

B Cell Activating Factor

Human, Recombinant (rHuBLys)

Expressed in *E. coli*

Cat. No. CRP0873

Lot. No. (See product label)

PRODUCT INFORMATION

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/TNFRSF13C). 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.

Amino-Acid Sequence: 153 aa, non-glycosylated

M. W. : 17,000Da

Recombinant: Expressed in *E. coli*.

Purity: >95% by SDS-PAGE and HPLC analyses.

Formulation: Lyophilized from a 0.2µm filtered concentrated (1mg/ml) solution in PBS, pH 7.0.

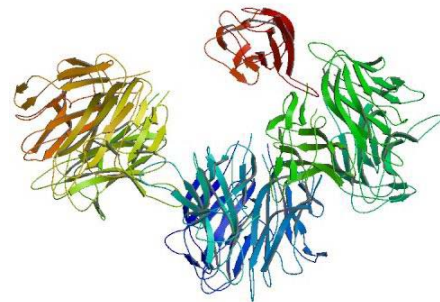
Biological Activity: Fully biologically active when compared to standard. The activity is determined by the dose-dependant stimulation of IL-8 production by human PBMC. The ED₅₀ for this effect is less than 10ng/ml.

Endotoxin: 1EU/Less than of rHuBLys 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 for several weeks 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 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.

FOR RESEARCH USE ONLY



[PDB](#) rendering based on 1jh5.

GENE INFORMATION

Gene Name: [TNFSF13B](#)

Synonyms: BAFF, BLYS, CD257, DTL, TALL-1, TALL1, THANK, TNFSF20, ZTNF4, ApoL related ligand TALL-1, B lymphocyte stimulator, CD257 antigen, Dendritic cell-derived TNF-like molecule, TNF and ApoL-related leukocyte expressed ligand 1, tumor necrosis factor-like protein ZTNF4; ApoL related ligand TALL-1; B cell-activating factor; B-cell activating factor; B-lymphocyte stimulator; TNF homolog that activates apoptosis; Tumor necrosis factor ligand superfamily member 13B; delta BAFF; dendritic cell-derived TNF-like molecule; tumor necrosis factor (ligand) superfamily, member 13b; tumor necrosis factor (ligand) superfamily, member 20

mRNA Refseq: [NM_006573.3](#)

Protein Refseq: [NP_006564.1](#)

MIM: [603969](#)

GeneID: [10673](#)

Uniprot ID: [Q9Y275](#)

Chromosome Location: 13q32-q34

Pathway: Cytokine-cytokine receptor interaction

Function: cytokine activity, tumor necrosis factor receptor binding.

REFERENCES

1. Nardelli B, Moore PA, Li Y, Hilbert DM. B lymphocyte stimulator (BLyS): a therapeutic trichotomy for the treatment of B lymphocyte diseases. *Leuk. Lymphoma* 2003; 43 (7): 1367-1373.
2. Zhou T, Zhang J, Carter R, Kimberly R. BLyS and B cell autoimmunity. *Curr. Dir. Autoimmun.* 2003; 6: 21-37.
3. Quartuccio L, Fabris M, Ferraccioli G. B lymphocyte stimulator (BLyS) and monocytes: possible role in autoimmune diseases with a particular reference to rheumatoid arthritis. *Reumatismo.* 2004; 56 (3): 143-146.

@ 2005-2008 Creative Biolabs. All rights reserved.

21 Brookhaven BLVD · Port Jefferson Station, NY 11776, USA
Technical Support: T: 631-871-5806 · F: 631-207-8356
E-mail: info@creative-biolabs.com
www.creative-biolabs.com