

# Product Information

## **MemDX™ Membrane Protein Human HLA-DQA1 (Major histocompatibility complex, class II, DQ alpha 1) Full Length**

Cat. No.: **MPC2347K**

This product is for research use only and is not intended for diagnostic use.

This product is a made-to-order Human HLA-DQA1 membrane protein expressed in HEK293. The protein is for research use only and is not approved for use in humans or in clinical diagnosis.

### Product Specifications

#### Host Species

Human

#### Target Protein

HLA-DQA1

#### Protein Length

Full length

#### Protein Class

Immunity

#### TMD

1

#### Sequence

MILNKALMLGALALTTVMSPCGGEDIVADHVASYGVNLYQSYGPSGQYTH  
EFDGDEQFYVDLGRKETVWCLPVLQRFRDPQFALTNI AVLKHNLNSLIK  
RSNSTAATNEVPEVTVFSKSPVTLGQPNILICLDNIFPPVVNITWLSNG  
HSVTEGVSETSFSLKSDHSFFKISYLTLLPSAEESYDCKVEHWGLDKPLL  
KHWEPEIPAPMSELTETVVCALGLSVGLVGIVVGTVFIIRGLRSVGASRH  
QGPL

### Product Description

#### Expression Systems

HEK293

#### Tag

Based on specific requirements

#### Protein Format

Detergent or based on specific requirements (Detergent, Liposome, Nanodisc, Polymer, VLP)

**Form**

Liquid

**Storage**

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -72°C or lower. Avoid freeze/thaw cycles.

**Target****Target Protein**

HLA-DQA1

**Full Name**

Major histocompatibility complex, class II, DQ alpha 1

**Introduction**

HLA-DQA1 belongs to the HLA class II alpha chain paralogues. The 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 alpha chain is approximately 33-35 kDa. It is encoded by 5 exons; exon 1 encodes the leader peptide, exons 2 and 3 encode the two extracellular domains, and exon 4 encodes the transmembrane domain and 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 Names**

HLA-DQA1; DQA1; DQ-A1; CELIAC1; HLA-DQA; HLA class II histocompatibility antigen, DQ alpha 1 chain; DC-1 alpha chain; DC-alpha; HLA class II histocompatibility antigen DQ alpha chain; HLA-DCA; MHC HLA-DQ alpha; MHC class II DQ alpha chain; MHC class II DQA1; MHC class II HLA-DQ-alpha-1; MHC class II antigen DQA1; MHC class II protein; truncated MHC class II antigen; Major histocompatibility complex, class II, DQ alpha 1

**Gene ID**

[3117](#)

**UniProt ID**

[P01909](#)