

Rat B7-H3 / CD276 Protein (Fc Tag)

Catalog Number: 80380-R02H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

CD276, B7h3

Protein Construction:

A DNA sequence encoding the rat CD276 (Q7TPB4) (Met1-Phe244) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Rat

Expression Host: Human Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

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 29

Molecular Mass:

The recombinant rat CD276/Fc is a disulfide-linked homodimer. The reduced monomer comprises 457 amino acids and has a predicted molecular mass of 50.6 kDa. The apparent molecular mass of the protein is approximately 61 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

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

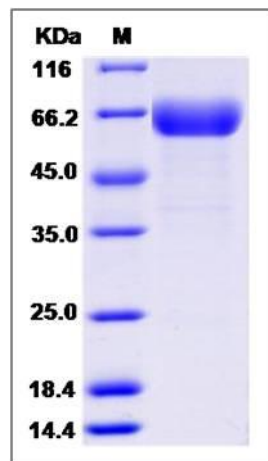
Usage Guide

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.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

B7-H3 is one of the most recently identified members of the B7/CD28 superfamily of costimulatory molecules serving as an accessory modulator of T-cell response. B7 family molecules, which are expressed on antigen-presenting cells and display extracellular regions containing immunoglobulin (Ig) variable (V)- and constant (C)-like domains, are known to modulate T cell receptor (TCR)-mediated T cell activation by providing co-signals that are either stimulatory or inhibitory. B7-H3 provides a stimulatory signal to T cells. However, recent studies suggest a negative regulatory role for B7-H3 in T cell responses. B7-H3 inhibited T cell proliferation mediated by antibody to T cell receptor or allogeneic antigen-presenting cells. B7-H3 is a negative regulator that preferentially affects T(H)1 responses. B7-H3 may play an important role in muscle-immune interactions, providing further evidence of the active role of muscle cells in local immunoregulatory processes. Recently, B7-H3 expression has also been found in a variety of different human cancers, including prostate cancer, clear cell renal cell carcinoma (ccRCC), non-small-cell lung cancer (NSCLC), pancreatic cancer, gastric cancer, ovarian cancer, colorectal cancer (CRC) and urothelial cell carcinoma. B7-H3 was expressed in some human cancers and correlated with poor outcome of cancer patients.

References

1. Loos M. et al., 2010, Clin Dev Immunol. 2010: 683875.
2. Nagashima O. et al., 2008, J Immunol. 181 (6): 4062-71.
3. Suh WK. et al., 2003, Nat Immunol. 4 (9): 899-906.
4. Waschbisch A. et al., 2008, Arthritis Rheum. 58 (11): 3600-8.
5. Sun J. et al., 2010, Cancer Immunol Immunother. 59 (8): 1163-71.

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