

Human TNFSF10 / TRAIL / APO-2L / CD253 Protein

Catalog Number: 10409-HNAE



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

APO2L, Apo-2L, CD253, TL2, TRAIL

Protein Construction:

A DNA sequence encoding the human TNFSF10 (NP_003801.1) (Val 114-Gly 281) with an initial Met was expressed and purified.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio-Activity

1. Measured in a cytotoxicity assay using L929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D . The ED50 for this effect is typically 2-10 ng/ml .
2. Measured in a cytotoxicity assay using NCI-H460 cells in the presence of the metabolic inhibitor actinomycin D . The ED50 for this effect is typically 0.2-0.8 ng/ml .

Endotoxin:

Please contact us for more information.

Stability:

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

Predicted N terminal: Met

Molecular Mass:

The recombinant human TNFSF10 consisting of 169 amino acids and has a calculated molecular mass of 19.6 kDa. It migrates as an approximately 19 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 40mM Tris, 0.3 M NaCl, pH 7.0

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

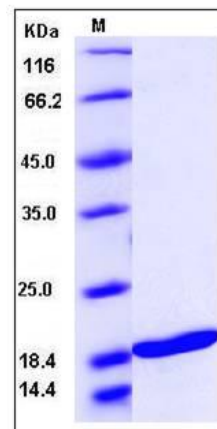
Usage Guide

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.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

TNF-related apoptosis-inducing ligand (TRAIL), also known as TNFSF10 or CD253, is a member of the tumor necrosis factor family. TNFSF10/TRAIL functions as a ligand which induces the process of cell death called apoptosis. TNFSF10/TRAIL shows homology to other members of the tumor necrosis factor superfamily. It is composed of 281 amino acids (aa) and has characteristics of a type II transmembrane protein. The N-terminal cytoplasmic domain is not conserved across family members, however, the C-terminal extracellular domain is conserved and can be proteolytically cleaved from the cell surface. The identity between the canine and human TRAIL proteins is 81.3%. TNFSF10/TRAIL binds to the death receptors DR4 (TRAIL-R1) and DR5 (TRAIL-R2). TNFSF10/TRAIL also binds the receptors DcR1 and DcR2, which do not contain a cytoplasmic domain (DcR1) or contain a truncated death domain (DcR2). DcR1 functions as a TRAIL-neutralizing decoy-receptor. The cytoplasmic domain of DcR2 is functional and activates NFκB. Preclinical studies showed that human TRAIL induced apoptosis of various tumor cell lines, whereas nontransformed normal cell lines were not affected.

References

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3. Hymowitz, S.G. et al., 1999, Mol. Cell. 4 (4): 563-571.
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6. Rong, S. et al., 2008, Molecular cancer therapeutics. 7 (7): 2181-2191.

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