

### Synonym

B7-H4,VTCN1,B7S1,B7h.5

### Source

MABSol® Biotinylated Human B7-H4, His Tag, primary amine labeling (B74-H8222) is expressed from human HEK293 cells. It contains AA Phe 29 - Ala 258 (Accession # [NP\\_078902](#)). It is the biotinylated form of Human B7-H4, His Tag (Cat. No. B74-H5222).

Predicted N-terminus: Phe 29

### Molecular Characterization

B7-H4(Phe 29 - Ala 258)  
NP\_078902 Poly-his

This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 26.4 kDa. The protein migrates as 43-60 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Labeling

*The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with biotins using standard chemical labeling method. A standard biotin reagent (13.5 angstroms) is used in this product.*

### Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

### Endotoxin

Less than 1.0 EU per µg by the LAL method.

### Purity

>95% as determined by SDS-PAGE.

### Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

### Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

### Storage

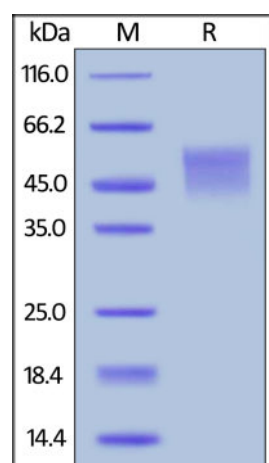
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

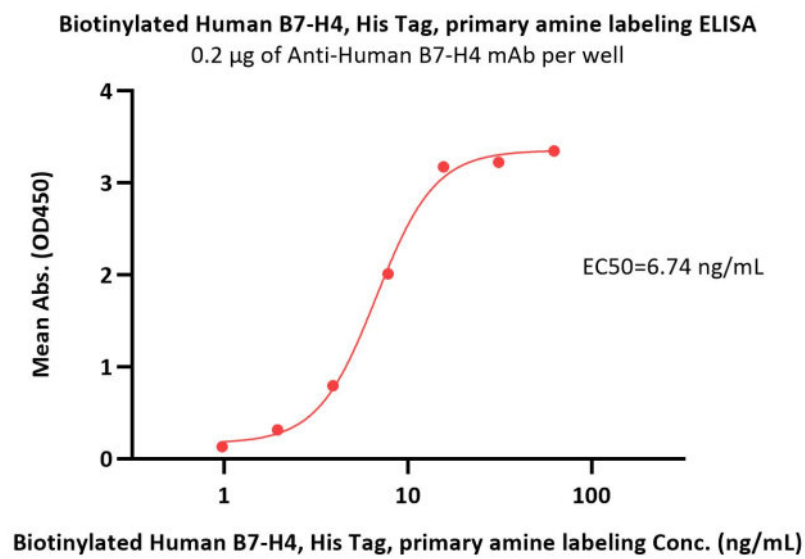
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

### SDS-PAGE



Biotinylated Human B7-H4, His Tag, primary amine labeling on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

### Bioactivity-ELISA



Immobilized Anti-Human B7-H4 mAb at 2 µg/mL (100 µL/well) can bind Biotinylated Human B7-H4, His Tag, primary amine labeling (Cat. No. B74-H8222) with a linear range of 1-8 ng/mL (QC tested).

## Background

V-set domain-containing T-cell activation inhibitor 1 (VTCN1) is also known as Immune costimulatory protein B7-H4, Protein B7S1, T-cell costimulatory molecule B7x, B7H4, which belongs to the immunoglobulin superfamily and BTN/MOG family. VTCN1 contains two Ig-like V-type (immunoglobulin-like) domains. The expression of VTCN1 is up-regulated by IL6 and IL10 and is inhibited by GM-CSF and IL4 on antigen-presenting cells (APCs). VTCN1 / B7-H4 negatively regulates T-cell-mediated immune response by inhibiting T-cell activation, proliferation, cytokine production and development of cytotoxicity. VTCN1 involved in promoting epithelial cell transformation.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.