Human TNFRSF12A / FN14 / TWEAKR Protein (Fc Tag)

Catalog Number: **10431-H01H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CD266; FN14; TWEAKR

Protein Construction:

A DNA sequence encoding the human TNFRSF12A isoform 1 (Q9NP84-1) extracellular domain (Glu 28-Trp 79) was fused with the Fc region of human IgG1 at the N-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Immobilized Cynomolgus mFc-TNFSF12 (Cat:90094-C04H) at 10 μg/ml (100 μl/well) can bind human Fc-TNFRSF12A, The ED_{50} of human Fc-TNFRSF12A is 0.07-0.15 μg/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: Glu

Molecular Mass:

The recombinant human TNFRSF12A/Fc chimera is a disulfide-linked homodimeric protein. The reduced monomer consists of 313 amino acids and has a calculated molecular mass of 34 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhTNFRSF12A/Fc monomer is approximately 37 kDa.

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:

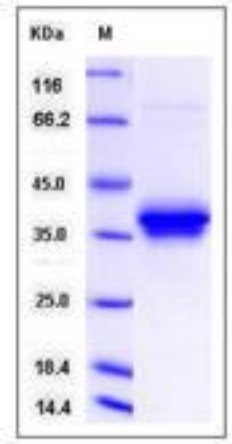
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Fn14 (tumor necrosis factor receptor superfamily, member 12A), also known as TNFRSF12A, is the receptor for TNFSF12/TWEAK. Fn14 shares 82% amino acid identity with the mouse sequence. It contains a signal peptide, an extracellular domain, a membrane-anchoring domain, and a cytoplasmic domain. In response to FGF1, calf serum, or phorbol ester stimulation of human quiescent fibroblasts in vitro, the level of Fn14 is increased. A 1.2-kb FN14 transcript was expressed at high levels in heart, placenta, and kidney, at intermediate levels in lung, skeletal muscle, and pancreas, and at low levels in brain and liver. In addition, elevated FN14 expression was found in human liver cancer cell lines and hepatocellular carcinoma specimens. Expression of mouse Fn14 was upregulated in hepatocellular carcinoma nodules that develop in 2 different transgenic mouse models of hepatocarcinogenesis. TNFRSF12A is the weak inducer of apoptosis in some cell types. It promotes angiogenesis and the proliferation of endothelial cells. TNFRSF12A may modulate cellular adhesion to matrix proteins.

References

1.Burkly LC, *et al.* (2011) The TWEAK/Fn14 pathway in tissue remodeling: for better or for worse. Adv Exp Med Biol. 691:305-22. 2.Huang M, *et al.* (2011) Overexpression of Fn14 promotes androgen-independent prostate cancer progression through MMP-9 and correlates with poor treatment outcome. Carcinogenesis. 32(11):1589-96. 3.Dharmapatni AA, *et al.* (2011) TWEAK and Fn14 expression in the pathogenesis of joint inflammation and bone erosion in rheumatoid arthritis. Arthritis Res Ther. 13(2):R51.