

# Recombinant Human TNFSF12/TWEAK Protein

Catalog No.: RP01446 Recombinant

## **Sequence Information**

**Species** Gene ID **Swiss Prot** Human 8742 043508-1

Tags

No tag

**Synonyms** 

TNFSF12;APO3L;DR3LG;TNLG4A;TWEAK

## **Product Information**

Source **Purification** E. coli ≥ 95 % as

determined by SDS-

PAGE.

Calculated MW Observed MW

16.94 kDa 15-20 kDa

#### **Endotoxin**

< 0.1 EU/µg of the protein by LAL method.

#### **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 stablizer (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 \( \text{N-Met} \)) of human TWEAK/TNFSF12 (Accession #NP 003800.1) fused with no additional amino

#### **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.

#### Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

### Storage

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

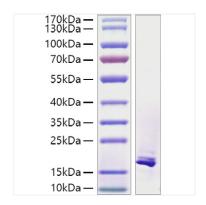
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

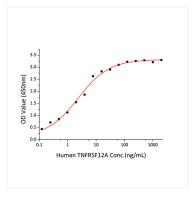
#### Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

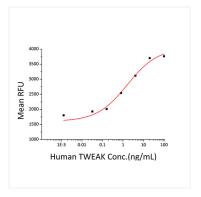
## **Validation Data**



Recombinant Human TNFSF12/TWEAK Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Immobilized Human TNFSF12 at 2  $\mu$ g/mL (100  $\mu$ L/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  $\rm ED_{50}$  for this effect is typically 0.81-3.24 ng/mL.