

Recombinant Human HLA-DRB4, GST-tagged

Cat. No. HLA-DRB4-1209H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human HLA-DRB4 encoding human HLA-DRB4 full-length ORF (30 a.a. - 266 a.a.), fused with GST-tag at N-terminal, was expressed in wheat germ.
Species	Human
Source	Wheat Germ
ProteinLength	30-266 a.a.
Description	HLA-DRB4 belongs to the HLA class II beta chain paralogues. This class II molecule is a heterodimer consisting of an alpha (DRA) and a beta (DRB) chain, 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 DR molecule the beta chain contains all the polymorphisms specifying the peptide binding specificities. Typing for these polymorphisms is routinely done for bone marrow and kidney transplantation. DRB1 is expressed at a level five times higher than its paralogues DRB3, DRB4 and DRB5. The presence of DRB4 is linked with allelic variants of DRB1, otherwise it is omitted.
Molecular Mass	51.81 kDa

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Sequence	GDTQPRFLEQAKCECRFLNGTERVWNLIRYIYNQEEYARYNSDLGEYQAVTELGRP DAEYWNSQKDLLERRRAEVDTYCRYNYGVVESFTVQRRVQPKVTVYPSKTQPLQH HNLLVCSVNGFYPGSIEVRWFRNGQEEKAGVVSTGLIQNGDWTFQTLVMLETVPRS GEVYTCQVEHPSMMSPLTVQWSARSESAQSKMLSGVGGFVLGLLFLGTGLFIYFRN QKGHSGLQPTGLLS
Purification	Glutathione Sepharose 4 Fast Flow
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Stability	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
OfficialSymbol	HLA-DRB4

GENE INFORMATION

Gene Name	HLA-DRB4 – major histocompatibility complex, class II, DR beta 4 [Homo sapiens]
Synonyms	DR4; DR-4; DRB4; HLA-DR4B; major histocompatibility complex, class II, DR beta 4; leukocyte antigen; MHC class2 antigen; MHC HLA DR-beta chain; MHC class II antigen DRB4; DRB1 transplantation antigen; human leucocyte antigen DRB4; MHC class II antigen HLA-DR-beta; HLA class II histocompatibility antigen, DR beta 4 chain
Gene ID	3126
mRNA Refseq	NM_021983
Protein Refseq	NP_068818
UniProt ID	P13760

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Chromosome Location	6p21.3
Pathway	Adaptive Immune System; Allograft rejection; Antigen processing and presentation; Asthma; Autoimmune thyroid disease; Cell adhesion molecules (CAMs)
Function	MHC class II receptor activity; peptide antigen binding; protein binding

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