

TNF- β

Tumor Necrosis Factor β

human, recombinant, *E. coli*

Cat. No.	Amount
PR-685	20 μ g

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Form

Lyophilized.

Solubility

It is recommended to reconstitute the lyophilized TNF- β in sterile bidest H₂O not less than 100 μ g/ml. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Activity

ED₅₀: < 0.05 ng/ml, determined by the cytolysis of murine L929 cells in the presence of Actinomycin D.

Endotoxin

Less than 0.1 ng/ μ g (IEU/ μ g) of TNF- β .

Purity

≥ 98% by SDS-PAGE, RP-HPLC and FPLC.

Description

As well as regulating cell proliferation and apoptosis, the TNF-TNF Receptor system also plays an important role in the control of lymphoid organogenesis.

Furthermore, TNF- α and TNF- β induce MHC class I and class II antigens as well as chemokines, and play a critical role in cell-cell interactions and lymphocyte trafficking. TNFs are also known to be involved in the defense against pathogens and in the induction of inflammatory and autoimmune diseases. TNF- β enhances cytotoxic responses against normal and transformed cell types. TNF would therefore appear to be essential in the regulation and maintenance of immune system homeostasis under normal and pathological conditions.

Recombinant human TNF- β (Lymphotoxin) produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 171 amino acids and having a molecular mass of 18.645 kDa.

Recombinant human Tumor Necrosis Factor- β is purified by standard chromatographic techniques.

Selected References:

- Bogunia-Kubik K. (2004) Polymorphisms within the genes encoding TNF-alpha and TNF-beta associate with the incidence of posttransplant complications in recipients of allogeneic hematopoietic stem cell transplants. *Arch. Immunol. Ther. Exp. (Warsz)* **52**:240.
- Parks et al. (2004) Genetic polymorphisms in tumor necrosis factor (TNF)-alpha and TNF-beta in a population-based study of systemic lupus erythematosus: associations and interaction with the interleukin-1alpha-889 C/T polymorphism. *Hum. Immunol.* **65**:622.
- Kahlke et al. (2004) Are postoperative complications genetically determined by TNF-beta NcoI gene polymorphism? *Surgery.* **135**:365.
- Goyal et al. (2004) Association of TNF-beta polymorphism with disease severity among patients infected with hepatitis C virus. *J. Med. Virol.* **72**:60.
- Um et al. (2003) TNF-alpha and TNF-beta gene polymorphisms in cerebral infarction. *J. Mol. Neurosci.* **21**:167.
- Holzer et al. (2003) Serum levels of TNF-beta and sTNF-R in patients with malignant bone tumours. *Anticancer Res.* **23**:3057.
- Reddy et al. (2001) IL-2-induced tumor necrosis factor (TNF)-beta expression: further analysis in the IL-2 knockout model, and comparison with TNF-alpha, lymphotoxin-beta, TNFR1 and TNFR2 modulation. *Int. Immunol.* **13**:135.