

Human TNF-beta / TNFSF1 / Lymphotoxin alpha Protein

Catalog Number: 10270-HNAE



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

LTA, DAMA-25N12, 13-004, LT, TNFB, TNFSF1

Protein Construction:

A DNA sequence encoding the mature form of human TNF β (P01374) (Leu 35-Leu 205) was expressed and purified, with an initial Met at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio-Activity

Measured in a cytotoxicity assay using L929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D. The ED50 for this effect is typically 0.1-0.5 ng/ml.

Endotoxin:

Please contact us for more information.

Stability:

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

Predicted N terminal: Met

Molecular Mass:

The recombinant human TNF β comprises 172 amino acids and predicts a molecular mass of 18.8 kDa as estimated in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM Tris, pH 8.0

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

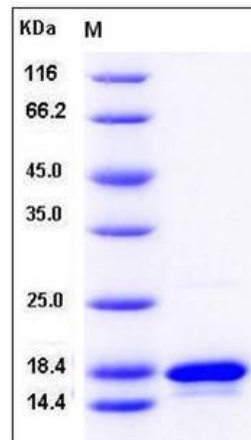
Usage Guide

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.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Lymphotoxin-alpha, also known as LT-alpha, TNF-beta, Tumor necrosis factor ligand superfamily member 1, LTA TNFSF1 and TNFB, is a secreted protein which belongs to the tumor necrosis factor family. TNFB / TNF-beta / LTA is a highly inducible, secreted, and exists as homotrimeric molecule. It is a cytokine that in its homotrimeric form binds to TNFRSF1A / TNFR1, TNFRSF1B / TNFR2 and TNFRSF14 / HVEM. In its heterotrimeric form with LT β , TNFB / TNF-beta / LTA binds to TNFRSF3 / LTBR. Lymphotoxin is produced by lymphocytes and cytotoxic for a wide range of tumor cells. TNFB / TNF-beta / LTA forms heterotrimers with lymphotoxin-beta which anchors lymphotoxin-alpha to the cell surface. It mediates a large variety of inflammatory, immunostimulatory, and antiviral responses. TNFB / TNF-beta / LTA is also involved in the formation of secondary lymphoid organs during development and plays a role in apoptosis. Genetic variations in TNFB / TNF-beta / LTA are a cause of susceptibility to psoriatic arthritis which is an inflammatory, seronegative arthritis associated with psoriasis. It is a heterogeneous disorder ranging from a mild, non-destructive disease to a severe, progressive, erosive arthropathy.

References

1. Browning, J L; et al., 1995, J. Immunol. 154 (1): 33-46.
2. Williams-Abbott, L; et al., 1997, J. Biol. Chem. 272 (31): 19451-6.
3. Browning, J L; et al., 1997, J. Immunol. 159 (7): 3288-98.
4. Balding J., et al., 2003, Arthritis Rheum. 48: 1408-13.
5. Alcaies A., et al., 2007, Nat. Genet. 39: 517-22.

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Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>