

Recombinant Human B Lymphocyte Stimulator (rh BAFF / CD257)

Synonymes BLYS, THANK, zTNF4, TALL-1, TNFSF13B, B-cell Activating Factor.

Introduction: BAFF, a member of the TNF family of ligands, is expressed in T cells, macrophages, monocytes and dendritic cells. BAFF is involved in stimulation of B and T cell function, and is an important survival and maturation factor for peripheral B cells. BAFF signals through three different TNF receptors TACI, BCMA and BAFF-R. The human BAFF gene codes for a 285 amino acid type II transmembrane protein containing a 46 amino acid cytoplasmic domain, a 21 amino acid transmembrane domain, and a 218 amino acid extracellular domain. The protein contains the TNF-like portion of the extracellular domain of BAFF. Administration of BAFF to mice disrupts splenic B-cell and T-cell zones and results in elevated levels of serum immunoglobulin.

Description: Recombinant human BAFF produced in E.Coli is a single, non-glycosylated polypeptide chain containing 153 amino acids and having a molecular mass of 17 kDa. The rh BAFF is purified by proprietary chromatographic techniques.

Source: Escherichia Coli

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.22µm filtered solution in PBS, pH 7.4

The samples of 1 µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rh BAFF in sterile H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rh BAFF although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rh BAFF should be stored at 4° C between 2-7 days and for future use below -18° C. Please prevent freeze-thaw cycles.

Purity: Greater than 95.0% as determined by SDS-PAGE.

Amino Acid Sequence: MAVQGPEETV TQDCLQLIAD SETPTIQKGS YTFVPWLLSF KRGSALREEKE NKILVKETGY FFIYGQVLYT DKTYAMGHLI QRKKVHVFGD ELSLVTLFRC IQNMPETLPN NSCYSAGIAK LEEGDELQLA IPRENAQISL DGDVTFFGAL KLL.

Endotoxicity: The endotoxin level is less than 1 EU / µg determined by LAL method.

Biological Activity: Tested by its ability to stimulate secretion of IL-8 of human PBMCs. The ED₅₀ for this effect is less than 10ng/ml corresponding to a specific activity of 10⁵ IU/mg
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|---------------|--------|--------|----------|
| <i>small</i> | 5 µg | Cat.N° | 11343430 |
| <i>medium</i> | 20 µg | Cat.N° | 11343434 |
| <i>large</i> | 100 µg | Cat.N° | 11343436 |

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