

Recombinant Human CD276 / B7-H3, Biotinylated

Catalog Number: 11188-H08H-B



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General Information

Gene Name Synonym:

CD276, PSEC0249, 4Ig-B7-H3, B7-H3, B7H3

Protein Construction:

A DNA sequence encoding the human CD276 (Q5ZPR3-1) extracellular domain (Met1-Thr461) was expressed, with a polyhistidine tag at the C-terminus. The purified protein was biotinylated in vitro.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

mMB/mMP: 1.89

Endotoxin:

< 1.0 EU per µg 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: Leu 29

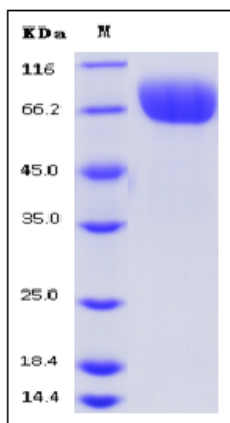
Molecular Mass:

The recombinant human CD276 consists of 444 amino acids and predicts a molecular mass of 48 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhCD276 is approximately 73 kDa due to glycosylation

Formulation:

Lyophilized from a 0.2µm filtered solution of PBS, pH 7.4, 5% trehalose, 5% mannitol.

SDS-PAGE:



Usage Guide

Storage:

Store the sample at -20°C- -70°C for long term although the lyophilized protein is stable at room temperature for several days. Store the reconstitution sample under sterile conditions at -70°C.

Avoid repeated freeze-thaw cycles.

Reconstitution:

It is recommended that sterile water (200uL) be added to the vial to prepare a stock solution of 0.25mg/mL. Concentration is measured by UV-Vis

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.
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3. Suh WK. et al., 2003, Nat Immunol. 4(9): 899-906.
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5. Sun J. et al., 2010, Cancer Immunol Immunother. 59(8): 1163-71.