

B7-H3 Protein, Human, Recombinant (His), PE-Labeled

General Information

Synonyms: B7H3;B7-H3;4Ig-B7-H3;PSEC0249;UNQ309/PRO352;B7RP-2

Protein Construction: A DNA sequence encoding the human B7-H3 (Q5ZPR3-1) (Met1-Thr461) was expressed with a polyhistidine tag at the C-terminus. The protein is site-specifically labeled with PE (Excitation= 495 - 566 nm, Emission Max.= 575 nm).

Species: Human

Expression Host: HEK293 Cells

Accession: Q5ZPR3-1

Molecular Weight: 50 kDa (predicted)

QC Testing

1. 5e5 of 293-CAR cells expressing the anti-B7-H3 scFv can be directly stained with 100 μ L (2 μ L stock solution diluted to 100 μ L FCM buffer) of B7-H3 Protein, Human, Recombinant (His), PE-Labeled (Cat#TMPY-07061) and the percentage of CAR-expressing cells can be detected by flow cytometry. Non-transduced 293 cells was used as a control (QC tested).

2. 5e5 of PBMCs can be stained with anti-CD3 antibody and B7-H3 Protein, Human, Recombinant (His), PE-Labeled (Cat#TMPY-07061) and detected by flow cytometry (QC tested).

Biological Activity: 3. Flow cytometric analysis of anti-B7-H3 CAR expression. HEK293 cells were lentivirally transduced with anti-B7-H3 CAR. Flow cytometric analysis was performed with a negative control protein and B7-H3 Protein, Human, Recombinant (His), PE-Labeled (Cat#TMPY-07061), respectively. Non-transduced 293 cells were used as a control (left).

4. Binding activity of PE-conjugated B7-H3 protein to PBMC cells. PBMC cells were stained with anti-CD3 antibody and B7-H3 Protein, Human, Recombinant (His), PE-Labeled (Cat#TMPY-07061) and detected by flow cytometry. PBMC cells stained with anti-CD3 antibody were used as a control (left).

Endotoxin: < 1.0 EU/ μ g of the protein as determined by the LAL method.

Formulation: This product is Lyophilized from sterile PBS, 0.2% BSA, pH 7.4. Please contact us for any concerns or special requirements. Please refer to the specific buffer information in the hardcopy of datasheet or the lot-specific COA.

Preparation and Storage

Reconstitution:

Please refer to the lot-specific COA.

Stability & Storage:

Twelve months from date of receipt at -20°C to -70°C in lyophilized form and 3 months at -70°C under sterile conditions after reconstitution. Protect from prolonged exposure to light and avoid repeated freeze-thaw cycles.

Actual storage temperature shall be subject to the COA.

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 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

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