Human TNFR2 / CD120b / TNFRSF1B Protein (His Tag)

Catalog Number: 10417-H08H

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 (Met 1-Asp 257) of human TNFRII (NP_001057.1) was expressed, fused with a C-terminal polyhistidine tag.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio Activity:

1. 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 ED_{50} for this effect is typically 0.2-0.8 μg/ml in the presence of 0.25 ng/mL recombinant human TNF-α.
2. Measured by its binding ability in a functional ELISA. Immobilized TNFRII-His (Cat:10417-H08H) at 10 μg/mL (100 μL/well) can bind TNFα/Biotin (Cat:10602-HNAE), the EC_{50} of TNFα/Biotin (Cat:10602-HNAE) is 20-60 ng/mL.

Endotoxin:

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

Stability:

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

Predicted N terminal: Leu 23

Molecular Mass:

The recombinant human TNFRII comprises 246 amino acids and has a calculated molecular mass of 26.7 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh TNFRII is approximately 42-45 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

Storage:

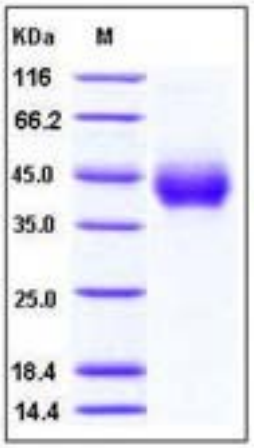
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.