

# Recombinant human HLA-DRB1 protein

Catalog Number: ATGP2585

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

30-227aa

### UniProt No.

P01911

### NCBI Accession No.

NP\_002115

### Alternative Names

Major histocompatibility complex class II DR beta 1, Major histocompatibility complex, class II, DR beta 1, DRB1, HLA DRB1, HLA-DR1B, HLA-DRB1

## PRODUCT SPECIFICATION

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### Molecular Weight

25.2 kDa (219aa)

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.4M urea, 10% glycerol

### Purity

> 85% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE, Denatured

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

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 (APC: B lymphocytes, dendritic cells, macrophages). 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

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domains; exon 4 encodes the transmembrane domain; and exon 5 encodes the cytoplasmic tail. Recombinant human HLA-DRB1 protein, fused to His-tag at N-terminus, was expressed in *E. coli*.

## Amino acid Sequence

MGSSHHHHHHH SSGLVPRGSH MGDTRPRFLW QPKRECHFFN GTERVRFLLDR YFYNQEEESVR FSDVGEFRA VTELGRPDAE  
YWNSQKDILE QARAADTYC RHNYGVVESF TVQRRVQPKV TVYPSKTQPL QHHNLLVCSV SGFYPGSIEV RWFLNGQEEK  
AGMVSTGLIQ NGDWTFQTLV MLETVPRSGE VYTCQVEHPS VTSPLTVEWR ARSESAQSK

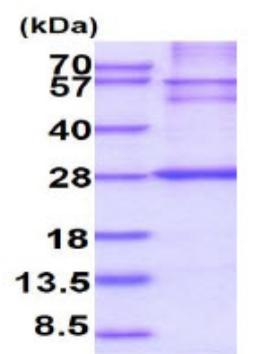
## General References

Menendez-Benito V., et al. (2007) *Immunity*. 26:1-3

De Gassart A., et al. (2008) *Proc. Natl. Acad. Sci. u.S.A.* 105:3491-3496

## DATA

### SDS-PAGE



15% SDS-PAGE (3ug)

3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.