

Human TRAIL R1 / CD261 / TNFRSF10A Protein (His & Fc Tag)

Catalog Number: 10408-H03H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

APO2; CD261; DR4; MGC9365; TNFRSF10A; TRAILR-1; TRAILR1

Protein Construction:

A DNA sequence encoding the human TNFRSF10A (NP_003835.2) extracellular domain (Met 1-Asn 239) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 98 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA. Immobilized human TNFSF10 at 10 µg/ml (100 µl/well) can bind human TNFRSF10A Fc Chimera with a linear range of 0.625-20 ng/ml.
2. Measured by its ability to inhibit TRAIL-mediated cytotoxicity using L-929 mouse fibroblast cells treated with TRAIL. The ED₅₀ for this effect is typically 5-20 ng/ml in the presence of 20 ng/ml Recombinant Human TRAIL/TNFSF10.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

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

Predicted N terminal: Ala 109

Molecular Mass:

The recombinant human TNFRSF10A/Fc is a disulfide-linked homodimer. The reduced monomer consists of 378 amino acids and has a predicted molecular mass of 42 kDa. As a result of glycosylation, the apparent molecular mass of rh TNFRSF10A/Fc monomer migrates with an apparent molecular mass of 47 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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

Storage:

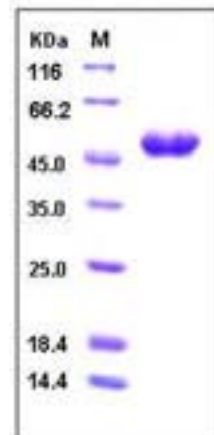
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Tumor necrosis factor receptor superfamily, member 10a (TRAIL R1), also known as TRAIL receptor 1 (TRAIL R1) or CD261 antigen, is a member of the TNF-receptor superfamily. This receptor is activated by tumor necrosis factor-related apoptosis inducing ligand (TNFSF10/TRAIL), and thus transduces cell death signal and induces cell apoptosis. Studies with FADD-deficient mice suggested that FADD, a death domain containing adaptor protein, is required for the apoptosis mediated by this protein. TRAIL R1/CD261/TNFRSF10A serves as a receptor for the cytotoxic ligand TNFSF10/TRAIL. The adapter molecule FADD recruits caspase-8 to the activated receptor. The resulting death-inducing signaling complex (DISC) performs caspase-8 proteolytic activation which initiates the subsequent cascade of caspases (aspartate-specific cysteine proteases) mediating apoptosis. TRAIL R1 can promote the activation of NF-kappa-B. TRAIL R1/CD261/TNFRSF10A induces apoptosis of many transformed cell lines but not of normal tissues, even though its death domain-containing receptor, DR4, is expressed on both cell types.

References

1. Kimberley FC, et al. (2005) Following a TRAIL: update on a ligand and its five receptors. Cell Res. 14 (5): 359-72.
2. Schneider P, et al. (1997) Characterization of two receptors for TRAIL. FEBS Lett. 416 (3): 329-34.

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Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>