Biotinylated Human B7-H6 / NCR3LG1 Protein, His,Avitag™

Catalog # B76-H82E5

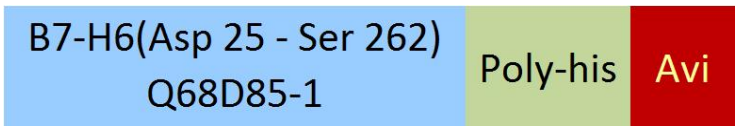
Synonym

B7-H6,NCR3LG1,B7 Homolog 6

Source

Biotinylated Human B7-H6, His,Avitag(B76-H82E5) is expressed from human 293 cells (HEK293). It contains AA Asp 25 - Ser 262 (Accession # Q68D85-1). Predicted N-terminus: Asp 25

Molecular Characterization



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

The protein has a calculated MW of 30.4 kDa. The protein migrates as 40-60 kDa 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.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

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

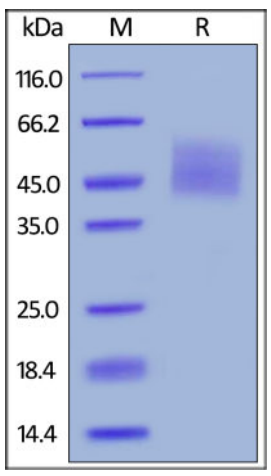
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

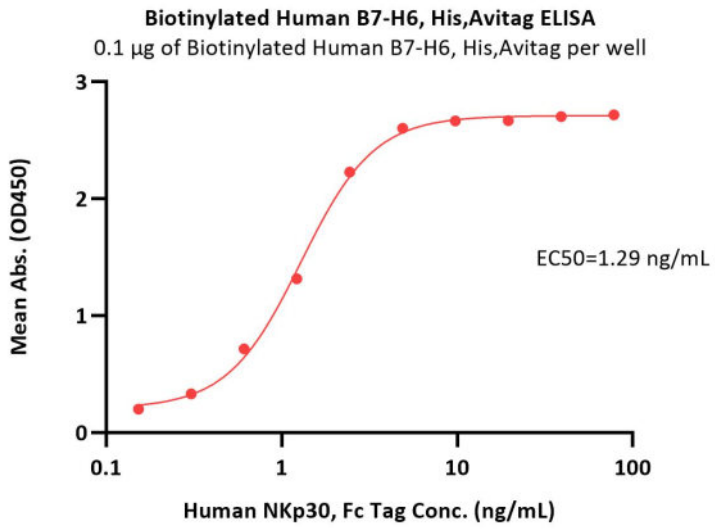
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



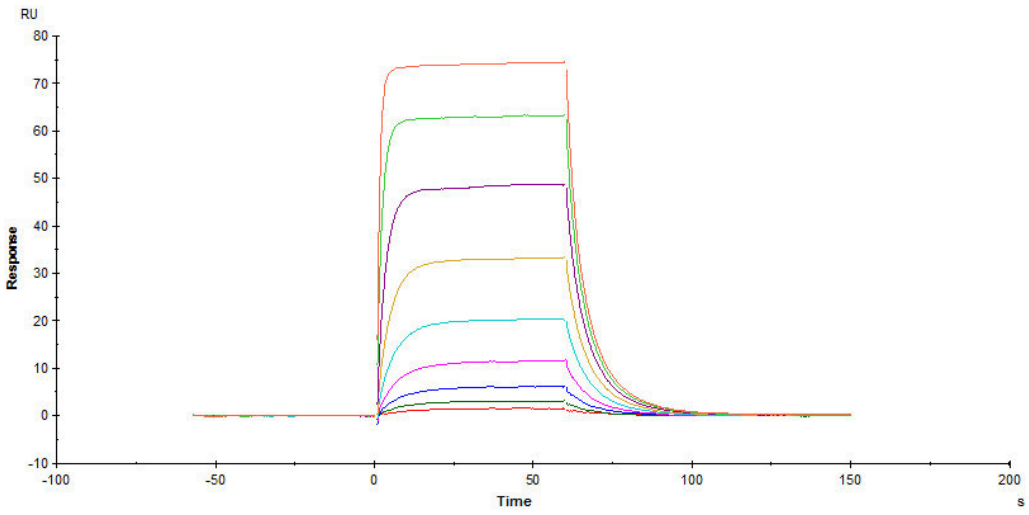
Biotinylated Human B7-H6, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-ELISA



Immobilized Biotinylated Human B7-H6, His,Avitag (Cat. No. B76-H82E5) at 1 μg/mL (100 μL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Human NKp30, Fc Tag (Cat. No. NC3-H5259) with a linear range of 0.2-2 ng/mL (Routinely tested).

Bioactivity-SPR



Biotinylated Human B7-H6, His,Avitag (Cat. No. B76-H82E5) immobilized on SA Chip can bind Human NKp30, His Tag (Cat. No. NC3-H5228) with an affinity constant of 0.213 μM as determined in a SPR assay (Biacore T200) (Routinely tested).

Background

The B7 family of genes is essential in the regulation of the adaptive immune system. one of which is the recently discovered B7H6. Humans and rats have a single B7H6 gene; however, many B7H6 genes were detected in a single large cluster in the Xenopus genome.
Chimeric antigen receptor (CAR) T-cell therapies have demonstrated durable and potentially curative therapeutic efficacy against B-cell leukemia in clinical trials. In this study, B7H6, a ligand for the NK cell activating receptor NKp30, was targeted to create a CAR that targets multiple tumor types. B7H6 is expressed on various primary human tumors, including leukemia, lymphoma and gastrointestinal stromal tumors, but it is not constitutively expressed on normal tissues.

Clinical and Translational Updates