

## Recombinant Mouse TNFSF13B protein, Mouse IgG2a Fc-tagged, low endotoxin

Cat. No. TNFSF13B-379M Lot. No. (See product label)

### SPECIFICATION

#### Product Overview

Recombinant Mouse TNFSF13B protein (Ala127-Leu309)(low endotoxin), fused to Mouse IgG2a Fc tag at N-terminus, was expressed in human 293 cells (HEK293).

#### Species

Mouse

#### Source

HEK293

#### ProteinLength

183

#### 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 plasma cells). TACI binds worst since its affinity is higher for a protein similar to

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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 um filtered solution in 50 mM Tris, 100 mM Glycine, pH7.5, 10% trehalose.

**Molecular Mass**

The protein has a calculated MW of 47.7 kDa. The protein migrates as 50 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 0.1 EU per ug by the LAL method.

**Purity**

>95% as determined by SDS-PAGE.

**Storage**

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

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

-20 centigrade to -70 centigrade for 12 months in lyophilized state;

-70 centigrade 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.

**GENE INFORMATION**

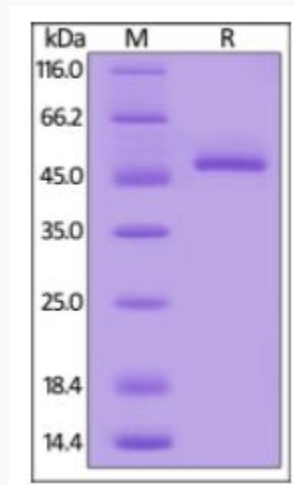
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<b>Gene Name</b>	TNFSF13B
<b>Official Symbol</b>	TNFSF13B
<b>Synonyms</b>	TNFSF13B; tumor necrosis factor (ligand) superfamily, member 13b; tumor necrosis factor ligand superfamily member 13B; B-cell-activating factor; b cell-activating factor; BAFF; BlyS; TALL1; THANK; zTNF4; TALL-1; TNFSF20; D8ErtD387e; MGC124060; MGC124061
<b>Gene ID</b>	24099
<b>mRNA Refseq</b>	NM_033622
<b>Protein Refseq</b>	NP_296371
<b>UniProt ID</b>	Q9WU72

**SDS-PAGE of  
TNFSF13B-379M**



Mouse BAFF, Mouse IgG2a Fc Tag, low endotoxin on SDS-PAGE under reducing

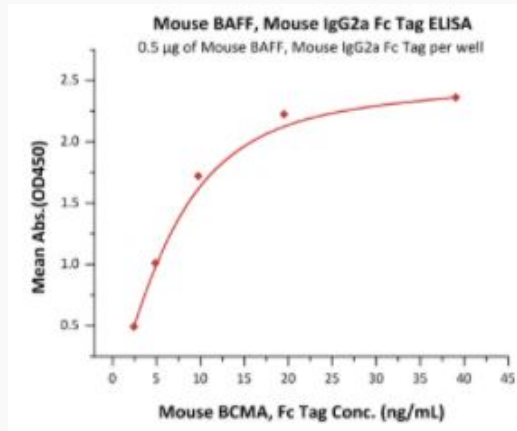
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(R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

**Bioactivity of  
TNFSF13B-379M**



Immobilized Mouse BAFF, Mouse IgG2a Fc Tag at 5 µg/mL (100 µL/well) can bind Mouse BCMA, Fc Tag with a linear range of 2-10 ng/mL (QC tested).

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