

# Biotinylated Human B7-H4 Protein, Avitag™, His Tag (recommended for biopanning) (MALS verified)

Catalog # B74-H82E2



BIOSYSTEMS  
**Acro**

## Synonym

B7-H4,VTCN1,B7S1,B7h.5

## Source

Biotinylated Human B7-H4 Protein, Avitag,His Tag(B74-H82E2) is expressed from human 293 cells (HEK293). It contains AA Phe 29 - Ala 258 (Accession # [NP\\_078902](#)).

Predicted N-terminus: Phe 29

## Molecular Characterization

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

This protein carries an Avi tag (Avitag™) at the C-terminus, followed by a polyhistidine tag.

The protein has a calculated MW of 28 kDa. The protein migrates as 43-57 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Labeling

*Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.*

## Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

## Application

B74-H82E2 works best for experiments that test the binding between B7-H4 and candidate antibodies, such as biopanning and other relevant assays.

## Purity

>90% 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

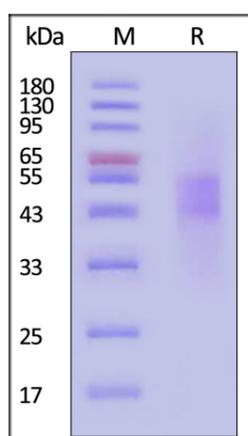
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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.

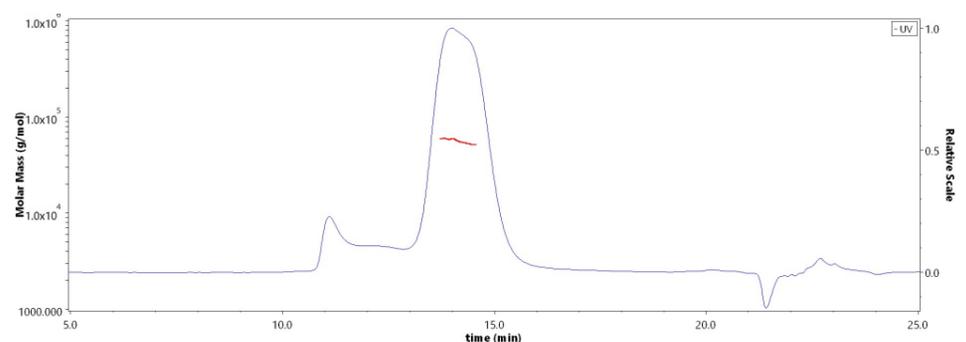
## SDS-PAGE



Biotinylated Human B7-H4 Protein, Avitag,His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

## Bioactivity-ELISA

## SEC-MALS



The purity of Biotinylated Human B7-H4 Protein, Avitag,His Tag (Cat. No. B74-H82E2) is more than 85% and the molecular weight of this protein is around 40-60 kDa verified by SEC-MALS.

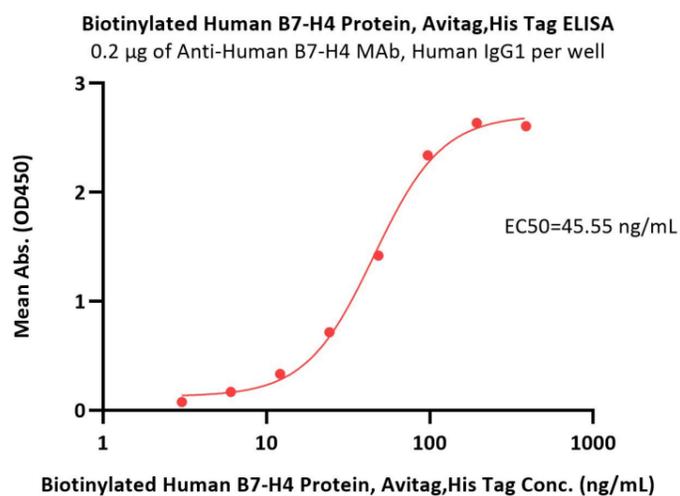
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4/18/2025



Immobilized Anti-Human B7-H4 MAb, Human IgG1 at 2 µg/mL (100 µL/well) can bind Biotinylated Human B7-H4 Protein, Avitag, His Tag (Cat. No. B74-H82E2) with a linear range of 3-48 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.

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