



## TNF-Related Apoptosis Inducing Ligand/Apo2L, human recombinant (rHuTRAIL)

**Catalog No:** 87359  
**Lot No:** XXXXX  
**Source:** *E. coli*  
**Synonyms:** Tumor necrosis factor ligand superfamily member 10, TNF-related apoptosis-inducing ligand, Protein TRAIL, Apo-2 ligand, Apo-2L, CD253 antigen, TL2, APO2L, TNFSF10

### Background

TNF-related apoptosis-inducing ligand (TRAIL) is a ligand molecule which induces apoptosis. It is a type II transmembrane protein with homology to other members of the tumor necrosis factor family. In humans, the gene that encodes for TRAIL is located at chromosome 3q26. TRAIL binds to the death receptors, DR4 and DR5. The process of apoptosis is caspase-8-dependent. This protein preferentially induces apoptosis in transformed and tumor cells, but does not appear to kill normal cells although it is expressed at a significant level in most normal tissues.

### Description

TRAIL/APO 2 Ligand human recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 168 amino acids (Met+Arg115-Gly281) and having a molecular mass of approx. 21 kDa. sTRAIL is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

### Formulation

Lyophilized from a filtered (0.2 µm) solution containing 20 mM Tris-HCl pH 8.0 and 150 mM NaCl.

### Solubility

It is recommended to reconstitute the lyophilized TRAIL in sterile 18 MΩ-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

### Stability

Lyophilized APO 2 Ligand, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TRAIL should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Purity

Greater than 95.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

### Amino Acid Sequence

MRERGPQRVA AHITGTRGRS NTLSSPNSKN EKALGRKINS WESSRSGHSF LSNLHLRNGE LVIHEKGFYY IYSQTYFRFQ  
EEIKENTKND KQMVQYIYKY TSYDPDILLM KSARNSCWSK DAEYGLYSIY QGGIFELKEN DRIFVSVTNE HLIDMDHEAS  
FFGAFLVG

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### **Activity**

The activity is determined by the cytolysis of murine L929 cells in the presence of Actinomycin D, ED50 for this effect is less than 2 ng/ml, corresponding to a specific activity of 5,000,000 IU/mg.

### **Usage**

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