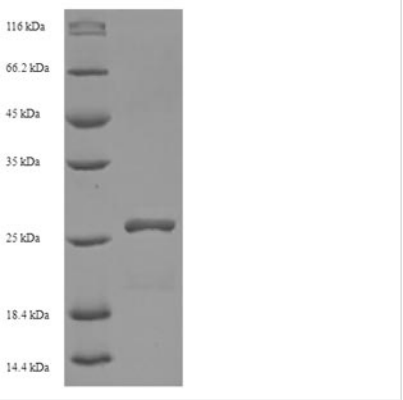
Recombinant Human HLA-DMA protein (HLA-DMA), partial

Product Code	CSB-EP338892HU
Abbreviation	Recombinant Human HLA-DMA protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q6ICR9
Product Type	Recombinant Protein
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	VPEAPTPMWPDDLQNHTFLHTVYCQDGSPSVGLSEAYDEDQLFFFDFSQNTR VPRLPEFADWAQEQGDAPAILFDKEFCEWMIQQIGPKLDGKIPVSRGFPIAEVF TLKPLEFGKPNTLVCFVSNLFPPMLTVNWQHHSVPVEGFGPTFVSAVDGLSF QAFSYLNFTPEPSDIFSCIVTHEIDRYTAIAYWVPRNALPSDLLENVLC
Research Area	Cardiovascular
Source	E.coli
Target Names	HLA-DMA
Expression Region	27-233aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	27.4kDa
Protein Length	Partial
Image	 (Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The region for expressing recombinant Human HLA-DMA contains amino acids 27-233. This HLA-DMA protein is theoretically predicted to have a molecular

	weight of 27.4 kDa. This HLA-DMA recombinant protein is manufactured in e.coli. The N-terminal 6xHis tag was smoothly integrated into the coding gene of HLA-DMA, which enables a simple process of detecting and purifying the HLA-DMA recombinant protein in the following steps. The human leukocyte antigen-DMA (HLA-DMA) protein is a non-classical MHC class II protein that is involved in the peptide-loading process onto MHC class II molecules. Specifically, HLA-DMA acts as a chaperone during the peptide-loading phase in the endosomal compartments of antigen-presenting cells (APCs). It associates with MHC class II molecules and catalyzes the exchange of peptides bound to the MHC class II binding groove. This peptide exchange mechanism allows for the loading of high-affinity peptides onto MHC class II molecules, optimizing the antigen presentation to $CD4^+$ T cells. The HLA-DMA protein is crucial for the efficient presentation of antigens to $CD4^+$ T cells, which, in turn, triggers appropriate immune responses against pathogens. Understanding the functions of HLA-DMA is essential for unraveling the complexities of antigen presentation and immune regulation.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.