

Product Information

MemDX™ Membrane Protein Human HLA-DQB1 (Major histocompatibility complex, class II, DQ beta 1) for Antibody Discovery

Cat. No.: **MP0515X**

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

This product is a 56.3 kDa Human HLA-DQB1 membrane protein expressed in *in vitro* wheat germ expression system. 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-DQB1

Protein Length

Full-length

Molecular Weight

56.3 kDa

TMD

1

Sequence

MSWKKALRIPGGLRVATVTLMLAMLSTPVAEGRDSPEDFVYQFKGMCYFTNGTERVRLVTRYIYNREEYARFSDSDGVYRAVTPLC

Product Description

Application

Enzyme-linked Immunoabsorbent Assay, Western Blot (Recombinant protein), Antibody Production, Protein Array

Expression Systems

in vitro wheat germ expression system

Tag

GST-tag at N-terminal

Form

Liquid

Purification

Glutathione Sepharose 4 Fast Flow

Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer

Storage

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

Target

Target Protein

HLA-DQB1

Full Name

Major histocompatibility complex, class II, DQ beta 1

Introduction

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

Alternative Names

IDDM1; CELIAC1; HLA-DQB

Gene ID

[3119](#)

UniProt ID

[P01920](#)