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

Catalog Number: **10408-H08H**

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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 expressed, fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 92 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to inhibit TRAIL-mediated cytotoxicity using L-929 mouse fibroblast cells treated with TRAIL.
The ED_{50} for this effect is typically 50-200 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 ℃

Predicted N terminal: Ala 109

Molecular Mass:

The secreted recombinant human TNFRSF10A consists of 142 amino acids and has a predicted molecular mass of 15.7 kDa. As a result of glycosylation, rh TNFRSF10A migrates as an approximately 24 kDa band 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:

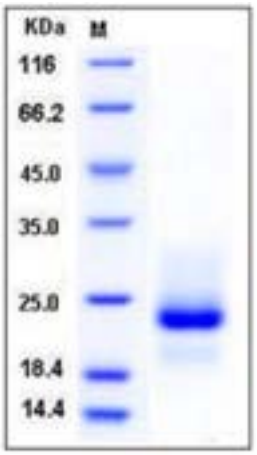
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.