

HLA class II histocompatibility antigen, DR alpha chain (HLA-DRA) Recombinant Protein | HLA-DRA recombinant protein

Recombinant Human HLA class II histocompatibility antigen, DR alpha chain (HLA-DRA), partial

CATALOG # AAA18607	HOST E Coli or Yeast or Baculovirus or Mammalian Cell
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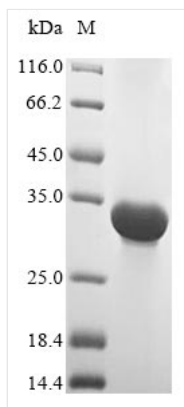
PRODUCT SYNONYMS

HLA class II histocompatibility antigen; DR alpha chain (HLA-DRA); Recombinant Human HLA class II histocompatibility antigen; partial; HLA-DRA recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE.
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Sequence Positions	26-254. Full Length of Mature Protein
Sequence	IKEEHVIIQA EFYLNPDQSG EFMDFDGDGE IFHVDMAKKE TVWRLEEFGR FASFEAQGAL ANIAVDKANL EIMTKRSNYT PITNVPPEVT VLTNSPVELR EPNVLICFID KFTPPVVNVT WLRNGKPVTT GVSETVFLPR EDHLFRKFHY LPFLPSTEDV YDCRVEHWGL DEPLLKHWEF DAPSPLPETT ENNVCALGLT VGLVGIIIGT IFIIGVVRKS NAAERRGPL
Species	Homo sapiens (Human)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for HLA-DRA recombinant protein	Binds peptides derived from antigens that access the endocytic route of antigen presenting cells (APC) and presents them on the cell surface for recognition by the CD4 T-cells. The peptide binding cleft accommodates peptides of 10-30 residues. The peptides presented by MHC class II molecules are generated mostly by degradation of proteins that access the endocytic route, where they are processed by lysosomal proteases and other hydrolases. Exogenous antigens that have been endocytosed by the APC are thus readily available for presentation via MHC II molecules, and for this reason this antigen presentation pathway is usually referred to as exogenous. As membrane proteins on their way to degradation in lysosomes as part of their normal turn-over are also contained in the endosomal lysosomal compartments, exogenous antigens must compete with those derived from endogenous components. Autophagy is also a source of endogenous peptides, autophagosomes constitutively fuse with MHC class II loading compartments. In addition to APCs, other cells of the gastrointestinal tract, such as epithelial cells, express MHC class II molecules and CD74 and act as APCs, which is an unusual trait of the GI tract. To produce a MHC class II molecule that presents an antigen, three MHC class II molecules (heterodimers of an alpha and a beta chain) associate with a CD74 trimer in the ER to form a heterononamer. Soon after the entry of this complex into the endosomal lysosomal system where antigen processing occurs, CD74 undergoes a sequential degradation by various proteases, including CTSS and CTSL, leaving a small fragment termed CLIP (class-II-associated invariant chain peptide). The removal of CLIP is facilitated by HLA-DM via direct binding to the alpha-beta-CLIP complex so that CLIP is released. HLA-DM stabilizes MHC class II molecules until primary high affinity antigenic peptides are bound. The MHC II molecule bound to a peptide is then transported to the cell membrane surface. In B-cells, the interaction between HLA-DM and MHC class II molecules is regulated by HLA-DO. Primary dendritic cells (DCs) also to express HLA-DO. Lysosomal microenvironment has been implicated in the regulation of antigen loading into MHC II molecules, increased acidification produces increased proteolysis and efficient peptide loading.
Product Categories/Family for HLA-DRA recombinant protein	Immunology
References	"Organization of the transcriptional unit of a human class II histocompatibility antigen: HLA-DR heavy chain." Schamboeck A., Korman A.J., Kamb A., Strominger J.L. Nucleic Acids Res. 11:8663-8675(1983)

NCBI AND UNIPROT INFORMATION

NCBI GI #	52426774
NCBI GeneID	3122
NCBI Accession #	NP_061984.2
NCBI GenBank Nucleotide #	NM_019111.4
UniProt Accession #	P01903 ; Q30160 ; Q6IAZ1 ; Q861I2 ; Q9TP70 ; A2BET4
Molecular Weight	28 kDa
NCBI Official Full Name	HLA class II histocompatibility antigen, DR alpha chain
NCBI Official Synonym Full Names	major histocompatibility complex, class II, DR alpha
NCBI Official Symbol	HLA-DRA
NCBI Official Synonym Symbols	HLA-DRA1
NCBI Protein Information	HLA class II histocompatibility antigen, DR alpha chain
UniProt Protein Name	HLA class II histocompatibility antigen, DR alpha chain
UniProt Gene Name	HLA-DRA
UniProt Synonym Gene Names	HLA-DRA1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.