

# Rat TNFSF12 Protein (Fc Tag)

Catalog Number: 80154-R01H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

TNFSF12

### Protein Construction:

A DNA sequence encoding the rat TNFSF12 (Arg105-His249) was expressed with Fc region of human IgG1 at the N-terminus.

Source: Rat

Expression Host: HEK293 Cells

## QC Testing

Purity: > 85 % as determined by SDS-PAGE

### Bio Activity:

1. Measured in a cell proliferation assay using HUVEC human umbilical vein endothelial cells. The  $ED_{50}$  for this effect is typically 5-20 ng/mL. 2. Immobilized Fc-rat TNFSF12 at 10  $\mu$ g/ml (100  $\mu$ l/well) can bind biotinylated human Fc-TNFRSF12A (Cat:10431-H01H). The  $EC_{50}$  of biotinylated human Fc-TNFRSF12A (Cat:10431-H01H) is 0.12-0.28  $\mu$ g/ml.

### 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: Glu

### Molecular Mass:

The recombinant rat TNFSF12 comprises 405 amino acids and predicts a molecular mass of 44.4 kDa. The apparent molecular mass of the recombinant protein is approximately 49 kDa in SDS-PAGE under reducing conditions 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:

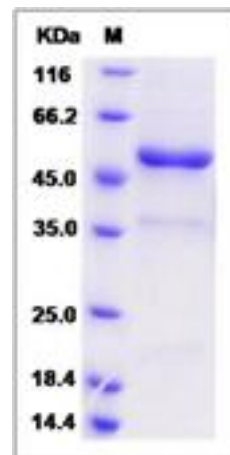
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

TNFSF12 is a cytokine that belongs to the tumor necrosis factor (TNF) ligand family. It is a ligand for the FN14/TWEAKR receptor. TNFSF12 has overlapping signaling functions with TNF, but displays a much wider tissue distribution. It can induce apoptosis via multiple pathways of cell death in a cell type-specific manner. It is also found that TNFSF12 promotes proliferation and migration of endothelial cells, and thus acts as a regulator of angiogenesis. TNFSF12 also is a weak inducer of apoptosis in some cell types and mediates NF-kappa-B activation.

## References

1.Wiley SR, *et al.* (2004) TWEAK, a member of the TNF superfamily, is a multifunctional cytokine that binds the TweakR/Fn14 receptor. Cytokine Growth Factor Rev. 14(3-4):241-9. 2.Campbell S, *et al.* (2006) The role of TWEAK/Fn14 in the pathogenesis of inflammation and systemic autoimmunity. Front Biosci. 9:2273-84. 3.Lynch CN, *et al.* (1999) TWEAK induces angiogenesis and proliferation of endothelial cells. J Biol Chem. 274(13):8455-9.

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