TNF-alpha Rat E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Rat
Other names: Cachectin, Tumor necrosis factor alpha, DIF

Cat. No.:

RP1763930005	(5 µg)
RP1763930020	(20 µg)
RP1763931000	(1 mg)

Description

Tumor Necrosis Factor-a Rat Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 157 amino acids and having a molecular mass of 17339.44 Dalton. The TNF-alpha is purified by standard chromatographic techniques.

Introduction to the Molecule

TNF-alpha (17.5 kDa, 157 amino acid) is a non-glycosylated protein that is a potent lymphoid factor, which exerts cytotoxic effects on a wide range of tumor cells and other target cells. It is secreted by macrophages, monocytes, neutrophils, T-cells and NK-cells following their stimulation by bacterial lipopolysaccharides. TNF-alpha has been suggested to play a pro-inflammatory role and has been detected in synovial fluid of patients with rheumatoid arthritis.

Research topic

Cytokines and chemokines and related molecules, Energy metabolism and body weight regulation

Amino Acid Sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Leu-Arg-Ser-Ser.

Source

E. coli

Purity

Greater than 97.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Biological Activity

The ED50 as determined by the cytolysis of murine L929 cells in the presence of Actinomycin D is < 0.05 ng/ml, corresponding to a Specific Activity of 5×107 IU/mg.

Formulation

The protein was lyophilized with no additives.

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage, Stability/Shelf Life

Lyophilized Tumor Necrosis Factor-a although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TNF-a should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). **Please prevent freeze-thaw cycles.**

Physical Appearance

Sterile filtered White lyophilized (freeze-dried) powder.

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