Human CD276 / B7-H3 Protein (His Tag), Biotinylated

Catalog Number: 11188-H08H-B

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

4Ig-B7-H3; B7-H3; B7H3; B7RP-2

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: HEK293 Cells

QC Testing

Purity: ≥ 97 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC.

Bio Activity:

Immobilized Anti-B7-H3 Antibody, IgG1 Kappa at 2 μg/mL (100 μL/well) can bind Recombinant Human CD276 / B7-H3 Protein (His Tag), Biotinylated (Cat: 11188-H08H-B), the EC50 is 3.6-12 ng/mL.

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 ℃

Predicted N terminal: Leu 29

Molecular Mass:

The recombinant human CD276 consists of 444 amino acids and predictes 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.

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:

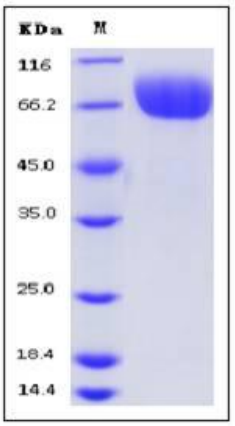
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

B7-H3 is a member of the B7 family of immune regulatory ligands that is thought to attenuate peripheral immune responses through co-inhibition. It plays an important role in adaptive immune responses, and was shown to either promote or inhibit T-cell responses in various experimental systems. 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. B7-H3 is a novel protein structurally related to the B7 family of ligands by the presence of a single set of immunoglobulin-V-like and immunoglobulin-C-like (VC) domains. Previous studies have correlated its overexpression with poor prognosis and decreased tumor-infiltrating lymphocytes in various carcinomas including uterine endometrioid carcinomas, and mounting evidence supports an immuno-inhibitory role in ovarian cancer prognosis. Recently, B7-H3 expression has been reported in several human cancers indicating an additional function of B7-H3 as a regulator of antitumor immunity.

References

1.Suh WK, *et al.* (2004) The immune regulatory protein B7-H3 promotes osteoblast differentiation and bone mineralization. Proc Natl Acad Sci U S A. 101(35): 12969-73. 2.Waschbisch A, *et al.* (2008) Human muscle cells express the costimulatory molecule B7-H3, which modulates muscle-immune interactions. Arthritis Rheum. 58(11): 3600-8. 3.Loos M, *et al.* (2010) B7-h3 and its role in antitumor immunity. Clin Dev Immunol. 2010: 683875.