



Screening Libraries

Proteins



Product Data Sheet



TNF-beta/TNFSF1 Protein, Human (HEK293, His)

Cat. No.: HY-P700419

Synonyms: LTA; lymphotoxin alpha (TNF superfamily, member 1); LT; TNFB; TNFSF1; lymphotoxin alpha;

OTTHUMP00000165897; tumor necrosis factor beta; Tumor necrosis factor ligand superfamily

member 1; TNF-beta; LT-alpha

Species: Human **HEK293** Source:

P01374 (L35-L205) Accession:

Gene ID: 4049 Molecular Weight: 20.8 kDa

PROPERTIES

AA Seq	uence
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LPGVGLTPSA AQTARQHPKM HLAHSTLKPA AHLIGDPSKQ NSLLWRANTD RAFLQDGFSL SNNSLLVPTS GIYFVYSOVV FSGKAYSPKA TSSPLYLAHE VQLFSSQYPF HVPLLSSQKM VYPGLQEPWL H S M Y H G A A F Q LTQGDQLSTH TDGIPHLVLS

PSTVFFGAFA

Biological Activity

Measured by its binding ability in a functional ELISA. Immobilized LTA at 5 μg/mL can bind human TNFRSF1B, the EC₅₀ is ≤4

ng/mL.

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O.

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

TNF-beta Protein, in its homotrimeric configuration, exhibits binding capabilities to TNFRSF1A/TNFR1, TNFRSF1B/TNFBR, and TNFRSF14/HVEM, as demonstrated by various studies. Additionally, in its heterotrimeric association with LTB, it forms interactions with TNFRSF3/LTBR, underscoring its diverse receptor engagement. This cytokine, primarily produced by lymphocytes, showcases cytotoxic effects against a broad array of tumor cells both in vitro and in vivo. Structurally, TNFbeta exists as both homotrimers and heterotrimers, the latter comprising either two LTB and one LTA subunits or, to a lesser extent, two LTA and one LTB subunits. Furthermore, TNF-beta engages in interactions with TNFRSF14, emphasizing its pivotal role in mediating intricate immunological responses.

Caution: Product has not been fully validated for medical applications. For research use only.

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