

## TNF RII/TNFRSF1B Protein, Rhesus Macaque (HEK293, His)

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| Cat. No.:         | HY-P72444  |
| Synonyms:         | TNF-R2; CD120b; Tumor necrosis factor receptor superfamily member 1b; p75; Tnfr2 |
| Species:          | Rhesus Macaque   |
| Source:           | HEK293   |
| Accession:        | F7EAF8 (L23-D257)  |
| Gene ID:          | 715454   |
| Molecular Weight: | 35-45 kDa  |

### PROPERTIES

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| AA Sequence         | <pre> L P A Q V A F T P Y   A P E P G G T C R L   R E Y Y D Q T A Q M   C C S K C P P G Q H A K V F C T K T S D   T V C D S C E D S T   Y T Q L W N W V P E   C L S C G S R C S S D Q V E T Q A C T R   E Q N R I C T C R P   G W Y C A L S K Q E   G C R L C A Q L R K C R P G F G V A R P   G T E T S D V V C K   P C A P G T F S N T   T S S T D I C R P H Q I C H V V A I P G   N A S M D A V C T S   T S P T R S M A P G   A V H L P Q P V S T R S Q H T Q P T P A   P S T A P G T S F L   L P V G P S P P A E   G S T G D           </pre> |
| Appearance          | Lyophilized powder.  |
| Formulation         | Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.  |
| Endotoxin Level     | <1 EU/µg, determined by LAL method.  |
| Reconstitution      | 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).  |
| 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

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| Background | <p>TNFRII (TNFRSF1B) protein is a single-pass type I membrane protein belonging to the tumor necrosis factor (TNF) family. TNFRII is the major signaling receptor for TNF-α. TNFRII protein is highly regulated and typically found in immune system cells<sup>[1]</sup>.</p> <p>The amino acid sequence of mouse TNFRII protein has low homology between human and rhesus macaque TNFRII protein (less than 85%). The amino acid sequence of TNFRII protein in human and rhesus macaque is very similar (percent identity matrix of 95.88%).</p> |
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TNFRII induces apoptosis. TNFRII does not directly engage the apoptotic program, but relies on the induction of endogenous, membrane-bound TNF, which subsequently activates TNFRI. TNFRII stimulates the action of the endogenously produced membrane-bound TNF on TNFRI is drastically enhanced. TNFRII competes with TNFRI for the recruitment of newly synthesized TRAF2-bound anti-apoptotic factors, thereby promoting the formation of a caspase-8-activating TNFRI complex. TNFRII competes with TNFRI for binding of TRAF2 and the TRAF2-associated anti-apoptotic cIAP1 and cIAP2 proteins. cIAP1-initiated degradation of TRAF2, which in turn enhances receptor competition for the remaining TRAF2, cIAP1 and cIAP2 molecules. cIAP1 would have an anti-apoptotic function upon recruitment into the TNFRI signalling complex, but would switch to a net proapoptotic function upon recruitment into the TNFRII signalling complex<sup>[1][2][3]</sup>.

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## REFERENCES

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- [1]. Wajant H, et, al. Tumor necrosis factorsignaling. Cell Death Differ. 2003 Jan;10(1):45-65.
- [2]. Fotin-Mleczek M, et, al. Apoptoticcrossstalk of TNF receptors: TNF-R2-induces depletion of TRAF2 and IAP proteinsand accelerates TNF-R1-dependent activation of caspase-8. J Cell Sci. 2002 Jul1;115(Pt 13):2757-70.
- [3]. Masli S, et, al. Anti-inflammatory effectsof tumour necrosis factor (TNF)-alpha are mediated via TNF-R2 (p75) intolerogenic transforming growth factor-beta-treated antigen-presenting cells.Immunology. 2009 May;127(1):62-72.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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