

# Product Information

## **MemDX™ Membrane Protein Human HLA-DPB1 (Major histocompatibility complex, class II, DP beta 1) Full Length**

Cat. No.: **MPC2917K**

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

This product is a made-to-order Human HLA-DPB1 membrane protein expressed in HEK293. 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-DPB1

#### Protein Length

Full length

#### Protein Class

Immunity

#### TMD

1

#### Sequence

MMVLQVSAAPRTVALTALLMVLLTSVVQGRATPENYLFQGRQECYAFNGT  
QRFLERYIYNREEFARFDSVGEFRAVTELGRPAAEYWNSQKDILEEKRA  
VPDRMCRHNYELGGPMTLQRRVQPRVNVSPSKKGPLQHHNLLVCHVTDFY  
PGSIQVRWFLNGQEETAGVVSTNLIRNGDWTFQILVMLEMPQQGDVYTC  
QVEHTSLDSPVTVEWKAQSDSARSKTLTGAGGFVLGLICGVGIFMHRRS  
KKVQRGSA

### Product Description

#### Expression Systems

HEK293

#### Tag

Based on specific requirements

#### Protein Format

Detergent or based on specific requirements (Detergent, Liposome, Nanodisc, Polymer, VLP)

**Form**

Liquid

**Storage**

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -72°C or lower. Avoid freeze/thaw cycles.

**Target****Target Protein**

HLA-DPB1

**Full Name**

Major histocompatibility complex, class II, DP beta 1

**Introduction**

HLA-DPB belongs to the HLA class II beta chain paralogues. This class II molecule is a heterodimer consisting of an alpha (DPA) and a beta chain (DPB), 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 its gene contains 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 DP molecule both the alpha chain and the beta chain contain the polymorphisms specifying the peptide binding specificities, resulting in up to 4 different molecules.

**Alternative Names**

HLA-DPB1; DPB1; HLA-DP; HLA-DPB; HLA-DP1B; HLA class II histocompatibility antigen, DP beta 1 chain; HLA class II histocompatibility antigen, DP(W4) beta chain; HLA-DP histocompatibility type, beta-1 subunit; MHC HLA DPB1; MHC class II HLA-DP-beta-1; MHC class II antigen DPB1; Major histocompatibility complex, class II, DP beta 1

**Gene ID**

[3115](#)

**UniProt ID**

[P04440](#)