

Screening Libraries

Proteins



Product Data Sheet

Animal-Free TNF beta Protein, Mouse (His)

Cat. No.: HY-P700228AF

Synonyms: TNFSF1B; Lymphotoxin-alpha (LT-a); LTalpha; Ltx; TNF-be; TNFSF1; Tnf; Tnfb; Tnfsf; Tnfsf1b;

Tnlg1e; hlb38; hlb382; lymph

Mouse Species: Source: E. coli

Accession: P09225 (L34-L202)

Gene ID: 16992

Molecular Weight: Approximately 19.36 kDa

PROPERTIES

AA Seq	uence
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LSGVRFSAAR TAHPLPQKHL THGILKPAAH LVGYPSKQNS LLWRASTDRA FLRHGFSLSN NSLLIPTSGL YFVYSQVVFS GESCSPRAIP TPIYLAHEVQ LFSSQYPFHV PLLSAQKSVY PGLQGPWVRS MYQGAVFLLS KGDQLSTHTD GISHLHFSPS

SVFFGAFAL

Biological Activity

The ED₅₀ is <30 ng/mL as measure by its ability to induce cytotoxicity in L929 cells in the presence of vactinomycin D.

Appearance

Lyophilized powder.

Formulation

Lyophilized from a solution containing 1X PBS, pH 8.0.

Endotoxin Level

<0.1 EU per 1 µg of the protein by the LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ 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

The TNF beta Protein, in its homotrimeric form, functions by binding to TNFRSF1A/TNFR1, TNFRSF1B/TNFBR, and TNFRSF14/HVEM, displaying a high degree of similarity in its interactions. In its heterotrimeric form, formed with LTB, it binds to TNFRSF3/LTBR, revealing its versatility in receptor interactions. Produced by lymphocytes, lymphotoxin, the heterotrimeric form of TNF beta, demonstrates cytotoxicity against a broad spectrum of tumor cells both in vitro and in vivo. It exists as homotrimeric and heterotrimeric complexes, with the latter composed of either two LTB and one LTA subunits or, to a lesser extent, two LTA and one LTB subunits. Notably, TNF beta interacts with TNFRSF14, further contributing to its

diverse immunomodulatory functions.

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

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