

# Recombinant Human TNFSF12/TWEAK Protein

Catalog No.: RP01446 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	8742	O43508-1

### Tags

No tag

### Synonyms

TNFSF12;APO3L;DR3LG;TNLG4A;TWEAK

## Product Information

Source	Purification
<i>E. coli</i>	> 95% by SDS-PAGE.

Calculated MW	Observed MW
16.94 kDa	15-20 kDa

### Endotoxin

<0.1EU/μg

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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## Background

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.

## Basic Information

### Description

Recombinant Human TNFSF12/TWEAK Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Lys97-His249[N-Met]) of human TWEAK/TNFSF12 (Accession #NP\_003800.1) fused with no additional amino acid.

### Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized Human TNFSF12 at 2 μg/mL (100 μL/well) can bind Human TNFRSF12A with a linear range of 0.1-2.3 ng/mL. 2. Measured in a cell proliferation assay using human umbilical vein endothelial cells (HUVEC). The ED<sub>50</sub> for this effect is typically 0.81-3.24 ng/mL.

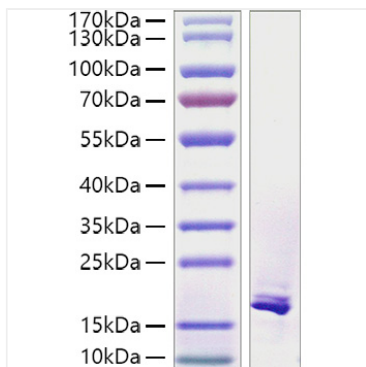
### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

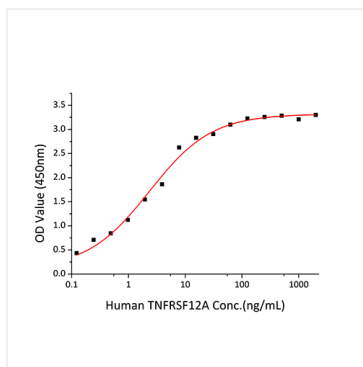
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

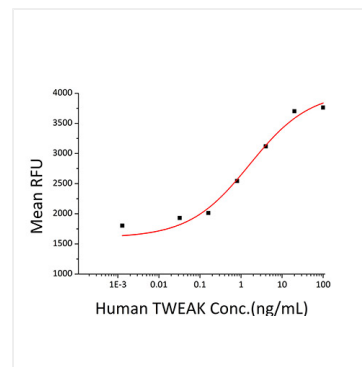
## Validation Data



Recombinant Human TNFSF12/TWEAK  
Protein was determined by SDS-PAGE with  
Coomassie Blue, showing a band at 18kDa.



Immobilized Human TNFSF12 at 2 µg/mL  
(100 µL/well) can bind Human TNFRSF12A  
with a linear range of 0.1-2.3 ng/mL.



Recombinant Human TNFSF12 stimulates cell  
proliferation of the human umbilical vein  
endothelial cells (HUVEC). The ED<sub>50</sub> for this  
effect is typically 0.81-3.24 ng/mL.