# Data Sheet (Cat.No.TMPY-02658)

TargetMol

## B7-H4 Protein, Mouse, Recombinant (hFc)

### General Information

Synonyms: B7h4;BC032925;B7x;B7s1;V-set domain containing T cell activation inhibitor 1

Protein Construction: Phe29-Pro258

Species: Mouse

Expression Host: HEK293 Cells

Accession: AAH32925.1

Molecular Weight: 52.2 kDa (predicted); 70-90 kDa (reducing condition, due to glycosylation)

### QC Testing

Biological Activity: Immobilized Anti-Human B7-H4 mAb at 2 μg/ml (100 μl/well) can bind Mouse B7-H4-Fc. Biotinylated by NHS-biotin prior to testing The ED50 of Mouse B7-H4-Fc is 4.11 ng/ml.

Purity: > 95 % as determined by SDS-PAGE

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

Formulation: Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.

### Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

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.

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

V-set domain-containing T-cell activation inhibitor 1, also known as B7X, B7H4, B7S1, and VTCN1, is a single-pass type-III membrane protein belonging to the B7 family of costimulatory proteins. These proteins are expressed on the surface of antigen-presenting cells and interact with ligands on T lymphocytes. They provide costimulatory signals that regulate T cell responses. A soluble form of B7H4 has also been detected. B7X / VTCN1 / B7H4 negatively regulates T-cell-mediated immune response by inhibiting T-cell activation, proliferation, cytokine production and development of cytotoxicity. When expressed on the cell surface of tumor macrophages, B7X /

VTCN1 / B7H4 plays an important role, together with regulatory T-cells(Treg), in the suppression of tumor-associated antigen-specific T-cell immunity. B7X / VTCN1 / B7H4 is also involved in promoting epithelial cell transformation. This membrane protein can be up-regulated by IL6 / interleukin-6 and IL10 / interleukin-10 and inhibited by CSF2 / GM-CSF and IL4 / interleukin-4 on antigen-presenting cells.Cancer ImmunotherapyCo-inhibitory Immune Checkpoint TargetsImmune CheckpointImmune Checkpoint Detection: AntibodiesImmune Checkpoint Detection: ELISA AntibodiesImmune Checkpoint Detection: IHC AntibodiesImmune Checkpoint ProteinsImmune Checkpoint TargetsImmunotherapyTargeted Therapy

Reference

Zang X,et al.(2003) B7x: a widely expressed B7 family member that inhibits T cell activation. Proc Natl Acad Sci U S A. 100(18): 10388-92.

Suh WK,et al.(2006) Generation and characterization of B7-H4/B7S1/B7x-deficient mice. Mol Cell Biol. 26(17): 6403-11.

Zang X,et al.(2007) B7-H3 and B7x are highly expressed in human prostate cancer and associated with disease spread and poor outcome. Proc Natl Acad Sci U S A. 104(49):19458-63.



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