

Product Information

MemDX™ Membrane Protein Human HLA-DRB1 (Major histocompatibility complex, class II, DR beta 1) Expressed in *E.coli* with 10xHis and SUMO tag at the N-terminus, Myc tag at the C-terminus for Antibody Discovery, Partial (30-227aa)

Cat. No.: **MPX4283K**

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

This product is a 42.9kDa Human HLA-DRB1 membrane protein expressed in *E.coli*. 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

Partial (30-227aa)

Protein Class

Immunity

Molecular Weight

42.9kDa

TMD

1

Sequence

GDTRPRFLWQLKFECHFFNGTERVRLLERCIYNQEESVRFDSVGEYRAVTELGRPDAEYWNSQKDLLEQRRAAVDTYCRHNYG

Product Description

Expression Systems

E.coli

Tag

10xHis and SUMO tag at the N-terminus, Myc tag at the C-terminus

Protein Format

Soluble

Form

Liquid or Lyophilized powder

Purity

>90% as determined by SDS-PAGE

Buffer

Tris-based buffer, 50% glycerol

Storage

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -70°C or lower. Avoid freeze/thaw cycles.

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

HLA-DRB1; SS1; DRB1; HLA-DRB; HLA-DR1B; major histocompatibility complex, class II, DR beta 1 precursor; HLA class II histocompatibility antigen, DR-1 beta chain; MHC class II HLA-DR beta 1 chain; human leucocyte antigen DRB1; lymphocyte antigen DRB1; Major histocompatibility complex, class II, DR beta 1

Gene ID

[3123](#)

UniProt ID

[P04229](#)