

Rat CD70 / CD27L / TNFSF7 Protein (His Tag)

Catalog Number: 80161-R07H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CD70

Protein Construction:

A DNA sequence encoding the rat CD70 (NP_001100348) (Gln46-Pro195) was expressed, fused with a polyhistidine tag at the N-terminus.

Source: Rat

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

1.Measured by its binding ability in a functional ELISA. 2.Immobilized rat His-CD70 (Cat:80161-R07H) at 10µg/mL (100µL/well) can bind mouse CD27-Fch (Cat:50110-M03H), the EC₅₀ of mouse CD27-Fch is 10-50ng/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: His

Molecular Mass:

The recombinant rat CD70 comprises 170 amino acids and has a predicted molecular mass of 18.9 kDa. The apparent molecular mass of the protein is approximately 28 kDa in SDS-PAGE under reducing conditions.

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:

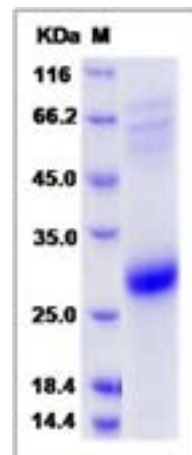
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

CD70, a member of the tumor necrosis factor superfamily, is restricted to activated T-and B-lymphocytes and mature dendritic cells. Binding of CD70 to its receptor, CD27, is important in priming, effector functions, differentiation and memory formation of T-cells as well as plasma and memory B-cell generation. Tight control of CD70 expression is required to prevent lethal immunodeficiency. By selective transcription, CD70 is largely confined to activated lymphocytes and dendritic cells (DC). As a type II transmembrane receptor, CD70 is normally expressed on a subset of B, T and NK cells, where it plays a costimulatory role in immune cell activation. Immunohistochemical analysis of CD70 expression in multiple carcinoma types. The restricted expression pattern of CD70 in normal tissues and its widespread expression in various malignancies makes it an attractive target for antibody-based therapeutics. Investigations to exploit CD70 as a cancer target have lead to the identification of potential antibody-based clinical candidates.

References

1.Adam PJ, *et al.* (2006) CD70 (TNFSF7) is expressed at high prevalence in renal cell carcinomas and is rapidly internalised on antibody binding. *Br J Cancer.* 95(3): 298-306. 2.Keller AM, *et al.* (2007) Costimulatory ligand CD70 is delivered to the immunological synapse by shared intracellular trafficking with MHC class II molecules. *Proc Natl Acad Sci U S A.* 104(14): 5989-94. 3.Grewal IS. (2008) CD70 as a therapeutic target in human malignancies. *Expert Opin Ther Targets.* 12(3): 341-51.

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