

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

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

SPECIFICATION

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| 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 a 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. |

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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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

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| 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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