

Human BLyS / TNFSF13B / BAFF Protein (Fc Tag)

Catalog Number: 10056-H01H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

BAFF; BLYS; CD257; DTL; TALL-1; TALL1; THANK; TNFSF20; ZTNF4

Protein Construction:

A DNA sequence encoding the soluble form of human BAFF (Q9Y275-1) (Ala 134-Leu 285) was fused with the Fc region of human IgG1 at the N-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA. Immobilized recombinant human BAFF at 1 µg/mL (100 µl/well) can bind human TNFRSF17. The EC50 of human TNFRSF17 is 0.07 µg/mL.
2. Loaded Recombinant Human BAFF / BLyS / TNFSF13B Protein, hFc Tag (Cat. No. 10056-H01H) on ProA Biosensor, can bind Recombinant Human BCMA Protein, His Tag (Cat. No. 10620-H08H) with an affinity constant of 0.267 µM as determined in BLI assay (Sartorius Octet RED384) (Routinely tested).
3. Loaded Recombinant Human BAFF/BLyS/TNFSF13B Protein, hFc Tag (Cat. No. 10056-H01H) on ProA Biosensor, can bind Recombinant Human BCMA Protein, His Tag, Biotinylated (Cat. No. 10620-H49H-B) with an affinity constant of 18.1 nM as determined in BLI assay (Sartorius Octet RED384) (Routinely tested).
4. Immobilized Recombinant Human TNFRSF17 / BCMA (CD269) Protein (ECD, His Tag) (Cat: 10620-H08H) at 1 µg/mL (100 µL/well) can bind Recombinant Human BLyS / TNFSF13B / BAFF Protein (Fc Tag) (Cat: 10056-H01H), the EC50 is 1.0-4.0 ng/mL (QC tested).
5. Immobilized Recombinant Human BLyS / TNFSF13B / BAFF Protein (Fc Tag) (Cat: 10056-H01H) at 1 µg/mL (100 µL/well) can bind Recombinant Human BAFFR / TNFRSF13C (Fc & AVI Tag), Biotinylated (Cat: 16079-H41H-B), the EC50 is 8-25 ng/mL (Routinely tested).

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Glu 20

Molecular Mass:

The recombinant human BAFF/Fc is a disulfide-linked homodimeric protein. The reduced monomer consists of 389 amino acids and has a predicted molecular mass of 43.7 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhBAFF/Fc monomer is approximately 48-55 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

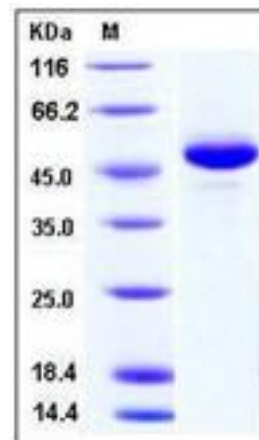
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



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Protein Description

B lymphocyte stimulator (BLyS), also known as TNFSF13B, CD257 and BAFF, is single-pass type II membrane protein, which belongs to the tumor necrosis factor family. BAFF is abundantly expressed in peripheral blood Leukocytes and is specifically expressed in monocytes and macrophages. BAFF is a cytokine and serves as a ligand for receptors TNFRSF13B (TACI), TNFRSF17 (BCMA), and TNFRSF13C (BAFFR). These receptors is a prominent factor in B cell differentiation, homeostasis, and selection. BLyS levels affect survival signals and selective apoptosis of autoantibody-producing B cells. Thus, it acts as a potent B cell activator and has been shown to play an important role in the proliferation and differentiation of B cells. Overexpression of BLyS in mice can lead to clinical and serological features of systemic lupus erythematosus (SLE) and Sjögren's syndrome (SS). BLyS as an attractive therapeutic target in human rheumatic diseases. The ability of BLyS to regulate both the size and repertoire of the peripheral B cell compartment raises the possibility that BLyS and antagonists thereof may form the basis of a therapeutic trichotomy. As an agonist, BLyS protein may enhance humoral immunity in congenital or acquired immunodeficiencies such as those resulting from viral infection or cancer therapy.

References

1.Nardelli B, *et al.* (2002) B lymphocyte stimulator (BLyS): a therapeutic trichotomy for the treatment of B lymphocyte diseases. *Leuk Lymphoma*. 43(7): 1367-73. 2.Stohl W. (2006) Therapeutic targeting of B lymphocyte stimulator (BLyS) in the rheumatic diseases. *Endocr Metab Immune Disord Drug Targets*. 6(4): 51-8. 3.Cancro MP, *et al.* (2009) The role of B lymphocyte stimulator (BLyS) in systemic lupus erythematosus. *J Clin Invest*. 119(5): 1066-73.

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