

Recombinant Full Length Human HLA-DQA1 Protein, C-Flag-tagged

Cat. No. HLA-DQA1-973HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human HLA-DQA1 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
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.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Molecular Mass	27.8 kDa
AA Sequence	MILNKALLLGALALTTVMSPCGGEDIVADHVASCGVNLYQFYGPSGQFTHEFDGDE

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QFYVDLEKKETAWR WPEFSKFGGFDPQGALRNMAVAKHNLNIMIKRYNSTAATNE
VPEVTVFSKSPVTLGQPNTLICLDNIFPP VVNITWLSNGHAVTEGVSETSFLSKSDHS
FFKISYLTFLPSADEIYDCKVEHWGLDQPLLKHWEPEIPAP
MSELTETVVCALGLSVGLVGIVVGTVFIIQGLRSVGASRHQGPLTRTRPLEQKLISEE
DLAANDILDYKDDDDKV

Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Protein Families	Transmembrane
Protein Pathways	Allograft rejection, Antigen processing and presentation, Asthma, Autoimmune thyroid disease, Cell adhesion molecules (CAMs), Graft-versus-host disease, Systemic lupus erythematosus, Type I diabetes mellitus, Viral myocarditis
Full Length	Full L.

GENE INFORMATION

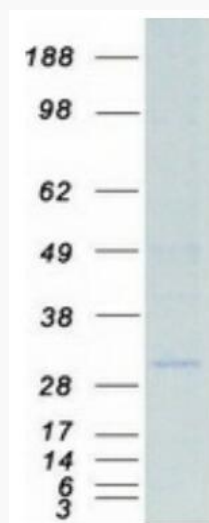
Gene Name HLA-DQA1 major histocompatibility complex, class II, DQ alpha 1 [Homo sapiens (human)]

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Official Symbol	HLA-DQA1
Synonyms	DQA1; DQ-A1; CELIAC1; HLA-DQA; HLA-DQB1; HLA-DQA1*
Gene ID	3117
mRNA Refseq	NM_002122.5
Protein Refseq	NP_002113.2
MIM	146880
UniProt ID	P01909



Coomassie blue staining of purified HLA-DQA1 protein.