

## TNF RI/TNFRSF1A Protein, Mouse

<b>Cat. No.:</b>	HY-P72443
<b>Synonyms:</b>	Tumor necrosis factor receptor superfamily member 1A; TNF-R1; CD120a; Tnfrsf1a
<b>Species:</b>	Mouse
<b>Source:</b>	E. coli
<b>Accession:</b>	P25118 (I22-A212)
<b>Gene ID:</b>	21937
<b>Molecular Weight:</b>	20-25 kDa

### PROPERTIES

<b>AA Sequence</b>	<p>I H P S G V T G L V    P S L G D R E K R D    S L C P Q G K Y V H    S K N N S I C C T K</p> <p>C H K G T Y L V S D    C P S P G R D T V C    R E C E K G T F T A    S Q N Y L R Q C L S</p> <p>C K T C R K E M S Q    V E I S P C Q A D K    D T V C G C K E N Q    F Q R Y L S E T H F</p> <p>Q C V D C S P C F N    G T V T I P C K E T    Q N T V C N C H A G    F F L R E S E C V P</p> <p>C S H C K K N E E C    M K L C L P P P L A    N V T N P Q D S G T    A</p>
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>TNFRSF1A (TNF RI) protein is a single-pass type I membrane protein belonging to the tumor necrosis factor (TNF) family. TNFRSF1A is the major signaling receptor for TNF-α. TNFRSF1A protein is a multifunctional cytokine, which is synthesized by almost all cells<sup>[1][2]</sup>.</p> <p>The sequence of amino acids in TNFRSF1A from different species is very different (less than 85% similarity among human, rat and mouse).</p> <p>TNFRSF1A contains a protein-protein interaction domain, called death domain (DD), can recruit other DD-containing proteins and couples the death receptors to caspase activation and apoptosis. Both soluble and membrane-bound forms of</p>
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the cytokine can activate TNFRSF1A. TNFRSF1A induces cellular inflammatory damage and apoptosis by participating in mTOR, JNK, IKK, caspase 3, MAPK, and NF-κB pathways<sup>[1][3][4]</sup>.

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## REFERENCES

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- [1]. Wajant H, et, al. Tumor necrosis factor signaling. Cell Death Differ. 2003 Jan;10(1):45-65.
- [2]. Fu Q, et, al. miR-29a up-regulation in AR42J cells contributes to apoptosis via targeting TNFRSF1A gene. World J Gastroenterol. 2016 May 28;22(20):4881-90.
- [3]. Zhou S, et, al. Bioinformatics Analysis Identifies TNFRSF1A as a Biomarker of Liver Injury in Sepsis TNFRSF1A is a Biomarker for Septic Liver Injury. Genet Res (Camb). 2022 Oct 15;2022:1493744.
- [4]. Egusquiaguirre SP, et, al. The STAT3 Target Gene TNFRSF1A Modulates the NF-κB Pathway in Breast Cancer Cells. Neoplasia. 2018 May;20(5):489-498.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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