

# Mouse TNFR2 / CD120b / TNFRSF1B Protein (His Tag)

Catalog Number: 50128-M08H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CD120b; p75; TNF-alphaR2; TNF-R-II; TNF-R2; TNF-R75; TNFalpha-R2; TNFBR; Tnfr-1; Tnfr2; TNFR80; TNFR1I

### Protein Construction:

A DNA sequence encoding the extracellular domain of mouse TNFRSF1B (NP\_035740.2) (Met 1-Gly 258) was fused with a polyhistidine tag at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

## QC Testing

Purity: > 97 % as determined by SDS-PAGE. ≥90 % as determined by SEC-HPLC.

### Bio Activity:

Measured by its ability to inhibit TNF $\alpha$ -mediated cytotoxicity in L-929 mouse fibroblast cells in the presence of the metabolic inhibitor actinomycin D. The ED<sub>50</sub> for this effect is typically 1-3  $\mu$ g/mL in the presence of 0.1 ng/mL of recombinant mouse TNF $\alpha$ .

### Endotoxin:

< 1.0 EU per  $\mu$ g of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Val 23

### Molecular Mass:

The recombinant mouse TNFRSF1B consists of 247 amino acids and has a predicted molecular mass of 26.8 kDa. In SDS-PAGE under reducing conditions, rm TNFRSF1B migrates as an approximately 45 kDa band due to glycosylation.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

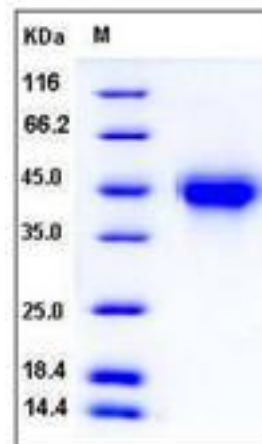
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Tumor necrosis factor receptor superfamily, member 1B (TNFRSF1B), also known as Tumor necrosis factor receptor 2 (TNFR2) or CD120b antigen, is a member of the tumor necrosis factor receptor superfamily. TNFR2/CD120b/TNFRSF1B is a member of the TNF-receptor superfamily. This protein and TNF-receptor 1 form a heterocomplex that mediates the recruitment of two anti-apoptotic proteins, c-IAP1 and c-IAP2, which possess E3 ubiquitin ligase activity. Knockout studies in mice also suggest a role of this protein in protecting neurons from apoptosis by stimulating antioxidative pathways. TNFR2/CD120b/TNFRSF1B is not a major contributing factor to the genetic risk of type 2 diabetes, its associated peripheral neuropathy and hypertension and related metabolic traits in North Indians. Tumor necrosis factor receptor superfamily, member 1B (TNFRSF1B) has been reported to be associated with SLE risk in Japanese populations. TNFR2/CD120b/TNFRSF1B serves as a receptor with high affinity for TNFSF2 and approximately 5-fold lower affinity for homotrimeric TNFSF1. This receptor mediates most of the metabolic effects of TNF-alpha. Isoform 2 blocks TNF-alpha-induced apoptosis, which suggests that it regulates TNF-alpha function by antagonizing its biological activity.

## References

1. Komata T, *et al.* (1999) Association of tumor necrosis factor receptor 2 (TNFR2) polymorphism with susceptibility to systemic lupus erythematosus. *Tissue Antigens*. 53(6): 527-33.
2. Tsuchiya N, *et al.* (2001) Analysis of the association of HLA-DRB1, TNFalpha promoter and TNFR2 (TNFRSF1B) polymorphisms with SLE using transmission disequilibrium test. *Genes Immun*. 2(6): 317-22.
3. Guo G, *et al.* (1999) Role of TNFR1 and TNFR2 receptors in tubulointerstitial fibrosis of obstructive nephropathy. *Am J Physiol*. 277(5): 766-72.

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