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## **BAFF**

Catalog # PVGS1203

## **Product Information**

Primary Accession O9Y275
Species Human

Sequence Ala134-Leu285

**Purity** > 95% as analyzed by SDS-PAGE

> 95% as analyzed by HPLC

Endotoxin Level

Expression System CHO

**Formulation** Lyophilized after extensive dialysis against PBS.

**Reconstitution** It is recommended that this vial be briefly centrifuged prior to opening to

bring the contents to the bottom. Reconstitute the lyophilized powder in

ddH<sub>2</sub>O or PBS up to 100 □g/ml.

**Storage & Stability** Upon receiving, this product remains stable for up to 6 months at lower than

-70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw

cycles.

## **Additional Information**

**Gene ID** 10673

Other Names Tumor necrosis factor ligand superfamily member 13B, B lymphocyte

stimulator, BLyS, B-cell-activating factor, BAFF, Dendritic cell-derived TNF-like molecule, TNF- and APOL-related leukocyte expressed ligand 1, TALL-1, CD257, Tumor necrosis factor ligand superfamily member 13b, membrane form, Tumor necrosis factor ligand superfamily member 13b, soluble form,

TNFSF13B, BAFF, BLYS, TALL1, TNFSF20, ZTNF4

**Target Background** B-cell activating factor, also known as BAFF, TALL-1, TNAK, and zTNF4, is a

member of theTNF ligand superfamily designated TNFSF13B. Produced by macrophages, dendritic cells, and T lymphocytes, BAFF promotes the survival of B cells and is essential for B cell maturation. BAFF binds to three TNF receptor superfamily members: B-cell maturation antigen (BCMA/TNFRSF17), transmembrane activator and calcium-modulator and cyclophilin ligand interactor (TACI/TNFRSF13B) and BAFF receptor (BAFF R/BR3/TNFRSF 13C). These receptors are type III transmembrane proteins lacking a signal peptide. Whereas TACI and BCMA bind BAFF and another TNF superfamily ligand, APRIL(a proliferation-inducing ligand), BAFF R selectively binds BAFF. The BAFF R extracellular domain lacks the TNF receptor canonical cysteine-rich domain

(CRD) and contains only a partial CRD with four cysteine residues. Human and mouse BAFF R share 56% as sequence identity. BAFF R is highly expressed in spleen, lymph node and resting B cells. It is also expressed at lower levels in activated B cell, resting CD4<sup>+</sup> T cells, thymus and peripheral blood leukocytes.

## **Protein Information**

Name TNFSF13B

**Synonyms** BAFF, BLYS, TALL1, TNFSF20, ZTNF4

**Function** Cytokine that binds to TNFRSF13B/TACI and TNFRSF17/BCMA.

TNFSF13/APRIL binds to the same 2 receptors. Together, they form a 2 ligands -2 receptors pathway involved in the stimulation of B- and T- cell function and the regulation of humoral immunity. A third B-cell specific BAFF-receptor (BAFFR/BR3) promotes the survival of mature B- cells and the B-cell response.

**Cellular Location** Cell membrane; Single-pass type II membrane protein

**Tissue Location** Abundantly expressed in peripheral blood Leukocytes and is specifically

expressed in monocytes and macrophages. Also found in the spleen, lymph node, bone marrow, T-cells and dendritic cells. A lower expression seen in placenta, heart, lung, fetal liver, thymus, and pancreas. Isoform 2 is expressed

in many myeloid cell lines

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