

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Human B Cell Activating Factor (rHuBAFF)

Catalog Number: PR1002

Source: Escherichia coli.

Quantity: 5µg/20µg/1.0mg

Description

B-cell activating factor (BlyS), also known as BAFF, TALL-1, TNAK, and zTNF4, is a TNF ligand superfamily member and has been 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 that lack 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% aa 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, in resting CD4⁺ T cells, in thymus and peripheral blood leukocytes.

Molecular Weight:

Approximately 17.0 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids.

Purity:

>95% by SDS-PAGE and HPLC analyses.

Biological Activity:

Measured in a cell proliferation assay using anti-IgM stimulated mouse B cells. The ED₅₀ for this effect is typically 0.5-

2ng/mL in the presence of 10 µg/mL of goat antimouse IgM µ chain, corresponding to a Specific Activity of $\square 5 \times 10^5$ IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2mm filtered concentrated solution in PBS, pH 7.0.

AA Sequence:

M A V Q G P E E T V T Q D C L Q L I A D S E T P T I Q
K G S Y T F V P W L L S F K R G S A L E E K E N K I L
V K E T G Y F F I Y G Q V L Y T D K T Y A M G H L I Q
R K K V H V F G D E L S L V T L F R C I Q N M P E T L
P N N S C Y S A G I A K L E E G D E L Q L A I P R E N A
Q I S L D G D V T F F G A L K L L

Endotoxin:

Less than 1EU/mg of rHuBAFF as determined by LAL method.

Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.

Storage:

This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one

MADE IN CHINA

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week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

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