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

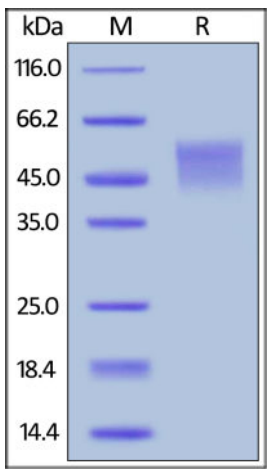
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

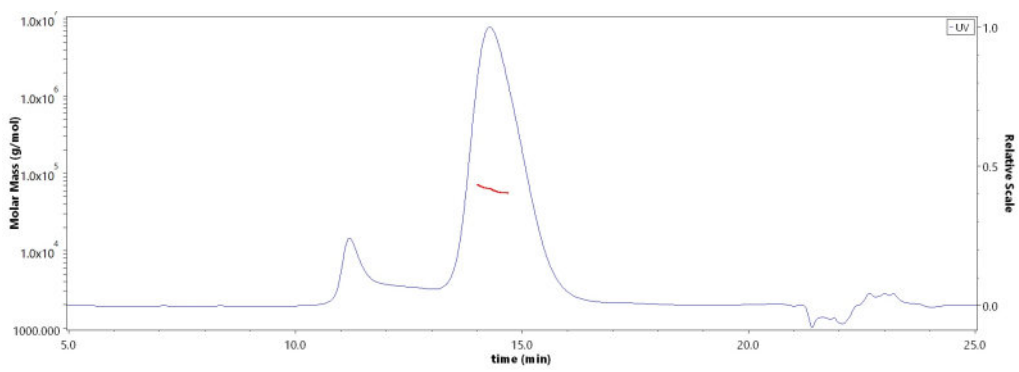
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



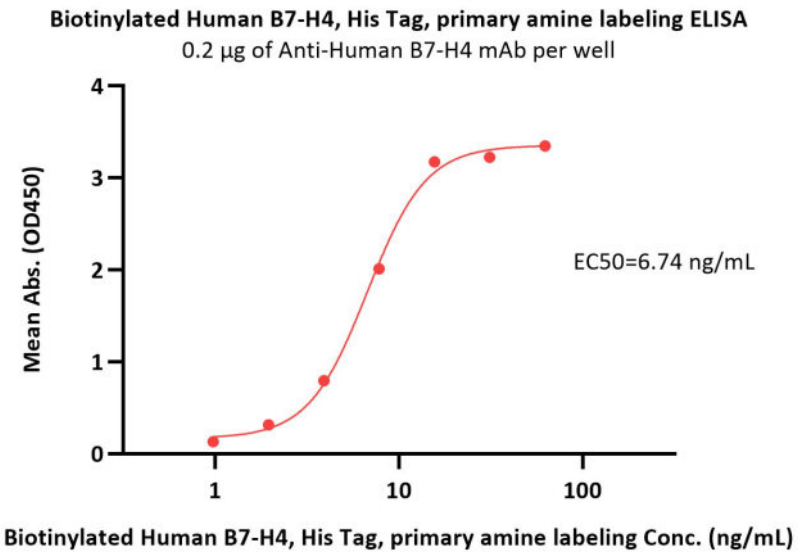
Biotinylated Human B7-H4, His Tag, primary amine labeling on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS



The purity of Biotinylated Human B7-H4, His Tag, primary amine labeling (Cat. No. B74-H8222) is more than 85% and the molecular weight of this protein is around 48-65 kDa verified by SEC-MALS.
Report

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