

Active Recombinant Human TNFSF13B protein, Fc-tagged, FITC-Labeled

Cat. No. TNFSF13B-1819H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	FITC-Labeled Human BAFF, Fc Tag is expressed from human HEK293 cells. It contains AA Ala 134 - Leu 285 (Accession # AAH20674.1). It is the FITC labeled form of Human BAFF, Fc Tag. Excitation source: 488 nm spectral line, argon-ion laser. Excitation Wavelength: 494 nm; Emission Wavelength: 518 nm. The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with FITC using standard chemical labeling method. The residual FITC is removed by molecular seive treatment during purification process. The FITC to protein molar ratio is 1.5-3.
Species	Human
Source	HEK293
ProteinLength	AA Ala 134 - Leu 285
Description	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

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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.

Predicted N Terminal	Glu
Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4, 10% trehalose.
Bio-activity	Immobilized Human BCMA, Fc Tag at 10 µg/mL (100 µL/well) can bind FITC-Labeled Human BAFF, Fc Tag with a linear range of 0.31-1.25 µg/mL.
Molecular Mass	This protein carries a human IgG1 Fc tag at the N-terminus. The protein has a calculated MW of 44.5 kDa. The protein migrates as 55 kDa under reducing (R) 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.

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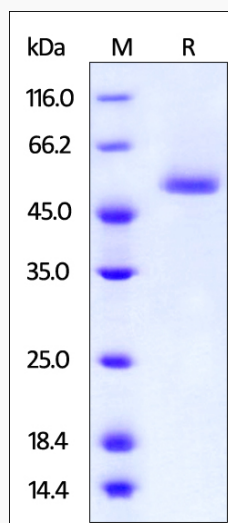
Storage	For long term storage, the product should be stored at lyophilized state at -20°C or lower. Please protect from light and avoid repeated freeze-thaw cycles. No activity loss is observed after storage at: 4-8°C for 12 months in lyophilized state; -70°C for 3 months under sterile conditions after reconstitution.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.
Conjugation	FITC
GENE INFORMATION	
Gene Name	TNFSF13B TNF superfamily member 13b [Homo sapiens (human)]
Official Symbol	TNFSF13B
Synonyms	DTL; BAFF; BLYS; CD257; TALL1; THANK; ZTNF4; TALL-1; TNLG7A; TNFSF20; ApoL related ligand TALL-1; B-cell-activating factor; B-lymphocyte stimulator; Delta4 BAFF; TNF and ApoL-related leukocyte expressed ligand 1; TNF homolog that activates apoptosis; delta BAFF; dendritic cell-derived TNF-like molecule; tumor necrosis factor (ligand) superfamily, member 13b; tumor necrosis factor (ligand) superfamily, member 20; tumor necrosis factor ligand 7A; tumor necrosis factor superfamily member 13b; tumor necrosis factor-like protein ZTNF4
Gene ID	10673
mRNA Refseq	NM_001145645.2
Protein Refseq	NP_001139117.1
UniProt ID	Q9Y275

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SDS-PAGE



FITC-Labeled Human BAFF, Fc Tag on SDS-PAGE under reducing (R) condition.
The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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