Overview

Synonyms	TNF-alpha, Tumor necrosis factor ligand superfamily member 2, TNF-a, Cachectin, DIF, TNFA, TNFSF2
Description	**Tumor Necrosis Factor-alpha (TNF-a)** is a homotrimer with a subunit molecular mass of 17.3 kDa. Tumor Necrosis Factor-alpha(TNF-a) plays a major role in growth regulation, differentiation, inflammation, viral replication, tumorigenesis, and autoimmune diseases; and in viral, bacterial, fungal, and parasitic infections. Besides inducing hemorrhagic necrosis of tumors, TNF has been found to be involved in tumorigenesis, tumor metastasis, viral replication, septic shock, fever, inflammation, and autoimmune diseases including Crohn's disease, and rheumatoid arthritis as well as graft-versus-host disease. Recombinant **Human Tumor Necrosis Factor-alpha (TNF-±)** produced in *E.coli* is a single non-glycosylated polypeptide chain containing 157 amino acids. A fully biologically active molecule, rhTNF-± has a molecular mass of 17.3 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.
Species	Human
Source	*E. coli*
Biological Activity	ED_{50} < 30 pg/ml, measured in a cytotoxicity assay using L-929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D, corresponding to a specific activity of > 3.3 x 10^7 units/mg.
Sequence	VRSSSRTPSD KPVAHVVANP QAEGQLQWLN RRANALLANG VELRDNQLVV PSEGLYLIYS QVLFKGQGCP STHVLLTHTI SRIAVSYQTK VNLLSAIKSP CQRETPEGAE AKPWYEPIYL GGVFQLEKGD RLSAEINRPD YLDFAESGQV YFGIIAL

Properties

Measured Molecular Weight	17.3 kDa, observed by reducing SDS-PAGE.
Purity	> 98% as analyzed by SDS-PAGE and HPLC.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH_2O or PBS at 100 µg/ml.
Endotoxin Level	Less than 0.2 EU/µg determined by LAL test.
Storage	Lyophilized recombinant **Human Tumor Necrosis Factor-alpha (TNF-±),** remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, human TNF-± should be stable up to 1 week at 4°C or up to 3 months at -20°C.
Note	For research use only

India Contact:
Life Technologies (India) Pvt. Ltd.
306, Aggarwal City Mall, Opposite M2K Pitampura,
Delhi – 110034 (INDIA).
Mobile: +91-9810521400, Ph: +91-11-42208000
Email: customerservice@lifetechindia.com
Web: www.lifetechindia.com