





Recombinant Rat TNF alpha Catalog#:P01436 Derived from *E.coli*

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	Catalog#.F01430 Delived from E.cott
DESCRIPTION	Recombinant Rat Tumor Necrosis Factor is produced by our <i>E.coli</i> expression system and the target gene encoding Leu80-Leu235 is expressed. Accession#:P16599 Known as: Tumor Necrosis Factor; Cachectin; TNF-Alpha; Tumor Necrosis Factor Ligand Superfamily Member 2; TNF-a; Tumor Necrosis Factor; Membrane Form; Tumor Necrosis Factor; Soluble Form; Tnf; Tnfa; Tnfsf2
FORMULATION	Lyophilized from a 0.2µm filtered solution of PBS, pH 7.4.
SHIPPING	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
STORAGE	Lyophilized protein should be stored at \leq -20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at \leq -20°C for 3 months.
RECONSTITUTION	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
QUALITY CONTROL	Mol Mass: 17.4kDa AP Mol Mass: 14kDa, reducing conditions. Purity: Greater than 95% as determined by reducing SDS-PAGE. Endotoxin: Less than 0.1ng/μg (1 EU/μg) as determined by LAL test.
BACKGROUND	Tumor necrosis factor alpha (TNF-alpha, TNFSF2) is the prototypic ligand of the TNF superfamily. Rat TNF-alpha consisits of a 35 amino acid (aa) cytoplasmic domain, a 21 aa transmembrane segment, and a 179 aa extracellular domain (ECD). Within the ECD, rat TNF-alpha shares 94% aa sequence identity with mouse. TNF-alpha is produced by a wide variety of immune, epithelial, endothelial, and tumor cells. TNF exists as a homotrimer and interacts with SPPL2B. TNF is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. TNF is a key cytokine in the development of several
	inflammatory disorders. It contributes to the development of type 2 diabetes throught its effects on insulin resistance and fatty acid metabolism.
SDS-PAGE 30 20 14	