Recombinant Human HLA-DRB1, GST-tagged

Cat. No. HLA-DRB1-13822H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human HLA-DRB1 protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.
Species	Human
Source	E.coli
ProteinLength	31-227a.a.
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 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 typing for these polymorphisms is routinely done for bone marrow and kidney transplantation. DRB1 is expressed at a level five times higher than its paralogs DRB3, DRB4 and DRB5. DRB1 is present in all individuals. Allelic variants of DRB1 are linked with either none or one of the genes DRB3, DRB4 and DRB5. There are 4 related pseudogenes: DRB2, DRB6, DRB7, DRB8 and DRB9.

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Storage	The protein is stored in PBS buffer at -20℃. Avoid repeated freezing and thawing cycles.
Storage Buffer	1M PBS (58mM Na2HPO4,17mM NaH2PO4, 68mM NaCl, pH8.) added with 100mM GSH and 1% Triton X-100,15%glycerol.

GENE INFORMATION

Gene Name	HLA-DRB1 major histocompatibility complex, class II, DR beta 1 [Homo sapiens]
Official Symbol	HLA-DRB1
Synonyms	HLA-DRB1; major histocompatibility complex, class II, DR beta 1; HLA DR1B; DW2.2/DR2.2; MHC class II antigen; lymphocyte antigen DRB1; MHC class II HLA-DRw10-beta; human leucocyte antigen DRB1; MHC class II HLA-DR beta 1 chain; MHC class II HLA-DR-beta cell surface glycoprotein; HLA class II histocompatibility antigen, DR-1 beta chain; SS1; DRB1; DRw10; HLA-DRB; HLA-DR1B; FLJ75017; FLJ76359;
Gene ID	3123
mRNA Refseq	NM_001243965
Protein Refseq	NP_001230894
MIM	142857
UniProt ID	P01911
Chromosome Location	6p21.3

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Pathway	Adaptive Immune System, organism-specific biosystem; Allograft rejection, organism-specific biosystem; Allograft rejection, conserved biosystem; Antigen processing and presentation, organism-specific biosystem; Antigen processing and presentation, conserved biosystem; Asthma, organism-specific biosystem; Asthma, conserved biosystem;
Function	MHC class II receptor activity; MHC class II receptor activity;

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