

B7-H3 Protein, Human, Recombinant (His), AF488-Labeled

General Information

Synonyms:	B7H3;B7-H3;PSEC0249;4Ig-B7-H3;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 AF 488 (Excitation Max.= 495 nm, Emission Max.= 519 nm).
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q5ZPR3-1
Molecular Weight:	50 kDa (predicted)

QC Testing

Biological Activity:	<p>1.5e5 of 293-CAR cells expressing the anti-B7-H3 scFv can be directly stained with 100 µL (2 µL stock solution diluted to 100 µL FCM buffer) of B7-H3 Protein, Human, Recombinant (His), AF488-Labeled (Cat#TMPY-07059) 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), AF488-Labeled (Cat#TMPY-07059) and detected by flow cytometry (QC tested).
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), AF488-Labeled (Cat#TMPY-07059), 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), AF488-Labeled (Cat#TMPY-07059) and detected by flow cytometry. PBMC cells stained with anti-CD3 antibody were used as a control (left).</p>
Purity:	≥ 90% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	This product is Lyophilized from sterile PBS, 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 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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