

Active Recombinant Mouse Tnfsf13b Protein, Fc-tagged, active trimer

Cat. No. Tnfsf13b-11015M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Mouse BAFF Protein, Fc Tag is expressed from human 293 cells (HEK293). It contains AA Arg164 - Leu309 (Accession # Q9WU72-1). This protein carries a human IgG1 Fc tag at the N-terminus. Predicted N-terminus: Pro
Species	Mouse
Source	HEK293
ProteinLength	164-309 aa
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 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

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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.

Form	Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, 150 mM NaCl, pH7.5 with trehalose as protectant.
Bio-activity	Immobilized Mouse BAFFR, His Tag at 2 µg/mL (100 µL/well) can bind Mouse BAFF Protein, Fc Tag with a linear range of 0.1-2 ng/mL.
Molecular Mass	The protein has a calculated MW of 43.1 kDa. The protein migrates as 48-53 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 1.0 EU/µg by the LAL method/rFC method.
Purity	>95% as determined by SDS-PAGE.
Storage	This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of

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0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.

GENE INFORMATION

Gene Name Tnfsf13b tumor necrosis factor (ligand) superfamily, member 13b [Mus musculus]

Official Symbol Tnfsf13b

Synonyms TNFSF13B; tumor necrosis factor (ligand) superfamily, member 13b; tumor necrosis factor ligand superfamily member 13B; B-cell-activating factor; b cell-activating factor; BAFF; BLyS; TALL1; THANK; zTNF4; TALL-1; TNFSF20; D8Ertd387e; MGC124060; MGC124061;

Gene ID 24099

mRNA Refseq NM_033622

Protein Refseq NP_296371

UniProt ID Q9WU72

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