

Recombinant Human HLA-DQA1

Cat. No. HLA-DQA1-29328TH Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant fragment of Human HLA-DQA1 (aa 24-110) with a N terminal proprietary tag: predicted molecular weight 35.20 kDa.

Species Human

Source Wheat Germ

ProteinLength 87 amino acids

Description HLA-DQA1 belongs to the HLA class II alpha chain paralogues. The class II molecule is a heterodimer consisting of an alpha (DQA) and a beta chain (DQB), 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 alpha chain is approximately 33-35 kDa. It is encoded by 5 exons; exon 1 encodes the leader peptide, exons 2 and 3 encode the two extracellular domains, and exon 4 encodes the transmembrane domain and the cytoplasmic tail. Within the DQ molecule both the alpha chain and the beta chain contain the polymorphisms specifying the peptide binding specificities, resulting in up to four different molecules. Typing for these polymorphisms is routinely done for bone marrow transplantation.

Molecular Weight 35.200kDa inclusive of tags

Form Liquid

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Purity	Proprietary Purification
Storage buffer	pH: 8.00 Constituents: 0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.
Sequences of amino acids	EDIVADHVASCGVNLYQFYGPSGQYTHEFDGDEQFYVDLERKETAWRWPEFSKFG GFDPQGALRNMAVAKHNLNIMIKRYNSTAATN
Sequence Similarities	Belongs to the MHC class II family. Contains 1 Ig-like C1-type (immunoglobulin-like) domain.
GENE INFORMATION	
Gene Name	HLA-DQA1 major histocompatibility complex, class II, DQ alpha 1 [Homo sapiens]
Official Symbol	HLA-DQA1
Synonyms	HLA-DQA1; major histocompatibility complex, class II, DQ alpha 1; HLA DQA; HLA class II histocompatibility antigen, DQ alpha 1 chain; CELIAC1;
Gene ID	3117
mRNA Refseq	NM_002122
Protein Refseq	NP_002113
MIM	146880
Uniprot ID	P01909

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Chromosome Location	6p21.3
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;
Function	MHC class II receptor activity; MHC class II receptor activity;

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