

**Synonym**

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

**Source**

Human BAFF Protein, His,Flag Tag (BAF-H52D4) is expressed from human 293 cells (HEK293). It contains AA Glu 140 - Leu 285 (Accession # [AAH20674.1](#)) trimer Design.

Predicted N-terminus: His

**Molecular Characterization**

This protein carries a polyhistidine tag at the N-terminus, followed by a flag tag

The protein has a calculated MW of 52.5 kDa. The protein migrates as 55-60 kDa under non-reducing (NR) condition (SDS-PAGE) due to Glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

**Formulation**

Lyophilized from 0.22 µm filtered solution in 25 mM MES, 150 mM NaCl, pH 6.0 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.*

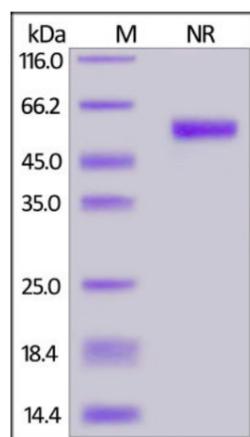
**Storage**

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

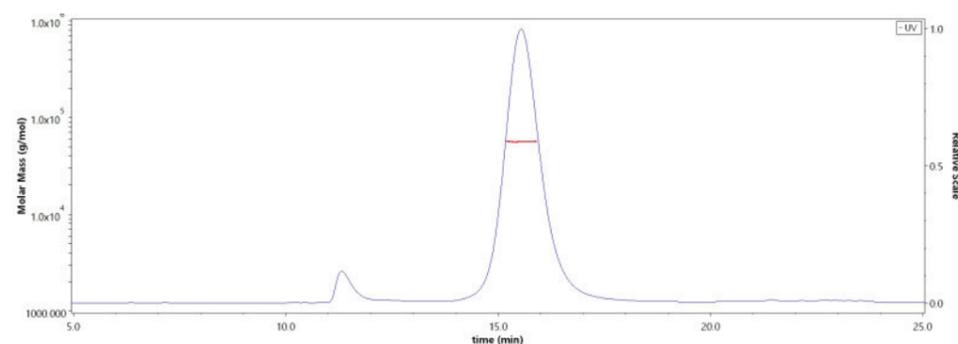
*Please avoid repeated freeze-thaw cycles.*

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.

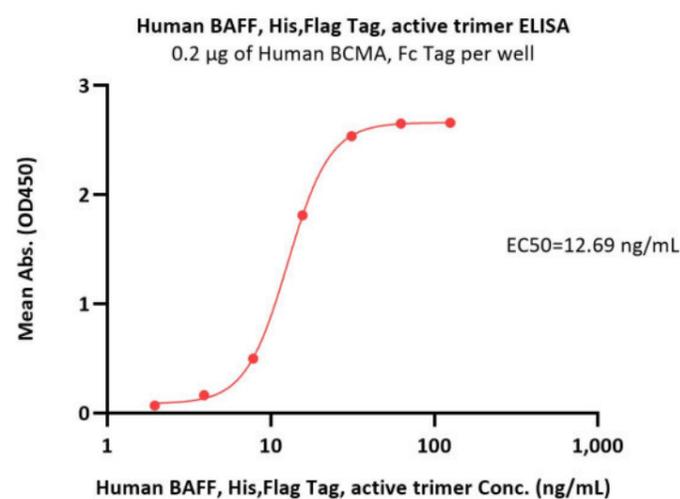
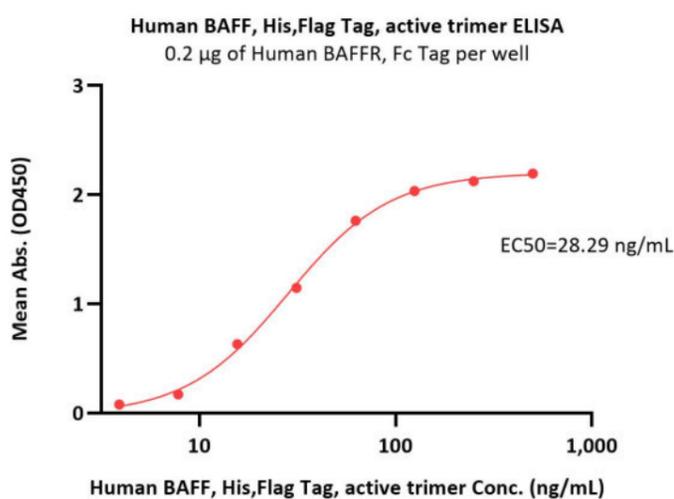
**SDS-PAGE**

Human BAFF Protein, His,Flag Tag on SDS-PAGE under non-reducing (NR) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

**Bioactivity-ELISA****SEC-MALS**

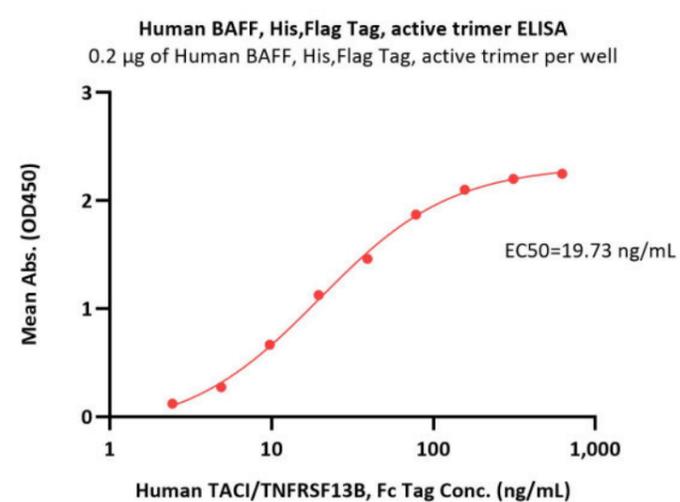
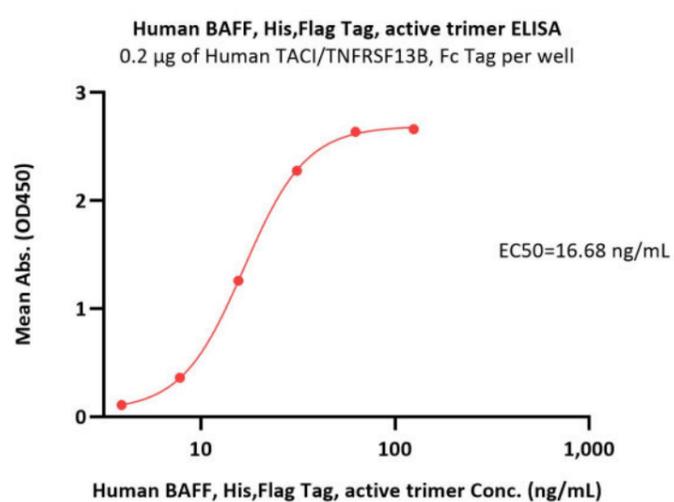
The purity of Human BAFF Protein, His,Flag Tag (Cat. No. BAF-H52D4) is more than 90% and the molecular weight of this protein is around 50-65 kDa verified by SEC-MALS.

[Report](#)



Immobilized Human BAFFR, Fc Tag (Cat. No. BAR-H5257) at 2 µg/mL (100 µL/well) can bind Human BAFF Protein, His,Flag Tag (Cat. No. BAF-H52D4) with a linear range of 4-63 ng/mL when detected by Monoclonal anti FLAG (HRP) antibody (QC tested).

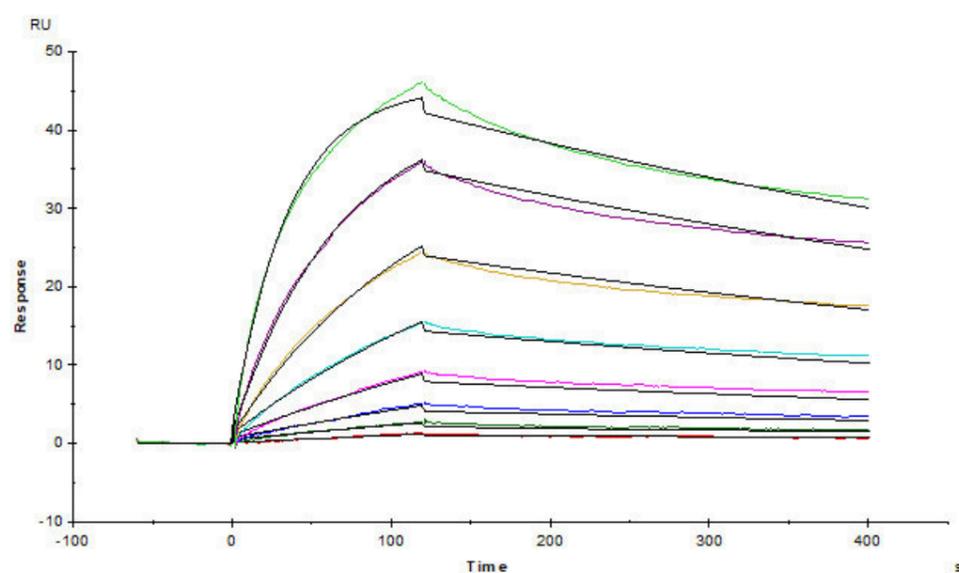
Immobilized Human BCMA, Fc Tag (Cat. No. BC7-H5254) at 2 µg/mL (100 µL/well) can bind Human BAFF Protein, His,Flag Tag (Cat. No. BAF-H52D4) with a linear range of 2-16 ng/mL when detected by Monoclonal anti FLAG (HRP) antibody (Routinely tested).



Immobilized Human TACI Protein, Fc Tag (Cat. No. TAI-H5256) at 2 µg/mL (100 µL/well) can bind Human BAFF Protein, His,Flag Tag (Cat. No. BAF-H52D4) with a linear range of 4-31 ng/mL when detected by Monoclonal anti FLAG (HRP) antibody (Routinely tested).

Immobilized Human BAFF Protein, His,Flag Tag (Cat. No. BAF-H52D4) at 2 µg/mL (100 µL/well) can bind Human TACI Protein, Fc Tag (Cat. No. TAI-H5256) with a linear range of 2-39 ng/mL (Routinely tested).

**Bioactivity-SPR**



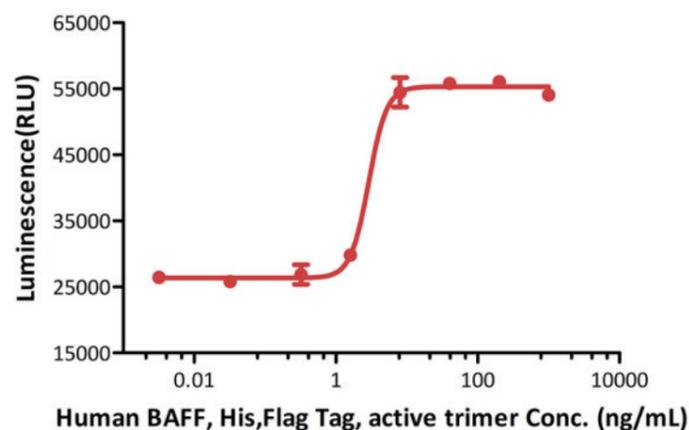
Human BAFFR Protein, Fc Tag (Cat. No. BAR-H5257) captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Human BAFF Protein,

Catalog # BAF-H52D4

His,Flag Tag (Cat. No. BAF-H52D4) with an affinity constant of 5.54 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

### Bioactivity-Bioactivity CELL BASE

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



Human BAFF Protein, His,Flag Tag (Cat. No. BAF-H52D4) stimulates proliferation of mouse spleen cells. The EC<sub>50</sub> for this effect is 1.97-2.90 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 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

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.