

B7-H3 Protein, Human, Recombinant (His)

General Information

Synonyms:	CD276 molecule;B7-H3;4Ig-B7-H3;B7RP-2;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. Predicted N terminal: Leu 29
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q5ZPR3-1
Molecular Weight:	48 kDa (predicted); 68 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Immobilized Anti-Human B7H3 antibody, human IgG1 at 2 µg/mL (100 µL/well) can bind Recombinant Human B7-H3 / CD276 Protein (ECD,His Tag), the EC50 is 2.5-7.5 ng/mL.
Purity:	≥ 98 % as determined by SDS-PAGE ≥ 90 % as determined by SEC-HPLC.
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:	Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.
Stability & Storage:	It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots. <small>Actual storage temperature shall be subject to the COA.</small>
Shipping:	In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

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. Cancer Immunotherapy Co-inhibitory Immune Checkpoint Targets Immune Checkpoint Detection: Antibodies Immune Checkpoint Detection: ELISA Antibodies Immune Checkpoint Detection: FCM Antibodies Immune Checkpoint Detection: ICC Antibodies Immune Checkpoint Detection: IP Antibodies Immune Checkpoint Detection: WB Antibodies Immune Checkpoint Targets Immunotherapy Targeted Therapy

Reference

- 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.
- 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.
- Loos M, et al. (2010) B7-h3 and its role in antitumor immunity. *Clin Dev Immunol.* 2010: 683875.
- Zang X, et al. (2010) Tumor associated endothelial expression of B7-H3 predicts survival in ovarian carcinomas. *Mod Pathol.* 23(8): 1104-12.
- Sun J, et al. (2010) Clinical significance and regulation of the costimulatory molecule B7-H3 in human colorectal carcinoma. *Cancer Immunol Immunother.* 59(8): 1163-71.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481