

Recombinant Human LT- α (TNF- β)

Catalog # / Size: 562603 / 5 μ g

Source: *E. coli*, approximately 18.6 kD

Endotoxin Level: Endotoxin is less than 0.1 ng per μ g (1 EU/ μ g).

Activity: The ED₅₀ as determined by cytolysis of murine L929 cells in the presence of Actinomycin D is ≤ 0.05 ng/ml, corresponding to a specific activity of $\geq 2 \times 10^7$ units/mg.

Preparation: Centrifuge vial prior to opening. Reconstitute in 100 μ l sterile water for a concentration of 50 μ g/ml and mix well. This solution can be diluted into other aqueous buffers that containing a carrier protein such as 1% BSA or HSA or 10% FBS. Stock solutions should be prepared at no less than 10 μ g/ml in sterile buffer with carrier protein. After reconstitution, the cytokine can be stored at -20°C to -70°C for up to 3 months.

Formulation: Sterile filtered through a 0.2 micron filter. Lyophilized from 0.3x PBS, pH 7.2.

Storage: The lyophilized protein is stable for at least 2 years from date of receipt at -20°C. Reconstituted LT- α is stable for at least 3 months when stored in working aliquots with a carrier protein at -20°C. Avoid repeated freeze/thaw cycles.

Applications:

Applications: ELISA, Bioassay

Recommended Usage: Each lot of this protein is quality control tested by ELISA assay. For use as an ELISA standard, a standard curve comprised of doubling dilutions from 2000 pg/ml to 16 pg/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: ELISA: This LT- α protein is useful as a standard for a human LT- α sandwich ELISA, using unlabeled 359-238-8 antibody (catalog #503002) for capture and biotinylated 359-81-11 antibody (catalog #503104) for detection. Ligand Blocking: This LT- α protein is useful as a ligand-blocking specificity control for immunohistochemical or immunofluorescent staining. Bioassay: This LT- α protein is biologically active, and can be used for in vitro assays.

Description: LT- α , also known as TNF- β , is a potent mediator of inflammatory and immune responses. It belongs to the TNF superfamily of ligands and signals through TNFR1 and TNFR2. LT- α is produced by activated T and B lymphocytes, and has similar activities to TNF- α . Like TNF- α , LT- α (TNF- β) is involved in the regulation of various biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, coagulation, and neurotransmission. LT- α is secreted as a soluble polypeptide, but can form heterotrimers with LT- β , which effectively anchors the LT- α to the cell surface. LT- α is cytotoxic to a wide range of tumor cells. Recombinant human LT- α is secreted 171 amino acid protein (18.6 kD) which forms an active non-disulfide linked homotrimer structure in solution.

Antigen References:

1. Fitzgerald K, *et al.* Eds. 2001. The Cytokine FactsBook. Academic Press San Diego.
2. Aggarwal B, *et al.* Eds. 1992. *Tumor necrosis factors: structure function and mechanism of action*. Marcel Dekker Inc.
3. Bonavida B, *et al.* Eds. 1990. *Tumor necrosis factor: structure mechanisms of action role in disease and therapy*. Karger Basel.
4. Paul N, *et al.* 1987. *Annu. Rev. Immunol.* 6:407.

Related Products:	Product	Clone	Application
	Biotin anti-human LT- α (TNF- β)	359-81-11	ELISA Detection, ELISPOT
	Purified anti-human LT- α (TNF- β)	359-238-8	Detection, ICFC ELISA Capture



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