



# Recombinant Protein Technical Manual

## Recombinant Human TRAILR1/TNFRSF10A Protein (His & Fc Tag)(Active) RPES3498

### Product Data:

**Product SKU:** RPES3498

**Size:** 100µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** NP\_003835.2

### Protein Information:

**Molecular Mass:** 42 kDa

**AP Molecular Mass:** 47 kDa

**Tag:** C-His & Fc

**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.

**Purity:** > 98 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:** Functional ELISA

**Synonyms:** APO2;CD261;DR4;MGC9365;TNFRSF10A;TRAILR;TRAILR1

## Immunogen Information:

**Sequence:** Met 1-Asn 239

## Background:

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.