

## Product Information

**MemDX™ Membrane Protein Human HLA-DRB1 (Major histocompatibility complex, class II, DR beta 1) Expressed *in vitro* E.coli expression system, Full Length of Mature Protein**

Cat. No.: **MPX1447K**

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

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

#### Protein Length

Full Length of Mature Protein

#### Protein Class

Immunity

#### TMD

1

#### Sequence

GDTRPRFLWQPKRECHFFNGTERVRFLDRYFYNQEESVRFDSVGEYRAVTELGRPDAEYWNSQKDFLEDRRAAVDTYCRHNY

### Product Description

#### Expression Systems

*in vitro* E.coli expression system

#### Tag

10xHis tag at the N-terminus

#### Protein Format

Soluble

#### Form

Liquid or Lyophilized powder

#### Buffer

Tris/PBS-based buffer, 6% Trehalose, pH 8.0

### 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

[Q29974](#)