

DATASHEET
Version 20181206**Trail, Mouse****Cat. No.:** Z03367-1**Size:** 1.0 mg**Synonyms:** Tumor necrosis factor-related apoptosis-inducing ligand (TRAIL/Apo2L), Mouse**Description:**

TNF-related apoptosis-inducing ligand (TRAIL), also known as Tumor Necrosis Factor Super-Family 10 (TNFSF10) or apoptosis 2 ligand (Apo2L), is a pleiotropic cytokine that belongs to the TNF super-family. 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, and two decoy receptors DcR1 and DcR2. TRAIL binds to the death receptors which recruits the FAS-associated death domain and activates caspases 8 and 10 which 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, thereby increasing vascular remodeling and pulmonary arterial hypertension.

Recombinant Mouse TRAIL produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 174 amino acids. A fully biologically active molecule, rmTRAIL has a molecular mass of 20 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 GRGGRPQKVA AHITGITRRS NSALIPISKD GKTLGQKIES
00041 WESSRKGHFS LNHVLFNNGE LVIEQEGLYY IYSQTYFRFQ
00081 EAEDASKMVS KDKVRTKQLV QYIYKYTSYP DPIVLMKSAR
00121 NSCWSRDAEY GLYSIQGGL FELKKNDRIF VSVTNEHLM
00161 LDQEASFFGA FLIN
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Source: *E. coli***Biological Activity:** ED₅₀ < 100 ng/mL, measured by the cell growth inhibitory assay using RPMI-8226 cells, corresponding to a specific activity of >1 × 10⁴ units/mg.**Molecular Weight:** 20 kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized from a 0.2 µm filtered solution in PBS.**Reconstitution:** Reconstituted in sterile ddH₂O or PBS at 100 µg/ml.**Purity:** > 98% as analyzed by SDS-PAGE.**Endotoxin Level:** < 0.2 EU/µg, determined by LAL method.**Storage:** Lyophilized recombinant Mouse TRAIL remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Mouse TRAIL should be stable up to 1 week at 4°C or up to 3 months at -20°C under sterile conditions. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.