

## B7-H3 Protein, Human, Recombinant (His), AF647-Labeled

### General Information

Synonyms:	B7-H3;UNQ309/PRO352;4lg-B7-H3;B7H3;PSEC0249;B7RP-2
Protein Construction:	A DNA sequence encoding the extracellular domain (Met 1-Thr 461) of human B7-H3 (Q5ZPR3-1) was expressed with a C-terminal polyhistidine tag. The protein is site-specifically conjugated with AF 647 (Excitation Max.= 655 nm, Emission Max.= 680 nm).
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q5ZPR3-1
Molecular Weight:	50 kDa (predicted)

### QC Testing

Biological Activity:	<p>1. Flow cytometric analysis of anti-B7-H3 CAR expression. 293 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), AF647-Labeled (Cat#TMPY-07060), respectively. Non-transduced 293 cells were used as a control (left).&lt;br&gt;</p> <p>2. Binding activity of AF 647-conjugated B7-H3 protein to PBMC cells. PBMC cells were stained with anti-CD3 antibody and B7-H3 Protein, Human, Recombinant (His), AF647-Labeled (Cat#TMPY-07060) 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, 5% Trehalose, 5% Mannitol, 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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