

Synonym

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

Source

Human BAFF Protein, Fc Tag (BAF-H5261) is expressed from human 293 cells (HEK293). It contains AA Glu 140 - Leu 285 (Accession # [Q9Y275-1](#)) trimer Design.
Predicted N-terminus: Pro

Molecular Characterization

This protein carries a human IgG1 Fc tag at the N-terminus.
The protein has a calculated MW of 76.7 kDa. The protein migrates as >170 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per µg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.
>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, 150 mM NaCl, pH7.5 with trehalose as protectant.
Contact us for customized product form or formulation.

Reconstitution

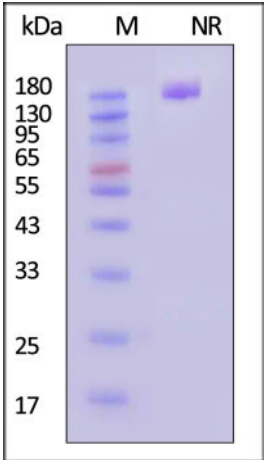
Please see Certificate of Analysis for specific instructions.
For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

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:

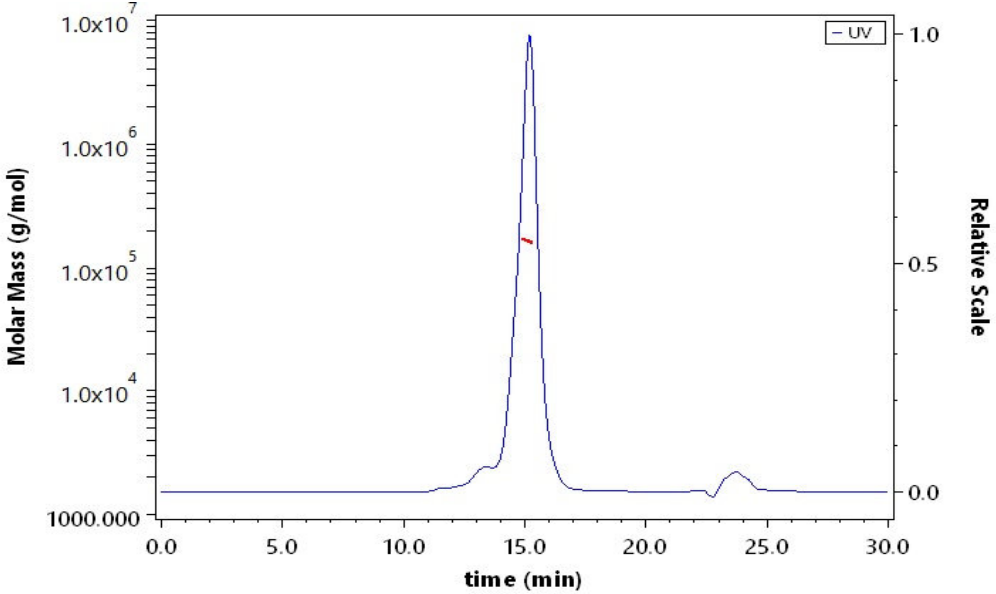
- 20°C to -70°C for 12 months in lyophilized state;
- 70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human BAFF Protein, Fc Tag on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

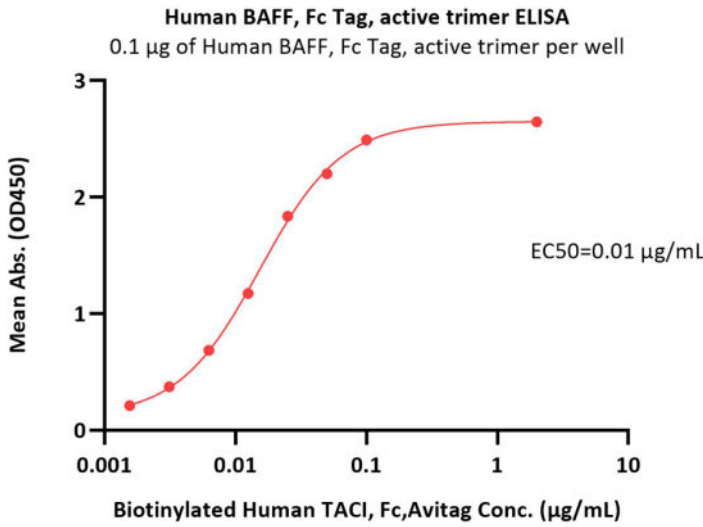
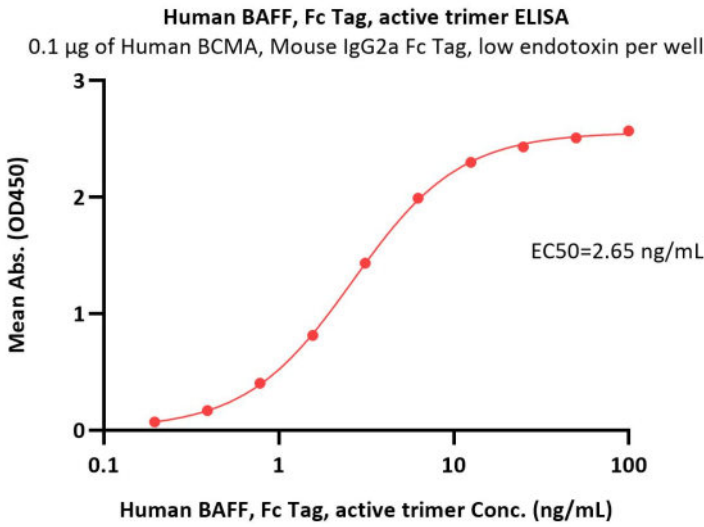
SEC-MALS



The purity of Human BAFF Protein, Fc Tag (Cat. No. BAF-H5261) is more than 90% and the molecular weight of this protein is around 150-180 kDa verified by SEC-MALS.
[Report](#)

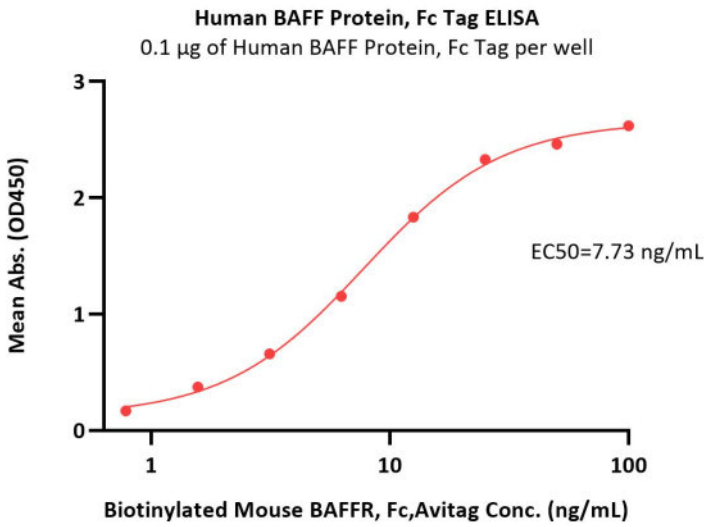
Bioactivity-ELISA





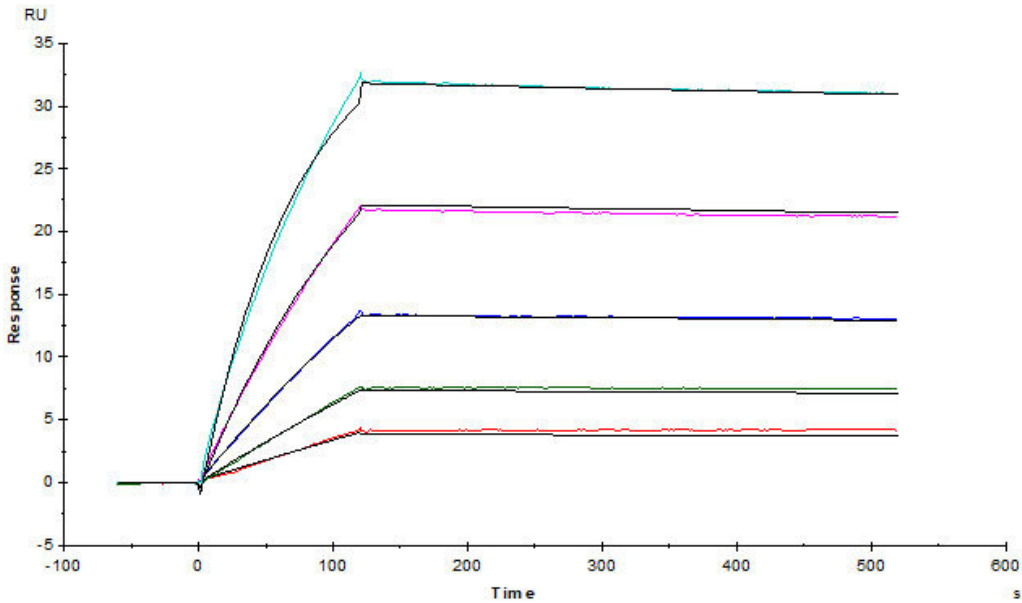
Immobilized Human BCMA, Mouse IgG2a Fc Tag (Cat. No. BCA-H5253) at 1 µg/mL (100 µL/well) can bind Human BAFF Protein, Fc Tag (Cat. No. BAF-H5261) with a linear range of 0.2-6 ng/mL (QC tested).

Immobilized Human BAFF Protein, Fc Tag (Cat. No. BAF-H5261) at 1 µg/mL (100 µL/well) can bind Biotinylated Human TACI, Fc,Avitag (Cat. No. TAI-H82F6) with a linear range of 0.002-0.05 µg/mL (Routinely tested).

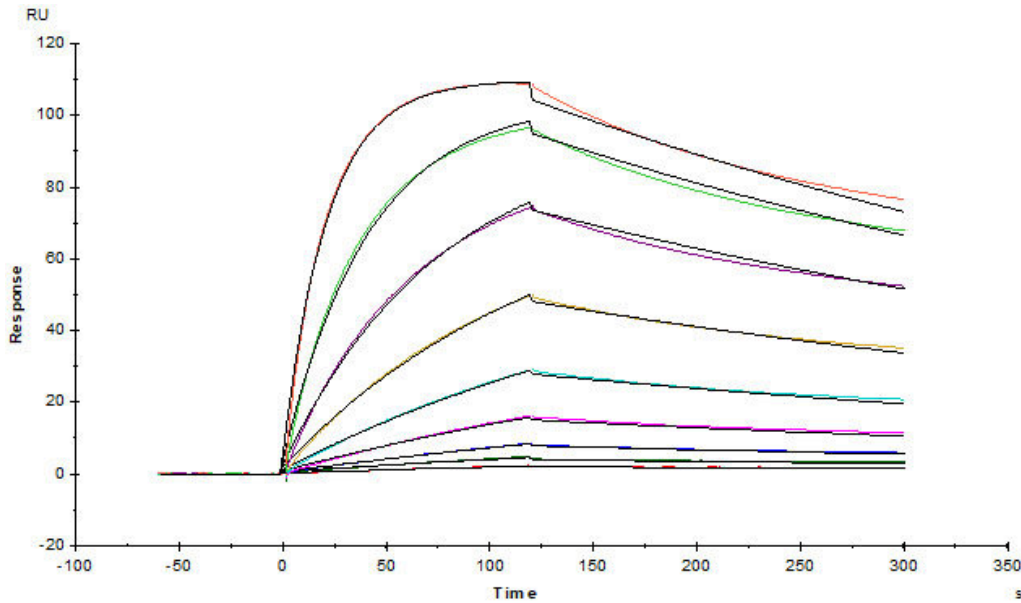


Immobilized Human BAFF Protein, Fc Tag (Cat. No. BAF-H5261) at 1 µg/mL (100 µL/well) can bind Biotinylated Mouse BAFFR, Fc,Avitag (Cat. No. BAR-M82F0) with a linear range of 0.4-25 ng/mL (Routinely tested).

Bioactivity-SPR



Immobilized Human BAFF Protein, Fc Tag (Cat. No. BAF-H5261) on CM5 Chip can bind Human TACI Protein, Fc Tag with an affinity constant of 0.658 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

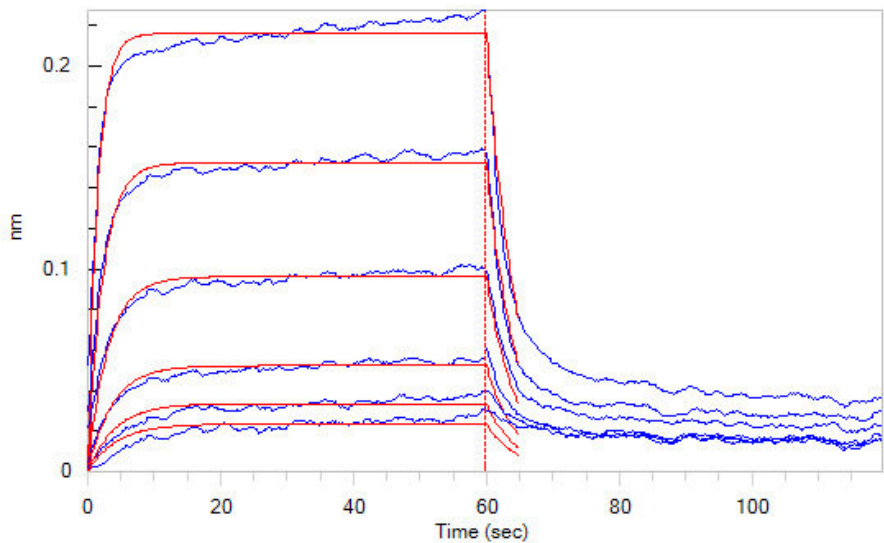


Immobilized Human BAFF Protein, Fc Tag (Cat. No. BAF-H5261) captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Human BAFFR Protein, Llama IgG2b Fc Tag (Cat. No. BAR-H5258) with an affinity



constant of 44.5 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

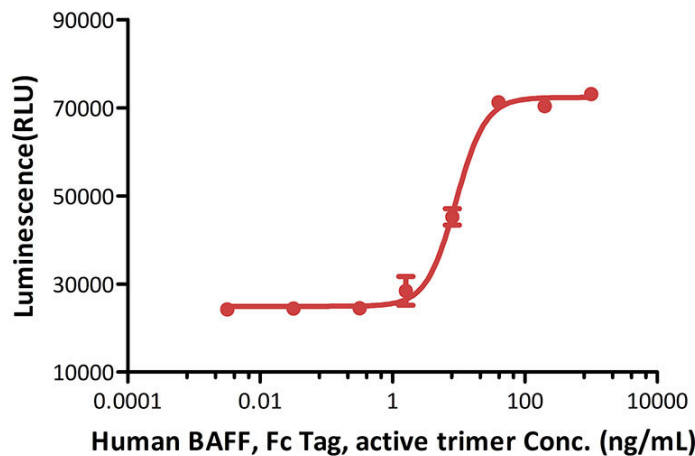
Bioactivity-BLI



Loaded Human BAFF Protein, Fc Tag (Cat. No. BAF-H5261) on Protein A Biosensor, can bind Biotinylated Human BCMA, His,Avitag (Cat. No. BCA-H82E4) with an affinity constant of 0.69 μ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Bioactivity-CELL BASE

Human BAFF, Fc Tag, active trimer stimulates proliferation of mouse spleen cells



Human BAFF Protein, Fc Tag (Cat. No. BAF-H5261) stimulates proliferation of mouse spleen cells. The EC50 for this effect is 4.91-9.81 ng/mL (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



Human BAFF / TNFSF13B / CD257 Protein, Fc Tag, active trimer (MALS verified)

Catalog # BAF-H5261



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.

