

# Recombinant human TRAIL/TNFSF10 protein

Catalog Number: ATGP3588

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

114-281aa

### UniProt No.

P50591

### NCBI Accession No.

NP\_003801

### Alternative Names

Tumor necrosis factor ligand superfamily member 10, Apo-2 ligand, Apo-2L, TNF-related apoptosis-inducing ligand, Protein TRAIL, CD253, APO2L, TL2, TANCR

## PRODUCT SPECIFICATION

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### Molecular Weight

19.6 kDa (169aa)

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 7.5) containing 300mM NaCl, 0.1mM DTT, 10% glycerol

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured in a cytotoxicity assay using Jurkat human acute T cell leukemia cells. The ED50 range  $\leq$ 1ng/ml.

### Tag

Non-Tagged

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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# Recombinant human TRAIL/TNFSF10 protein

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## Description

TNF-related apoptosis-inducing ligand (TRAIL) belongs to the tumor necrosis factor (TNF) cytokine family and induces rapid apoptosis in a wide variety of tumor cell lines upon binding to the death-signalling receptors on the cell membrane. TRAIL binds to one of four receptors that have been identified in humans, including TRAIL-R1/DR4, TRAIL-R2/KILLER/DR5, TRAIL-R3/DcR1/TRID, and TRAIL-R4/DcR2/TRUNDD. Both DR4 and DR5 are pro-apoptotic receptors, which contain a cytoplasmic death domain and mediate apoptosis on binding to TRAIL. By contrast, TRID and TRUNDD do not contain a cytoplasmic death domain and block the function of TRAIL by competing with DR4 and DR5 for binding of TRAIL. Recombinant human TRAIL was expressed in *E. coli* and purified by using conventional chromatography techniques.

## Amino acid Sequence

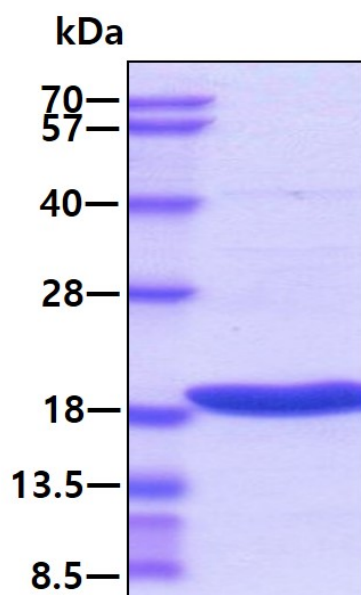
MVRRERGPQRV AAHITGTRGR SNTLSSPNSK NEKALGRKIN SWESSRSGHS FLSNLHLRNG ELVIHEKGFY YIYSQTYFRF  
QEEIKENTKN DKQMVQYIYK YTSYDPILL MKSARNSCWS KDAEYGLYSI YQGGIFELKE NDRIFVSVTN EHLIDMDHEA  
SFFGAFLVG

## General References

Janssen EM., et al. (2005). *Nature*. 434(7029):88-93.  
Deocaris CC., et al. (2007) *Ann N Y Acad Sci*. 1119:165-75

## DATA

### SDS-PAGE



3 $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

## Biological Activity

## Recombinant human TRAIL/TNFSF10 protein

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Human TRAIL/TNFSF10 stimulates cell cytotoxicity in the Jurkat human acute T cell leukemia cells. The ED50 range  $\leq 1$  ng/ml.

