

Revision 2

Store at -20C
#89628

Human BAFF/TNFSF13B (hBAFF)

20 µg



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MW (kDa):
18.5

UniProt ID:
Q9Y275

Entrez-Gene Id:
10673

Background

BAFF, a member of the TNF superfamily of proteins, is a homotrimeric transmembrane protein, which is cleaved to produce a soluble cytokine (1). BAFF may also further oligomerize into 60-mer structures (1). BAFF is expressed by neutrophils, macrophages, dendritic cells, activated T cells, and epithelial cells (1,2). BAFF plays a key role in B cell development, survival, and activation (1,3,4). BAFF binds to three distinct receptors, BAFF-R, TACI, and BCMA (1). These receptors are differentially expressed during B cell development and among B cell subsets (1,2,4). While BAFF-R and BCMA bind to the homotrimeric form of BAFF, TACI only binds to membrane bound or higher order BAFF structures (1). The BAFF/BAFF-R interaction activates both canonical and non-canonical NF-κB pathways, PI3K/Akt, and mTOR (2,4). Activation of the noncanonical NF-κB pathway via BAFF-R is negatively regulated by TRAF3 (5). Elevated levels of BAFF may exacerbate many autoimmune disorders, making it an attractive therapeutic target (2).

Endotoxin

Less than or equal to 1 EU / 1 µg hBAFF.

Purity

A greater than 90% purity was determined by SDS-PAGE.

Source / Purification

Recombinant human BAFF was expressed in *E. coli* and is supplied in a lyophilized form.

Bioactivity

Storage

Recombinant human BAFF is supplied as lyophilized material that is very stable at -20°C. It is recommended to reconstitute with sterile water at a concentration of 0.1 mg/ml which can be further diluted in aqueous solutions as needed. Addition of a carrier protein (0.1% HSA or BSA) is recommended for long term storage.

Background References

1. Mackay, F. and Schneider, P. (2009) *Nat Rev Immunol* 9, 491-502.
2. Moisini, I. and Davidson, A. (2009) *Clin Exp Immunol* 158, 155-63.
3. Schiemann, B. et al. (2001) *Science* 293, 2111-4.
4. Khan, W.N. (2009) *J Immunol* 183, 3561-7.
5. Gardam, S. et al. (2008) *Immunity* 28, 391-401.

APPLICATIONS KEY

CROSS-REACTIVITY KEY H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr:

hspc: Baby rabbit All: all species expected

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