

Recombinant human CD74 protein

Catalog Number: ATGP3134

PRODUCT INFORMATION

Expression system

Baculovirus

Domain

73-232aa

UniProt No.

P04233

NCBI Accession No.

NP_004346.1

Alternative Names

HLA class II histocompatibility antigen gamma chain isoform b, DHLAG, HLADG, Ia-GAMMA II

PRODUCT SPECIFICATION

Molecular Weight

19.3kDa (169aa)

Concentration

0.5mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity

> 85% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

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

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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. Recombinant human CD74, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

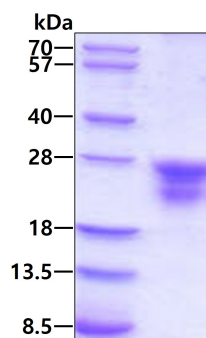
<ADP>QQQGRLD KLTVTSQNLQ LENLRMKLPK PPKPVSKMRM ATPLLMQALP MGALPQGPMQ NATKYGNMTE
DHVMHLLQNA DPLKVYPPLK GSFPENLRHL KNTMETIDWK VFESWMHHWL LFEMSRHSLE QKPTDAPPKE SLELEDPSSG
LGVTKQDLGP VPM<HHHHHH>

General References

Claesson L. et al. (1983) Proc Natl Acad Sci U S A. 80(24):7395-9.
Bakke O. et al. (1990) Cell. 63(4):707-16.
Strubin M. et al. (1984) EMBO J. 3(4):869-72.

DATA

SDS-PAGE



3µg by SDS-PAGE under reducing condition and visualized by coomassie blue stain