

Active Recombinant Rat tumor necrosis factor Protein, His&Flag tagged

Cat. No. Tnf-019R Lot. No. (See product label)

SPECIFICATION

Product Overview

Recombinant rat TNF-alpha protein (P16599) (Leu 80-Leu 235) with both His, Flag tag at the C-terminus was expressed in HEK293.

Species

Rat

Source

HEK293

ProteinLength

80-235aa

Description

Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin-1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation. Induces insulin resistance in adipocytes via inhibition of insulin-induced IRS1 tyrosine phosphorylation and insulin-induced glucose uptake. Induces GKAP42 protein degradation in adipocytes which is partially responsible for TNF-induced insulin resistance. Plays a role in angiogenesis by inducing VEGF production synergistically with IL1B and IL6. Promotes osteoclastogenesis and therefore mediates bone resorption. The TNF intracellular domain (ICD) form induces IL12 production in dendritic cells.

Tag

C-His&Flag

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Bio-activity	Measured in a cytotoxicity assay using L-929 mouse fibroblast cells in the presence of the metabolic inhibitor actinomycin D. The ED50 for this effect is 4-20 pg/mL.
Molecular Mass	19.9 kDa
Endotoxin	Less than 1.0 EU/μg by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
Reconstitution	Reconstitute at 250 μg/mL in sterile water.

GENE INFORMATION

Gene Name	Tnf tumor necrosis factor [<i>Rattus norvegicus</i>]
Official Symbol	Tnf
Synonyms	TNF; tumor necrosis factor; cachectin; tumor necrosis factor alpha; tumor necrosis factor (TNF superfamily, member 2); tumor necrosis factor ligand superfamily member 2; Tnfa; RATTNF; TNF-alpha; MGC124630;
Gene ID	24835
mRNA Refseq	NM_012675

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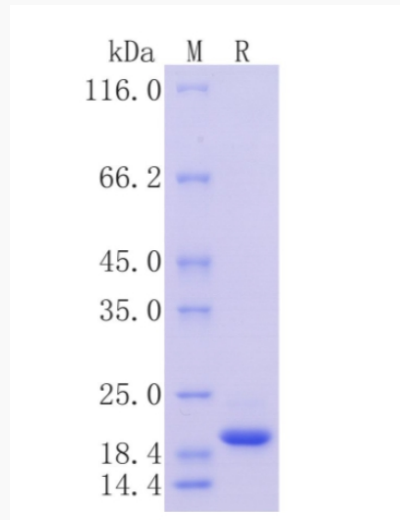
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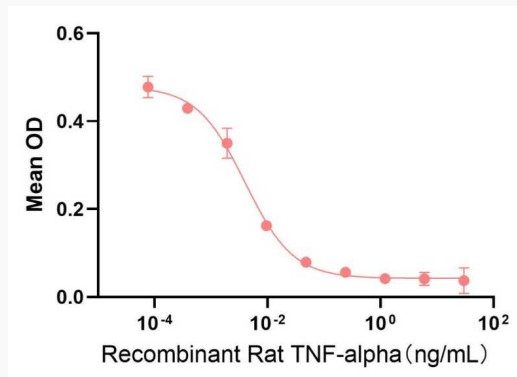
Protein Refseq NP_036807

UniProt ID P16599

Protein on SDS-PAGE under reducing (R) condition.



Activity



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