

Product Information

MemDX™ Membrane Protein Human HLA-DRB1 (Major histocompatibility complex, class II, DR beta 1)

Cat. No.: **MP0253J**

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

This product is a 27 kDa Human HLA-DRB1 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-DRB1

Protein Length

Full-length

Protein Class

Transmembrane

Molecular Weight

27 kDa

TMD

1

Sequence

MVCLKLPGGSCMTALTVTLMVLSSPLALAGDTRPRFLWQLKFECHFFNGTERVRLLERCINQEESVRFD
SDVGEYRAVTELGRPDAEYWNSQKDLLEQRRAAVDYCRHNYGVGESFTVQRRVEPKVTVYPSKTQPLQH
HNLLVCSVSGFYPGSIEVRWFRNGQEEKAGVVSTGLIQNGDWTFQTLVMLETVPRSGEVYTCQVEHPSVT
SPLTVEWRARSESAQSKMLSGVGGFVLGLLFLGAGLFIYFRNQKGHSGLQPTGFLS

Product Description

Expression Systems

HEK293T

Tag

C-Myc/DDK

Form

Liquid

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-DRB1

Full Name

Major histocompatibility complex, class II, DR beta 1

Introduction

HLA-DRB1 belongs to the HLA class II beta chain paralogs. The class II molecule is a heterodimer consisting of an alpha (DRA) and a beta chain (DRB), 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. The beta chain is approximately 26-28 kDa. It is encoded by 6 exons. Exon one 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 DR molecule the beta chain contains all the polymorphisms specifying the peptide binding specificities. Hundreds of DRB1 alleles have been described and some alleles have increased frequencies associated with certain diseases or conditions. For example, DRB1*1302 has been related to acute and chronic hepatitis B virus persistence. There are multiple pseudogenes of this gene.

Alternative Names

SS1; DRB1; HLA-DRB; HLA-DR1B; MHC class II HLA-DR beta 1 chain; lymphocyte antigen DRB1; human leucocyte antigen DRB1

Gene ID

[3123](#)

UniProt ID

[P01911](#)