



# Recombinant Protein Technical Manual

## Recombinant Human TRAIL Protein

RPES3456

### Product Data:

**Product SKU:** RPES3456

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** NP\_003801.1

### Protein Information:

**Molecular Mass:** 19.6 kDa

**AP Molecular Mass:** 19 kDa

**Tag:**

**Bio-activity:**

**Purity:** > 97 % as determined by reducing SDS-PAGE.

**Endotoxin:** Please contact us for more information.

**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 40mM Tris, 0.3 M NaCl, pH 7.0

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

**Application:**

**Synonyms:** Tumor Necrosis Factor Ligand Superfamily Member 10; Apo-2 Ligand; Apo-2L; TNF-Related Apoptosis-Inducing Ligand; Protein TRAIL; CD253; TNFSF10; APO2L; TRAIL

## Immunogen Information:

**Sequence:** Val 114-Gly 281

## Background:

Tumor necrosis factor ligand superfamily member 10 (TNFSF10), 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. TNFSF10 / Apo-2L / CD253 functions as a ligand that induces the process of cell death called apoptosis. TNFSF10 / TRAIL shows homology to other members of the tumor necrosis factor superfamily. As one member of the cluster of differentiation system, TNFSF10 / 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 320 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 TNFSF10 / Apo-2L / CD253 / TRAIL binds to several members of TNF receptor superfamily including TNFRSF10A / TRAILR1, TNFRSF10B / TRAILR2, TNFRSF10C / TRAILR3, TNFRSF10D / TRAILR4, and possibly also to TNFRSF11B/OPG. The activity of TNFSF10 / TRAIL may be modulated by binding to the decoy receptors TNFRSF10C / TRAILR3, TNFRSF10D/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.