

Recombinant Human CD74, His-tagged

Cat. No. CD74-114H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human CD74, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.
Species	Human
Source	Insect Cells
Description	CD74, also known as HLA class II histocompatibility antigen gamma chain or HLA-DR antigens-associated invariant chain or CD74 (Cluster of Differentiation 74). The nascent MHC class II protein in the rough ER has its peptide-binding cleft blocked by the invariant chain (Ii; a trimer) to prevent it from binding cellular peptides or peptides from the endogenous pathway. The invariant chain also facilitates MHC class II's export from the ER in a vesicle. The signal for endosomal targeting resides in the cytoplasmic tail of the invariant chain. This fuses with a late endosome containing the endocytosed, degraded proteins. It is then cleaved by cathepsin S (cathepsin L in cortical thymic epithelial cells), leaving only a small fragment called CLIP which blocks peptide binding until HLA-DM binds to MHC II, releasing CLIP and allowing other peptides to bind. The stable MHC class-II is then presented on the cell surface.
Form	Liquid. In phosphate buffered saline (pH7.4) containing 10% glycerol.
Molecular Mass	19.05kDa (166aa)18-28kDa (SDS-PAGE under reducing conditions.)
AA Sequence	QQQGRLDKLT VTSQNLQLEN LRMKLPKPPK PVSKMRMATP LLMQALPMGA LPQGPMQNAT KYGNMTEDHV MHLLQNADPL KVYPPLKGSFPENLRHLKNT

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	METIDWKVFE SWMHHWLLFE MSRHSLEQKP TDAPPKESLE LEDPSSGLGV TKQDLGPVPM HHHHHH
Endotoxin	< 1.0 eu per 1 microgram of protein (determined by lal)
Purity	>85% by SDS - PAGE.
Storage	Can be stored at +4C short term (1-2 weeks). For long term storage, aliquot and store at -20C or -70C. Avoid repeated freezing and thawing cycles.
Concentration	0.5mg/ml (determined by absorbance at 280nm)
GENE INFORMATION	
Gene Name	CD74 CD74 molecule, major histocompatibility complex, class II invariant chain [Homo sapiens]
Official Symbol	CD74
Synonyms	CD74; CD74 molecule, major histocompatibility complex, class II invariant chain; CD74 antigen (invariant polypeptide of major histocompatibility complex, class II antigen associated) , DHLAG; HLA class II histocompatibility antigen gamma chain; gamma chain of class II antigens; HLA DR gamma; Ia associated invariant chain; MHC HLA DR gamma chain; p33; HLA-DR-gamma; MHC HLA-DR gamma chain; Ia-associated invariant chain; HLA-DR antigens-associated invariant chain; CD74 antigen (invariant polypeptide of major histocompatibility complex, class II antigen-associated); II; DHLAG; HLADG; Ia-GAMMA; FLJ98970;
Gene ID	972
mRNA Refseq	NM_001025158

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Protein Refseq	NP_001020329
MIM	142790
UniProt ID	P04233
Chromosome Location	5q31-q33
Pathway	Antigen processing and presentation, organism-specific biosystem; Antigen processing and presentation, conserved biosystem; Herpes simplex infection, organism-specific biosystem; Herpes simplex infection, conserved biosystem; Tuberculosis, organism-specific biosystem; Tuberculosis, conserved biosystem;
Function	MHC class II protein binding; MHC class II protein binding; beta-amyloid binding; cytokine binding; cytokine receptor activity; identical protein binding; nitric-oxide synthase binding;

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