

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

Catalog Number: 10409-HNAE



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

Apo-2L; APO2L; 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: ≥ 95 % as determined by SDS-PAGE

Bio Activity:

1. Loaded Recombinant Human DR5/TRAIL R2 Protein, hFc Tag (Cat. No. 10465-H02H) on AHC Biosensor, can bind Recombinant Human TRAIL/TNFSF10 Protein (Cat. No. 10409-HNAE) with an affinity constant of 0.253 nM as determined in BLI assay (Sartorius Octet RED384) (Routinely tested).

2. Loaded Recombinant Human Osteoprotegerin/TNFRSF11B Protein (hFc Tag) (Cat. No. 10271-H02B) on proA Biosensor, can bind Recombinant Human TRAIL/TNFSF10 Protein (Cat. No. 10409-HNAE) with an affinity constant of 2.390 nM as determined in BLI assay (Sartorius Octet RED384) (Routinely tested).

Endotoxin:

Please contact us for more information.

Predicted N terminal: Met

Molecular Mass:

The recombinant human TNFSF10 consists 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 50mM Tris, 300mM NaCl, pH 7.2.

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

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

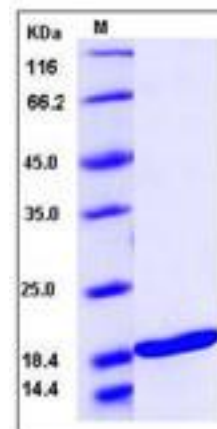
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Tumor necrosis factor ligand superfamily member 1 (TNFSF1), also known as TNF-related apoptosis-inducing ligand (TRAIL), Apo-2 ligand, and CD253, is a cytokine that belongs to the tumor necrosis factor (TNF) ligand family. TNFSF1 / Apo-2L / CD253 functions as a ligand that induces the process of cell death called apoptosis. TNFSF1 / TRAIL shows homology to other members of the tumor necrosis factor superfamily. As one member of the cluster of differentiation system, TNFSF1 / CD253 is commonly used as cell markers in immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules which associating with the immune function of the cell. There are more than 32 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion TNFSF1 / Apo-2L / CD253 / TRAIL binds to several members of TNF receptor superfamily including TNFRSF1A / TRAILR1, TNFRSF1B / TRAILR2, TNFRSF1C / TRAILR3, TNFRSF1D / TRAILR4, and possibly also to TNFRSF11B/OPG. The activity of TNFSF1 / TRAIL may be modulated by binding to the decoy receptors TNFRSF1C / TRAILR3, TNFRSF1D/TRAILR4, and TNFRSF11B/OPG that cannot induce apoptosis. The binding of this protein to its receptors has been shown to trigger the activation of MAPK8 / JNK, caspase 8, and caspase 3. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

References

1. Song C, et al. (2005) TRAIL (CD253), a new member of the TNF superfamily. J Biol Regul Homeost Agents. 19(1-2): 73-7.
2. Kuribayashi K, et al. (2008) TNFSF10 (TRAIL), a p53 target gene that mediates p53-dependent cell death. Cancer Biol Ther. 7(12): 2034-8.
3. Wiley SR, et al. (1995) Identification and characterization of a new member of the TNF family that induces apoptosis. Immunity. 3(6): 673-82.

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