TRAIL Active Protein

PRODUCT OVERVIEW

Product Name	TRAIL, Active Protein
Full Product Name	TRAIL (soluble) (mouse), (recombinant)
Product Gene Name	TRAIL active protein
Host	E Coli
Form/Format	Liquid. In PBS containing 0.1mM DTT
Purity/Purification	>=95% (SDS-PAGE) Purified by multi-step chromatography
Preparation and Storage	For long term storage, store at -80 degree C Shipping: Shipped on Dry Ice
Molecular Weight	32,509 Da
Chromosome Location	Chromosome: 3; NC_000003.11 (172223298..172241297, complement). Location: 3q26
OMIM	603598
3D Structure	ModBase 3D Structure for P50591
Active Protein Note	Protein activity can be an ambiguous term. Please refer to the data sheet or inquire with Technical Support to determine the definition of activity for this product.
Endotoxin	<0.1EU/ug TRAIL, determined using chromogenic Limulus amebocyte lysate (LAL) test
Biological Activity	Induces apoptosis at 0.1 and 1.0ug/ml, in primary cultured mouse hepatocytes, in the presence of cycloheximide (5ug/ml) or actinomycin D (0.5ug/ml). Induces apoptosis in Jurkat cells (a TRAIL-sensitive human cell line) at 1ug/ml, within 3 hours. Inhibits secondary clonal expansion of mouse CD8+ T cells in vitro (50ng/ml and greater)
Solubility	Soluble mouse TRAIL (aa118-291)
Product Categories/Family for TRAIL active protein	Cellular Analysis; Cell Signaling
Related Product Information for TRAIL active protein	MBS566704 is an active protein targeting TRAIL. Also known as TRAIL (soluble) (mouse), (recombinant). Host: E Coli. Ligand for TRAIL receptor (DR4, DR5).
Other Notes	Small volumes of TRAIL active protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TRAIL. It may not necessarily be applicable to this product.

NCBI GI #	300193032
NCBI GeneID	8743
NCBI Accession #	NP_001177871.1
UniProt Primary Accession #	P50591
UniProt Secondary Accession #	A1Y9B3
UniProt Related Accession #	P50591

GenBank Nucleotide #	NM_001190942.1
NCBI Official Full Name	tumor necrosis factor ligand superfamily member 10 isoform 2
NCBI Official Synonym Full Names	tumor necrosis factor (ligand) superfamily, member 10
NCBI Official Symbol	TNFSF10
NCBI Official Synonym Symbols	TL2; APO2L; CD253; TRAIL; Apo-2L
UniProt Protein Name	Tumor necrosis factor ligand superfamily member 10
UniProt Synonym Protein Names	Apo-2 ligand; Apo-2L; TNF-related apoptosis-inducing ligand
Protein Family	Tumor necrosis factor ligand superfamily
UniProt Gene Name	TNFSF10
UniProt Synonym Gene Names	APO2L; TRAIL; Apo-2L
UniProt Entry Name	TNF10_HUMAN
NCBI Protein Information	tumor necrosis factor ligand superfamily member 10; Apo-2 ligand; TNF-related apoptosis inducing ligand TRAIL; tumor necrosis factor (ligand) family, member 10; chemokine tumor necrosis factor ligand superfamily member 10; tumor necrosis factor apoptosis-
NCBI Summary for TRAIL	The protein encoded by this gene is a cytokine that belongs to the tumor necrosis factor (TNF) ligand family. 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. This protein binds to several members of TNF receptor superfamily including TNFRSF10A/TRAILR1, TNFRSF10B/TRAILR2, TNFRSF10C/TRAILR3, TNFRSF10D/TRAILR4, and possibly also to TNFRSF11B/OPG. The activity of this protein may be modulated by binding to the decoy receptors TNFRSF10C/TRAILR3, TNFRSF10D/TRAILR4, and TNFRSF11B/OPG that cannot induce apoptosis. The binding of this protein to its receptors has been shown to trigger the activation of MAPK8/JNK, caspase 8, and caspase 3. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2010]
UniProt Comments for TRAIL	TRAIL: Cytokine that binds to TNFRSF10A/TRAILR1, TNFRSF10B/TRAILR2, TNFRSF10C/TRAILR3, TNFRSF10D/TRAILR4 and possibly also to TNFRSF11B/OPG. Induces apoptosis. Its activity may be modulated by binding to the decoy receptors TNFRSF10C/TRAILR3, TNFRSF10D/TRAILR4 and TNFRSF11B/OPG that cannot induce apoptosis. Homotrimer. Widespread; most predominant in spleen, lung and prostate. Belongs to the tumor necrosis factor family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Cytokine; Membrane protein, integral Chromosomal Location of Human Ortholog: 3q26 Cellular Component: extracellular space; integral to plasma membrane; extracellular region Molecular Function: protein binding; metal ion binding; cytokine activity; tumor necrosis factor receptor binding; receptor binding Biological Process: caspase activation; positive regulation of I-kappaB kinase/NF-kappaB cascade; cell-cell signaling; positive regulation of apoptosis; apoptosis; male gonad development; positive regulation of caspase activity; immune response; signal transduction; response to insulin stimulus
Research Articles on TRAIL	**1.** oncogene metadherin modulates the apoptotic pathway based on the tumor necrosis factor superfamily member TRAIL (Tumor Necrosis Factor-related Apoptosis-inducing Ligand) in breast cancer
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