

Recombinant Human B cell Activating Factor/TNFSF13B

#R00080

Size: 5 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

B-cell activating factor (BAFF), also known as Blys, 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 % a.a. 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.

AA Sequence

MAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWL
LSFKRGSAALEEKENKILVKETGYFFIYGQVLYTDKTYA
MGHLIQRKKVHVFGDELSLVTLFRCIQNMPETLPNNS
CYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGAL
KLL

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.

Product Specification	
Synonyms	TNFSF13B, TNFSF20, TALL-1, BLys, THANK, B cell Activating Factor belonging to the TNF family
Accession	Q9Y275
GeneID	10673
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 17.2 kDa, a single non-glycosylated polypeptide chain containing 153 amino acids.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a mouse splenocyte survival assay is

	0.5-2 µg/ml.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.0.
Endotoxin	Less than 1 EU/µg of rHuBAFF as determined by LAL method.