Recombinant Human B Cell Activating Factor (rhBAFF)
Catalog Number: 103-04

Description	B-cell activating factor (BAFF) is a TNF ligand superfamily member and is 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.
Synonyms	BLys, TNFSF13B, TALL-1, CD257, THANK, and zTNF4
AA Sequence	MAVQGPEETV TQDCLQLIAD SETPTIQKGS YTFVPWLLSF KRGSALEEKE NKILVKETGY FFIYGQVLYT DKTYAMGHLI QRKKVHVFGD ELSLVTLFRC IQNMPETLPN NSCYSAGIAK LEEGDELQLA IPRENAQISL DGDVTFFGAL KLL
Source	*Escherichia coli*
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	The ED_{50} is 0.5-2ng/mL in the presence of 10 μg/mL of goat antimouse IgM μ chain, as determined by cell proliferation assay using anti-IgM stimulated mouse B cells.
Physical Appearance	White lyophilized powder.
Formulation	Lyophilized from a 0.2μm filtered concentrated (1mg/ml) solution in PBS, pH 7.0.
Endotoxin	< 1EU/μg of growth factor as determined by LAL method.
Reconstitution	Reconstitute in sterile distilled water containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL.
Storage	Store at -20°C after receiving. Upon reconstitution, store at 2-8°C for up to one week. For maximal stability, aliquot and store at -20°C. Avoid repeated freeze/ thaw cycles.
Usage	This product is for research use only. It is not approved for use in humans, animals, or *in vitro* diagnostic procedures.