

TRAIL Murine E. coli

Product Data Sheet

Type: Recombinant	Cat. No.:	
Source: E. coli	RBG20126010	(10 µg)
Species: Murine	RBG20126050	(50 µg)
Other names: TNF-related apoptosis-inducing ligand	RBG20126100	(100 µg)

Description

TRAIL is a cytotoxic protein, which activates rapid apoptosis in tumor cells, but not in normal cells. TRAIL-induced apoptosis is achieved through binding to two death-signaling receptors, DR4 and DR5. These receptors belong to the TNFR superfamily of transmembrane proteins, and contain a cytoplasmic "death domain", which activates the cell's apoptotic machinery. Recombinant Murine TRAIL is a 174 amino acid polypeptide (20.0 kDa), consisting of the TNF-homologous portion of the extracellular domain of the full length TRAIL protein.

Introduction to the Molecule

TRAIL is a member of the TNF family which mediates cell death in a wide variety of malignant cell lines and primary tumor cells. It induces two different signals: cell death mediated by caspases and gene induction mediated by NFkappaB. TRAIL, which is ubiquitously expressed, exhibits very complex signalling and tumor-selective induction of apoptosis. TRAIL is involved in lymphatic neoplastic disorders and thyroid diseases and in the treatment of cancer like melanoma.

Research topic

Apoptosis, Oncology

Amino Acid Sequence

MRGGRPQKVA AHITGITRRS NSALIPISKD GKTLGQKIES WESSRKGHSF LNHVLFNRNGE LVIEQEGLYY IYSQTYFRFQ
EAEDASKMVS KDKVRTKQLV QYIYKYTSYP DPIVLMKSAR NSCWSRDAEY GLYSIYQGGL FELKKNDRIF VSVTNEHLMD
LDQEASFFGA FLIN

Source

E. coli

Purity

95%

Biological Activity

Assay#1: Determined by the dose-dependent stimulation of MIP-2 production by mouse spleen cells using a concentration range of 10-100 ng/ml.

Assay#2: Measured by its ability to induce apoptosis in LN-18 cells (human glioblastoma cells). The expected ED50 for this effect is 40.0-60.0 ng/ml.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.5-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

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