

Recombinant Human soluble B Lymphocyte Stimulator (BAFF/BLyS)

Certificate of Analysis and Data Sheet

➤ Source: E.Coli	➤ Catalog No. CTK-307
----------------------------	---------------------------------

➤ **Background:**

The TNF-related ligand, B cell-activating factor belonging to the TNF family (BAFF), is necessary for normal B cell development and survival, and specifically binds the receptors transmembrane activator and calcium-modulator and cyclophilin ligand interactor (TACI), B cell maturation Ag (BCMA), and BAFF-R. Using specific mAbs, BAFF-R was found to be the predominant BAFF receptor expressed on peripheral B cells, in both humans and mice, and antagonist mAbs to BAFF-R blocked BAFF-mediated costimulation of anti- micro responses. The other BAFF receptors showed a much more restricted expression pattern, suggestive of specialized roles

➤ **Description :**

Recombinant Human B Lymphocyte Stimulator produced in E.Coli is a single, non-glycosylated polypeptide chain containing 153 amino acids and having a molecular mass of 17007 Dalton.

Recombinant BAFF is purified by proprietary chromatographic techniques.

➤ **Physical Appearance:**

Sterile Filtered White Lyophilized (freeze-dried) powder.

➤ **Formulation:**

Each mg contains 1.6mg mannitol and 1.2mg HSA.

➤ **Solubility:**

It is recommended to reconstitute the lyophilized BAFF in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

➤ **Stability:**

Lyophilized BAFF although stable at room temperature for 3 weeks, should be stored desiccated below -18 C. Upon reconstitution BAFF should be stored at 4 C between 2-7 days and for future use below -18 C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please avoid freeze-thaw cycles.

➤ **Purity:**

Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Anion-exchange FPLC.
- (c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

➤ **Amino acid sequence:**

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Ala-Val-Gln-Gly.

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This recombinant B Lymphocyte Stimulator is fully biologically active when compared to standard. The activity is determined by the dose-dependant stimulation of IL-8 production by human PBMC. The ED50 for this effect is less than 10ng/ml. Please note: results may vary with PBMC donors.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of BAFF.

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280.
2. Analysis by RP-HPLC, using a standard solution of BAFF as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.