

BAFF, Human

Cat. No.: Z02976-10

Size: 10.0 ug

Synonyms: BAFF, BLYS, CD257, TALL1, THANK, ZTNF4, TALL-1, TNFSF20, TNFSF13B, B-cell Activating Factor

Description:

B-cell activating factor, also known as BAFF, TALL-1, TNAK, and zTNF4, is a member of the TNF ligand superfamily 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 lacking 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, resting CD4⁺ T cells, thymus and peripheral blood leukocytes.

Amino Acid Sequence:

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00001 AVQGP EETVT QDCLQLIADS ETPTIQKGSY TFPWLLSFK
00041 RGSAL EEEKEN KILVKETGYF FIYQQVLYTD KTYAMGHLIQ
00081 RKKVHVFGDE LSLVTLFRCI QNMPETLPNN SCYSAGIAKL
00121 EEGDELQLAI PRENAQISLD GDVTFFGALK LL
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Source: CHO

Species: Human

Biological Activity: ED₅₀ < 20 ng/ml, determined by dose-dependent mitogenic activity on human RPMI 8226 cells, corresponding to a specific activity of >5.0 x 10⁴ units/mg.

Molecular Weight: 17kDa, observed by non-reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O or PBS at 100 µg/ml.

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

Endotoxin Level: <0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant human B-Cell Activating Factor (BAFF) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rh-BAFF should be stable up to 1 week at 4°C or up to 2 months at -20°C.