

Cynomolgus TNFSF10 / TRAIL / APO-2L Protein

Catalog Number: 90098-CNAE



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

TNFSF10

Protein Construction:

A DNA sequence encoding the cyno TNFSF10 (F6S9W7) (Val114-Gly281) was expressed and purified with an initial Met.

Source: Cynomolgus

Expression Host: E. coli

QC Testing

Purity: > 98 % as determined by SDS-PAGE

Bio-Activity

1. Measured in a cytotoxicity assay using L-929 mouse fibroblast cells in the presence of the metabolic inhibitor actinomycin D. The ED50 for this effect is typically 0.5-2 ng/mL.
2. Measured by its binding ability in a functional ELISA. Immobilized Cynomolgus TNFSF10 at 10 µg/ml (100 µl/well) can bind Cynomolgus TNFRSF10D-Fc (Cat:90100-C02H). The EC50 of Cynomolgus TNFRSF10D-Fc (Cat:90100-C02H) is 7.8-18.1 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 cyno TNFSF10 consists of 169 amino acids and has a calculated molecular mass of 19.6 kDa. It migrates as an 16 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS

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.

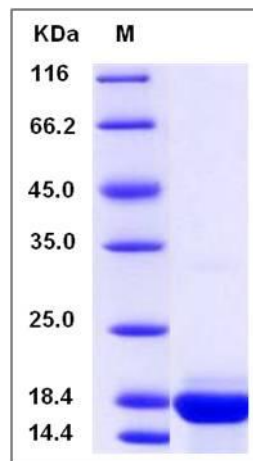
Usage Guide

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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2. Pitti RM. et al., 1996, J Biol Chem. 271 (22): 12687-90.
3. Hymowitz SG. et al., 1999, Mol Cell. 4 (4): 563-71.
4. Kaptein A. et al., 2000, FEBS Lett. 485 (2-3): 135-41.
5. Song JJ. et al., 2008, Cell Signal. 20 (5): 892-906.
6. Rong S. et al., 2008, Molecular cancer therapeutics. 7 (7): 2181-91.

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