



Technical Data Sheet

Recombinant Human B Cell Activating Factor (rHu BLys)

Human B Cell Activating Factor

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.

Catalog Number:	RC214-15
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 17.0 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids.
Quantity:	5ug/20ug/1000ug
Purity:	>95% by SDS-PAGE and HPLC analyses.
Biological Activity:	Measured in a cell proliferation assay using anti-IgM stimulated mouse B cells. The ED ₅₀ for this effect is typically 0.5-2ng/mL in the presence of 10 µg/mL of goat antimouse IgM µ chain.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2µm filtered concentrated (1mg/ml) solution in PBS, pH 7.0.
AA Sequence:	MAVQGPEETV TQDCLQLIAD SETPTIQKGS YTFVPWLLSF KRGSAL EEKE NKILVKETGY FFIYGQVLYT DKTYAMGHLI QRKKVHVFGD ELSLVTFRFC IQNMPETLPN NSCYSAGIAK LEEGDELQLA IPRENAQISL DGDVTFFGAL KLL
Endotoxin:	Less than 1EU/µg of rHuBLys as determined by LAL method.



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- 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 $\leq -20^{\circ}\text{C}$. 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 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 Bio Basic Canada Inc for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.