



Synonym

TNFSF13B,BAFF,BLYS,CD257,DTL,TALL1,THANK,TNFSF20,ZTNF4,TALL-1

Source

Biotinylated Human BAFF Protein, Avitag,Fc Tag(BAF-H82F3) is expressed from human 293 cells (HEK293). It contains AA Ala 134 - Leu 285 (Accession # [AAH20674.1](#)).

Predicted N-terminus: Gly

Molecular Characterization

Avi	Fc(Thr 106 - Lys 330) P01857	BAFF(Ala 134 - Leu 285) AAH20674.1
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This protein carries an Avi tag (Avitag™) at the N-terminus, followed by a human IgG1 Fc tag.

The protein has a calculated MW of 44.9 kDa. The protein migrates as 50-55 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

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5 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

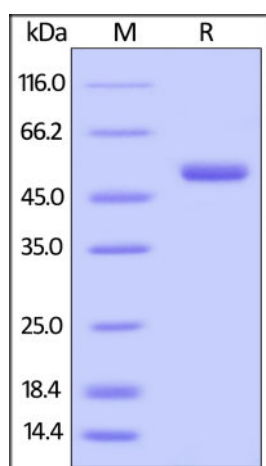
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

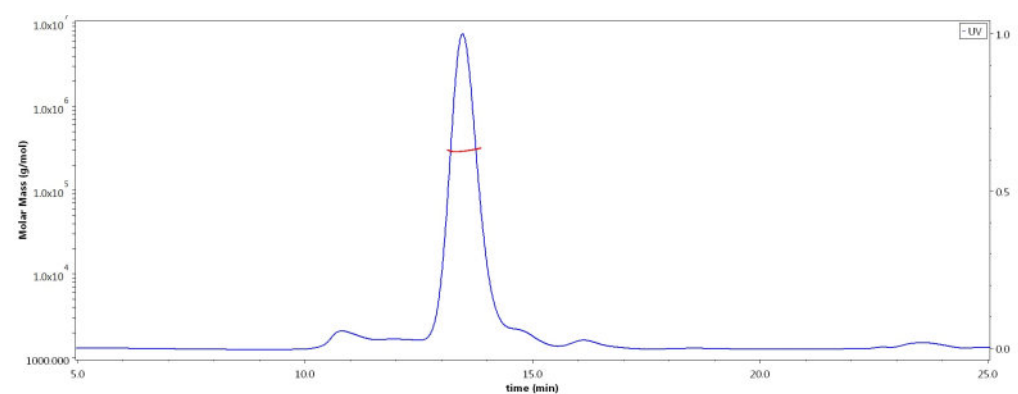
SDS-PAGE



Biotinylated Human BAFF Protein, Avitag,Fc Tag 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

SEC-MALS

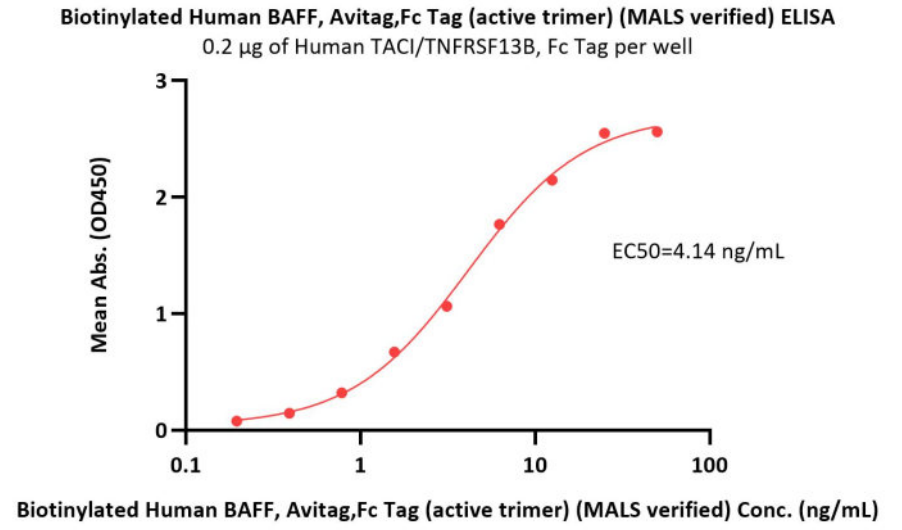
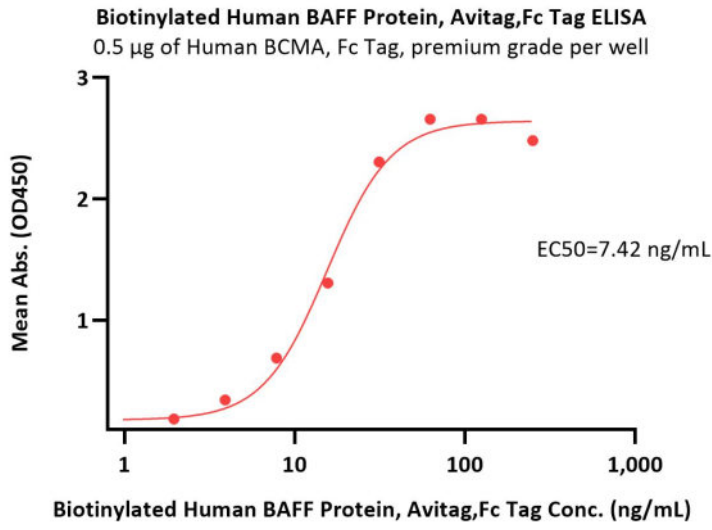


The purity of Biotinylated Human BAFF Protein, Avitag,Fc Tag (Cat. No. BAF-H82F3) is more than 85% and the molecular weight of this protein is around 280-320 kDa verified by SEC-MALS.

[Report](#)

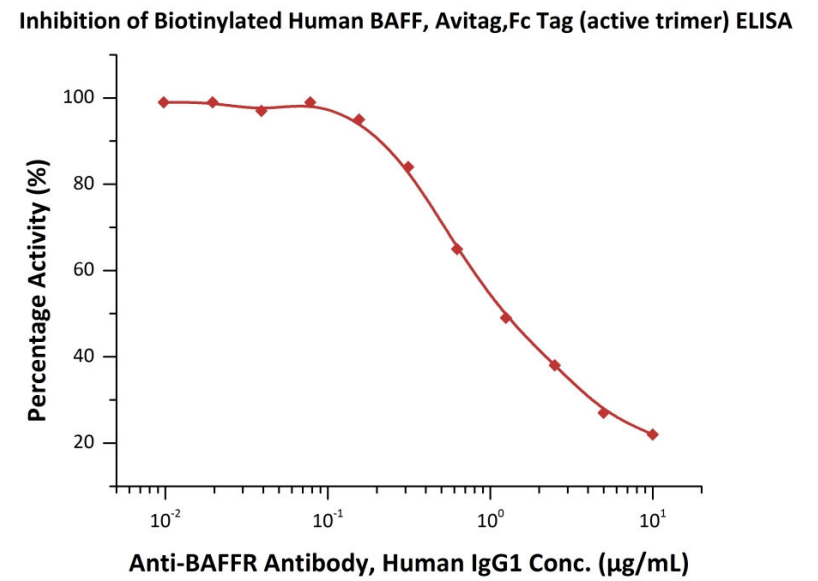
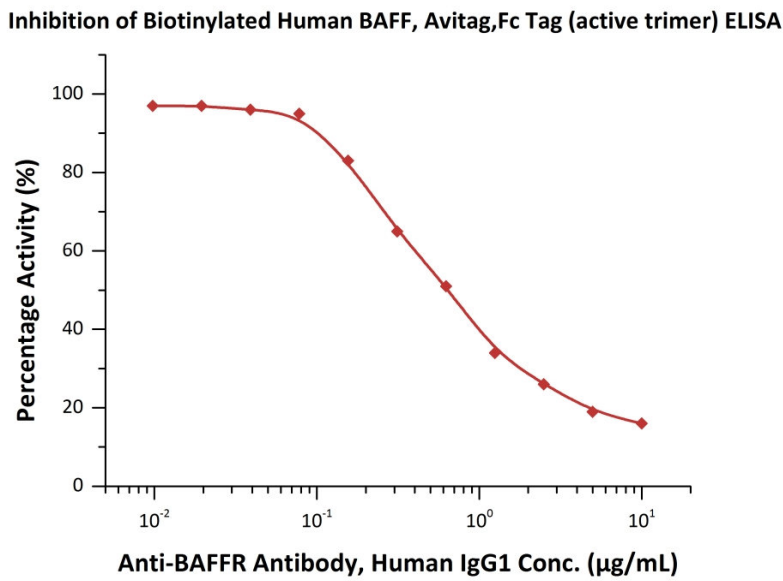
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Immobilized Human BCMA, Fc Tag (Cat. No. BC7-H5254) at 5 µg/mL (100 µL/well) can bind Biotinylated Human BAFF Protein, Avitag,Fc Tag (Cat. No. BAF-H82F3) with a linear range of 1.95-15.6 ng/mL (QC tested).

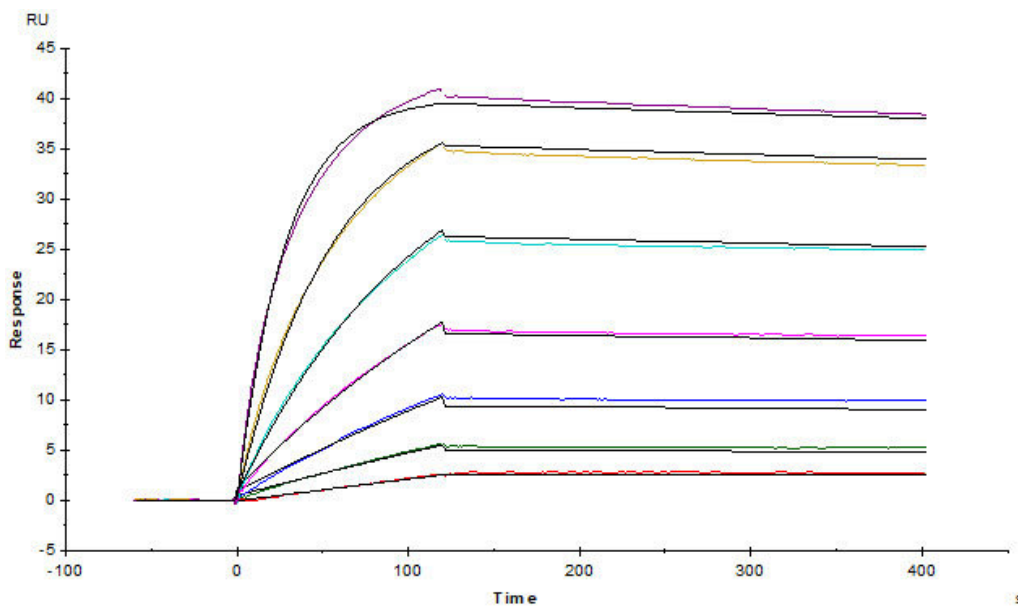
Immobilized Human TACI Protein, Fc Tag at 2 µg/mL (100 µL/well) can bind Biotinylated Human BAFF Protein, Avitag,Fc Tag (Cat. No. BAF-H82F3) with a linear range of 0.2-6 ng/mL (Routinely tested).



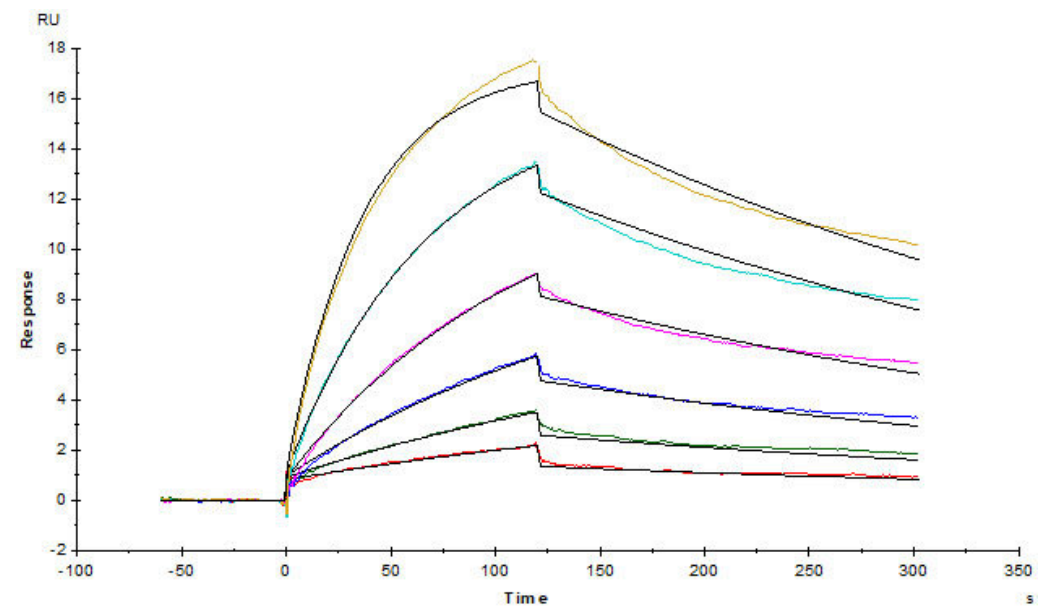
Serial dilutions of Anti-BAFFR Antibody, Human IgG1 were added into Human BAFFR Protein, Llama IgG2b Fc Tag (Cat. No. BAR-H5258): Biotinylated Human BAFF Protein, Avitag,Fc Tag (Cat. No. BAF-H82F3) binding reactions. The half maximal inhibitory concentration (IC50) is 0.8129 µg/mL (Routinely tested).

Serial dilutions of Anti-BAFFR Antibody, Human IgG1 were added into Human BAFFR, Fc Tag (Cat. No. BAR-H5257): Biotinylated Human BAFF Protein, Avitag,Fc Tag (Cat. No. BAF-H82F3) binding reactions. The half maximal inhibitory concentration (IC50) is 0.4692 µg/mL (Routinely tested).

Bioactivity-SPR



Immobilized Biotinylated Human BAFF Protein, Avitag,Fc Tag (Cat. No. BAF-H82F3) on SA Chip can bind Human TACI Protein, Fc Tag with an



Immobilized Biotinylated Human BAFF Protein, Avitag,Fc Tag (Cat. No. BAF-H82F3) on SA Chip can bind Human BAFFR, Fc Tag (Cat. No. BAR-

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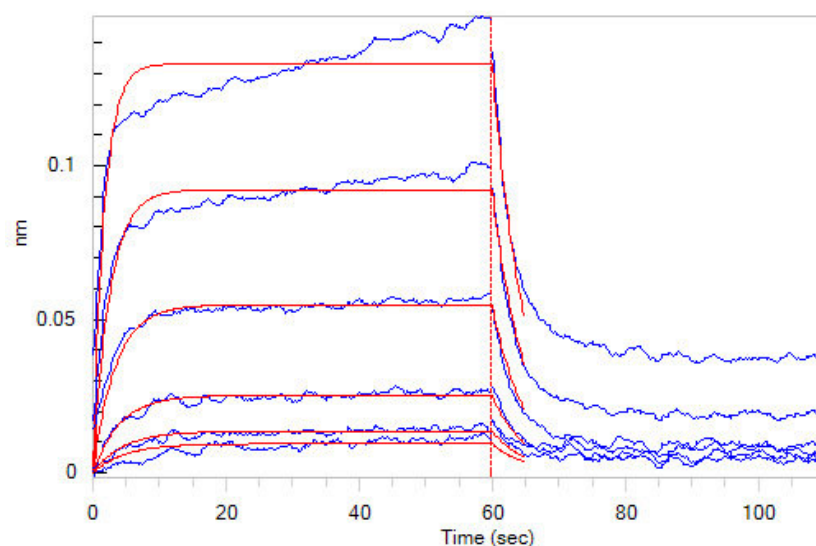




affinity constant of 0.988 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

H5257) with an affinity constant of 26.7 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

Bioactivity-BLI



Loaded Biotinylated Human BAFF Protein, Avitag,Fc Tag (Cat. No. BAF-H82F3) on SA Biosensor, can bind Human BCMA, His Tag (Cat. No. BCA-H522y) with an affinity constant of 1 μ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

B-cell activating factor (BAFF) is also known as tumor necrosis factor ligand superfamily member 13B , TNFSF13B, BAFF, B Lymphocyte Stimulator (BLyS) , cluster of differentiation 257 (CD257), DTL, TNF- and APOL-related leukocyte expressed ligand (TALL-1), THANK, TNFSF20, ZTNF4, and is a cytokine that belongs to the tumor necrosis factor (TNF) ligand family. This cytokine is a ligand for receptors TNFRSF13B/TACI, TNFRSF17/BCMA, and TNFRSF13C/BAFFR. This cytokine is expressed in B cell lineage cells, and acts as a potent B cell activator. It has been also shown to play an important role in the proliferation and differentiation of B cells. It is expressed as transmembrane protein on various cell types including monocytes, dendritic cells and bone marrow stromal cells. BAFF is the natural ligand of three unusual tumor necrosis factor receptors named BAFF-R, TACI, and BCMA, all of which have differing binding affinities for it. These receptors are expressed mainly on mature B lymphocytes (TACI is also found on a subset of T-cells and BCMA on plasma cells). TACI binds worst since its affinity is higher for a protein similar to BAFF, called a proliferation-inducing ligand (APRIL). BCMA displays an intermediate binding phenotype and will work with either BAFF or APRIL to varying degrees. Signaling through BAFF-R and BCMA stimulates B lymphocytes to undergo proliferation and to counter apoptosis. All these ligands act as heterotrimers (i.e. three of the same molecule) interacting with heterotrimeric receptors, although BAFF has been known to be active as either a hetero- or homotrimer. BAFF acts as a potent B cell activator and has been shown to play an important role in the proliferation and differentiation of B cells.

Clinical and Translational Updates

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