

Human TNFR2 / CD120b / TNFRSF1B Protein (ECD, His & Fc Tag)

Catalog Number: 10417-H03H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CD120b; p75; p75TNFR; TBPII; TNF-R-II; TNF-R75; TNFBR; TNFR1B; TNFR2; TNFR80

Protein Construction:

A DNA sequence encoding the extracellular domain (Met1-Asp257) of human TNFR2 (NP_001057.1) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to inhibit TNF- α mediated cytotoxicity in L-929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D. The ED₅₀ for this effect is typically 1-5 ng/ml in the presence of 0.25 ng/mL recombinant human TNF- α .

Endotoxin:

< 1.0 EU per μ g of the protein as determined by the LAL method

Predicted N terminal: Leu 23

Molecular Mass:

The recombinant human TNFR2/Fc is a disulfide-linked homodimer. The reduced monomer consists of 482 amino acids and has a predicted molecular mass of 53 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh TNFR2/Fc monomer is approximately 65.6 kDa 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

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

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 CD12b antigen, is a member of the tumor necrosis factor receptor superfamily. TNFR2/CD12b/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/CD12b/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/CD12b/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- α . Isoform 2 blocks TNF- α -induced apoptosis, which suggests that it regulates TNF- α 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, TNF α 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.