

Product Information

MemDX™ Membrane Protein Human HLA-B (Major histocompatibility complex, class I, B)

Expressed in *E.coli* with 6xHis tag at the N-terminus for Antibody Discovery, Partial (25-308aa)

Cat. No.: **MPX4235K**

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

This product is a 36.8kDa Human HLA-B 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-B

Protein Length

Partial (25-308aa)

Protein Class

Immunity

Molecular Weight

36.8kDa

TMD

1

Sequence

GSLSMRYFYTAMSRPGRGEPRFISVGIVDDTQFVRFSDAASPREEPRAPWIEQEGPEYWDRNTQICKTNTQTYRESLRNLRGY

Product Description

Expression Systems

E.coli

Tag

6xHis tag at the N-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-B

Full Name

Major histocompatibility complex, class I, B

Introduction

HLA-B belongs to the HLA class I heavy chain paralogues. This class I molecule is a heterodimer consisting of a heavy chain and a light chain (beta-2 microglobulin). The heavy chain is anchored in the membrane. Class I molecules play a central role in the immune system by presenting peptides derived from the endoplasmic reticulum lumen. They are expressed in nearly all cells. The heavy chain is approximately 45 kDa and its gene contains 8 exons. Exon 1 encodes the leader peptide, exon 2 and 3 encode the alpha1 and alpha2 domains, which both bind the peptide, exon 4 encodes the alpha3 domain, exon 5 encodes the transmembrane region and exons 6 and 7 encode the cytoplasmic tail. Polymorphisms within exon 2 and exon 3 are responsible for the peptide binding specificity of each class one molecule. Typing for these polymorphisms is routinely done for bone marrow and kidney transplantation. Hundreds of HLA-B alleles have been described.

Alternative Names

HLA-B; AS; HLAB; B-4901; HLA class I antigen HLA-B; HLA class I histocompatibility antigen, B alpha chain; MHC HLA-B cell surface glycoprotein; MHC HLA-B transmembrane glycoprotein; MHC class 1 antigen; MHC class I antigen HLA-B alpha chain; MHC class I antigen HLA-B heavy chain; MHC class I antigen SHCHA; MHC class I molecule; leukocyte antigen class I-B; Major histocompatibility complex, class I, B

Gene ID

[3106](#)

UniProt ID

[Q96DW9](#)