

Active Recombinant Human TNFSF10 Protein (169 aa)

Cat. No. TNFSF10-302T Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human TRAIL/Apo2L (rhTRAIL) produced in E. coli is a single non-glycosylated polypeptide chain containing 169 amino acids. A fully biologically active molecule, rhTRAIL has a molecular mass of 19.6 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques.
Species	Human
Source	E.coli
ProteinLength	169
Description	TRAIL/Apo2L, also known as Tumor Necrosis Factor Super-Family 10 (TNFSF10), is a pleiotropic cytokine that belongs to the TNF superfamily. The full length TRAIL expressed in vivo is a Type II transmembrane protein, although the soluble form also exists and functions. TRAIL has four major receptors: two death receptors DR4 and DR5, two decoy receptors DcR1 and DcR2. TRAIL binds to the death receptors, recruits the FAS-associated death domain, activates caspases 8 and 10, and eventually leads to apoptosis. Because of its antitumor potential, TRAIL is actively studied as a therapeutic agent. On the other hand, abnormal expression of TRAIL in small arteries can induce the proliferation of smooth muscle cells, resulting in increasing vascular remodeling and pulmonary arterial hypertension.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	ED50 < 40 ng/mL, measured by the cell growth inhibitory assay using RPMI-8226

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cells, corresponding to a specific activity of $> 2.5 \times 10^4$ units/mg.

Molecular Mass 19.6 kDa, observed by reducing SDS-PAGE.

AA Sequence MVRERGPQRVAAHITGTRGRSNTLSSPNSKNEKALGRKINSWESSRSGHSFSLNLH
LRNGELVIHEKGFYYIYSQTYFRFQEEIKENTKNDKQMVQYIYKYTSYPDPILLMKSA
RNSCWSKDAEYGLYSIQGGIFELKENDRIFVSVTNEHLIDMDHEASFFGAFLVG

Endotoxin < 0.2 EU/ μ g, determined by LAL method.

Purity $> 95\%$ as analyzed by SDS-PAGE and HPLC.

Storage Lyophilized recombinant human TRAIL/Apo2L (rhTRAIL) remains stable up to 6 months at -80 centigrade from date of receipt. Upon reconstitution, rhTRAIL remains stable up to 2 weeks at 4 centigrade or up to 3 months at -20 centigrade.

Storage Buffer Lyophilized after extensive dialysis against PBS.

Reconstitution Reconstituted in ddH₂O or PBS at 100 μ g/mL.

GENE INFORMATION

Gene Name TNFSF10 tumor necrosis factor (ligand) superfamily, member 10 [Homo sapiens]

Official Symbol TNFSF10

Synonyms TNFSF10; tumor necrosis factor (ligand) superfamily, member 10; tumor necrosis factor ligand superfamily member 10; Apo 2L; CD253; TL2; TRAIL; Apo-2 ligand; TNF-related apoptosis inducing ligand TRAIL; tumor necrosis factor (ligand) family, member 10; chemokine tumor necrosis factor ligand superfamily member 10; tumor necrosis factor apoptosis-inducing ligand splice variant delta; APO2L; Apo-2L;

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Gene ID	8743
mRNA Refseq	NM_001190942
Protein Refseq	NP_001177871
MIM	603598
UniProt ID	P50591

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