

Human CD74 Protein (His Tag)

Catalog Number: 11091-H07H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

DHLA; HLADG; Ia-GAMMA; II

Protein Construction:

A DNA sequence encoding the extracellular domain (Gln 73-Met 232) of human CD74 isoform b (NP_004346.1) was fused with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 80 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA . Immobilized human CD74 at 5 µg/ml (100 µl/well) can bind biotinylated human CTSL1 with a linear range of 3.2-400 ng/ml .

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Val 19

Molecular Mass:

The recombinant human CD74 consists of 176 amino acids and has a calculated molecular mass of 20.4 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhCD74 is approximately 34 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

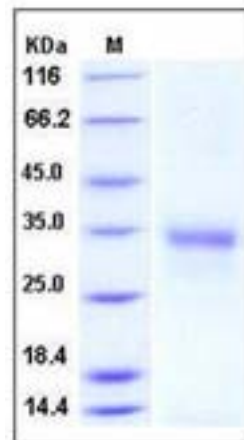
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The cluster of differentiation (CD) system is commonly used as cell markers in immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules which associating with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion. CD74, also known as HLA class2 histocompatibility antigen gamma chain and HLA-DR antigens-associated invariant chain, is a polypeptide involved in the formation and transport of MHC class2 protein. CD74 is expressed by B cells, macrophages, and Reed-Sternberg cells. When MHC class 2 protein was in the rough ER, its peptide-binding cleft was blocked by CD74 to prevent it from interacting with the endogenous peptides. CD74 also serves to facilitate MHC class2's export from ER.

References

- 1.Zola H, *et al.* (2007) CD molecules 2006-human cell differentiation molecules. J Immunol Methods. 318 (1-2): 1-5.
- 2.Ho IC, *et al.* (2009) GATA3 and the T-cell lineage: essential functions before and after T-helper-2-cell differentiation. Nat Rev Immunol. 9 (2): 125-35.
- 3.Matesanz-Isabel J, *et al.* (2011) New B-cell CD molecules. Immunology Letters.134 (2): 104-12.

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