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Product Information

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

Cat. No.: **MP0193J**
This product is for research use only and is not intended for diagnostic use.

This product is a 27.8 kDa Human HLA-DQA1 membrane protein expressed in HEK293T. 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
Transmembrane

Molecular Weight
27.8 kDa

TMD
1

Sequence
MILNKALLLGALALTTVMSPCGGEDIVADHVASCGVNLYQFYGPSGQFTHEFDGDEQFYVDLEKKETAWR
WPEFSKFGGFDPQGALRNMAVAKHNLNIMIKRYNSTAATNEVPEVTVFSKSPVTLGQPNTLICLDNIFPP
VVNITWLSNGHAVTEGVSETSFLSKSDHSFFKISYLTFLPSADEIYDCKVEHWGLDQPLLKHWEPEIPAP
MSELTETVVCALGLSVGLVGIVVGTVFIIQGLRSVGASRHQGPL

Product Description

Expression Systems
HEK293T

Tag
C-Myc/DDK

Form
Liquid

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Purification

Anti-DDK affinity column followed by conventional chromatography steps

Purity

> 80% as determined by SDS-PAGE and Coomassie blue staining

Buffer

25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol

Storage

Store at +4°C for up to one week or several months at -80°C

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

DQA1; DQ-A1; CELIAC1; HLA-DQA

Gene ID

3117

UniProt ID

P01909

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