

Recombinant Human Lymphotoxin Alpha (TNF superfamily, member 1), HQ-tagged

Cat. No. LTA-1253H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinanthuman LTA contains 171 amino acids and a 16 aa HQ tag. Total length is 187aa.
Species	Human
Source	Hordeum Vulgare
Description	LTA is a protein that in humans is encoded by the LTA gene. LTA is a member of the tumor necrosis factor family, is a cytokine produced by lymphocytes. LTA is highly inducible, secreted, and exists as homotrimeric molecule. LTA forms heterotrimers with lymphotoxin-beta which anchors lymphotoxin-alpha to the cell surface. LTA mediates a large variety of inflammatory, immunostimulatory, and antiviral responses. LTA is also involved in the formation of secondary lymphoid organs during development and plays a role in apoptosis.
Form	Lyophilized from a 0.2 µm sterile filtered solution of PBS, pH 7.2.
Endotoxin Level	<0.005 ng per µg of product (0.05 EU/µg) as measured by turbidimetric kinetic assay.
Molecular Weight	Predicted MW = 20.8 kDa. The glycosylated recombinant protein migrates as three bands with an apparent MW = 20, 23 and 27 kDa in SDS-PAGE.
Cross-Reactivity	LTA is not species specific and human LTA is active on mouse cells with a slightly reduced specific activity.

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Biological Activity	The ED50 is determined by the cytotoxicity Assay for the human LTA for dose dependent cytotoxic effects of serial dilutions of LTA on the fibro sarcoma L-929 cells. The ED50 lies in the range of 1.0-1.6 ng/ml.
Reconstitution	Centrifuge vial prior to opening. First add sterile distilled water to the vial to fully solubilize the protein to a concentration not less than 100 µg/ml. After complete solubilization of the protein, it can be further diluted to other aqueous solutions.
Storage	The lyophilized protein, though stable at room temperature for two weeks, is best stored at -20°C. Reconstituted protein should be used immediately or stored in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.
Official Symbol	LTA
GENE INFORMATION	
Gene Name	LTA lymphotoxin alpha (TNF superfamily, member 1) [Homo sapiens]
Synonyms	LTA; lymphotoxin alpha (TNF superfamily, member 1); TNFB; LT; TNFSF1; OTTHUMP00000029184; OTTHUMP00000165897; LT-alpha; TNF-beta; Tumor necrosis factor ligand superfamily member 1; lymphotoxin alpha; Tumor necrosis factor beta
Gene ID	4049
mRNA Refseq	NM_000595
Protein Refseq	NP_000586
MIM	153440

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UniProt ID	P01374
Chromosome Location	6p21.3
Pathway	Apoptosis; Cytokine-cytokinereceptor interaction; HTLV-I infection; Herpes simplex infection; IL2signaling events mediated by STAT5; L4-mediated signaling events; Type Idiabetes mellitus
Function	cytokine activity; receptorbinding; tumor necrosis factor receptor binding
PDB rendering basedon 1tnr.	

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