

TECHNICAL DATA SHEET

Recombinant Human TRAIL/Apo2 Ligand (Carrier-Free)

Catalog Number: 21-9180

RPx-Pro™ Recombinant Protein
PRODUCT INFORMATION

CONTENTS

Recombinant Human TRAIL/Apo2 Ligand (Carrier-Free)

DESCRIPTION

TRAIL/Apo2L 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. The full length human TRAIL/Apo2L is a 281 amino acid protein, consisting of a 17 amino acid cytoplasmic domain, a 21 amino acid transmembrane domain, and a 243 amino acid extracellular domain.

MOLECULAR MASS

Recombinant Human soluble TRAIL/Apo2L is a 168 amino acid polypeptide (19.6 kDa), consisting of the TNF-homologous portion of the extracellular domain of the full length TRAIL/Apo2L protein.

AMINO ACID SEQUENCE

MRERGPQRVA AHITGTRGRS NTLSSPNSKN EKALGRKINS WESSRSGHSF LSNLHLRNGE LVIHEKGFY IYSQTYFRFQ EEIKENTKND KQMVQYIYKY
 TSYDPILLM KSARNSCWSK DAEYGLYSIY QGGIFELKEN DRIFVSVTNE HLDMDHEAS FFGAFLVG

SOURCE

E. coli

APPLICATIONS

Bioassay

PURITY

98 %

STORAGE

-20°C

PROTEIN CONTENT

Content Verified by UV Spectroscopy and/or SDS-PAGE gel.

ENDOTOXIN LEVEL

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

AUTHENTICITY

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

CROSS REACTIVITY

Bacteria, Chicken, Human, Mous

BIOACTIVITY

Assay#1:Determined by its ability to induce apoptotic cell death in TRAIL-sensitive U343MG cells. The expected ED50 for this effect is 1.0-3.0 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 0.8 - 2.0 ng/ml.

RESEARCH AREAS

TNF Superfamily, Apoptosis, Cancer

RECONSTITUTION

See Certificate of Analysis (COA) for lot specific reconstitution information.

REFERENCES

Norian, L.A. Synergistic Induction of Apoptosis in Primary B-CLL Cells after Treatment with Recombinant Tumor Necrosis Factor-Related Apoptosis-Inducing Ligand and Histone Deacetylase Inhibitors. 2009. The Journal of Clinical Oncology; 2009:408038. Elias, A. Epigenetic silencing of death receptor 4 mediates tumor necrosis factor-related apoptosis-inducing ligand resistance in gliomas. 2009. Clinical Cancer Research; 15(17):5457-65.

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