

NM 001243961.2

UniProt ID: P01920

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]





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shRNA Design:

These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact <a href="mailto:techsupport@origene.com">techsupport@origene.com</a>. If you need a special design or shRNA sequence, please utilize our <a href="mailto:custom shRNA service">custom shRNA service</a>.

Performance Guaranteed: OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).