

Recombinant Human TNF alpha Protein

CAT. NO: R00002

Size: 100µg

Description

Tumor necrosis factor (TNF, tumor necrosis factor alpha, TNF α , cachexin, or cachectin) is a cell signaling protein (cytokine) involved in systemic inflammation and is one of the cytokines that make up the acute phase reaction. It is produced chiefly by activated macrophages, although it can be produced by many other cell types such as CD4+ lymphocytes, NK cells, neutrophils, mast cells, eosinophils, and neurons. The primary role of TNF is in the regulation of immune cells. TNF, being an endogenous pyrogen, is able to induce fever, apoptotic cell death, cachexia, inflammation and to inhibit tumorigenesis and viral replication and respond to sepsis via IL1 & IL6 producing cells. Dysregulation of TNF production has been implicated in a variety of human diseases including Alzheimer's disease, cancer, major depression, psoriasis and inflammatory bowel disease (IBD). Though controversial, studies of depression and IBD are currently being linked to TNF levels. Recombinant TNF is used as an immunostimulant under the INN tasonermin. TNF can be produced ectopically in the setting of malignancy and parallels parathyroid hormone both in causing secondary hypercalcemia and in the cancers with which excessive

production is associated.

Amino Acid Sequence:

VRSSS RTPSD KPAVAH VVANP QAEGQ
LQWLN RRANA LLANG VELRD NQLVV
PSEGL YLIYS QVLFK GQGCP STHVL
LTHTI SRIAV SYQTK VNLLS AIKSP
CQRET PEGAE AKPWY EPIYL GGVFQ
LEKGD RLSAE INRPD YLDFA ESGQV
YFGII AL

Source: E. coli Val77-Leu233

Species: human

Purity: >95%, by SDS-PAGE quantitative densitometry by Coomassie® Blue Staining.

Molecular Weight: 17.3KD

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstitute in ddH₂O at 100 µg/mL.

Endotoxin: Less than 1 EU/µg of TNF alpha as determined by LAL method.

Storage:

Lyophilized recombinant human TNF alpha remains stable up to 6 months at -80°C from date of receipt. Upon reconstitution, rhTNF alpha remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.