

## TNF-alpha/TNFSF2 Protein, Mouse (His-SUMO)

Cat. No.:	HY-P700510
Synonyms:	rHuTNF- $\alpha$ , His; Cachectin; TNFSF2
Species:	Mouse
Source:	E. coli
Accession:	P06804 (G57-L235)
Gene ID:	21926
Molecular Weight:	35.7 kDa

### PROPERTIES

AA Sequence	<p>           G P Q R D E K F P N    G L P L I S S M A Q    T L T L R S S S Q N    S S D K P V A H V V            A N H Q V E E Q L E    W L S Q R A N A L L    A N G M D L K D N Q    L V V P A D G L Y L            V Y S Q V L F K G Q    G C P D Y V L L T H    T V S R F A I S Y Q    E K V N L L S A V K            S P C P K D T P E G    A E L K P W Y E P I    Y L G G V F Q L E K    G D Q L S A E V N L            P K Y L D F A E S G    Q V Y F G V I A L         </p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 $\mu$ m filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/ $\mu$ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	<p>TNF-alpha/TNFSF2 Protein is a cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. Secreted mainly by macrophages, it can induce cell death in certain tumor cell lines. Additionally, it acts as a potent pyrogen, causing fever through direct action or by stimulating interleukin-1 secretion and is implicated in the induction of cachexia. Under specific conditions, it can stimulate cell proliferation and promote cell differentiation. In adipocytes, it induces insulin resistance by inhibiting insulin-induced IRS1 tyrosine phosphorylation and glucose uptake, while also leading to GKAP42 protein degradation, contributing to TNF-induced insulin resistance. TNF-alpha/TNFSF2 Protein plays a role in angiogenesis by synergistically inducing VEGF production with IL1B and IL6. Furthermore, it facilitates osteoclastogenesis, thereby mediating bone resorption. Finally, the TNF intracellular domain (ICD) form of TNF-alpha/TNFSF2 Protein stimulates IL12</p>
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production in dendritic cells.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA