

TRAIL/TNFSF10 Protein, Mouse (His,Solution)

Cat. No.:	HY-P7089
Synonyms:	rMuTRAIL/TNFSF10; TNF-related apoptosis-inducing ligand; Tumor necrosis factor ligand superfamily member 10
Species:	Mouse
Source:	E. coli
Accession:	P50592 (P118-N291)
Gene ID:	22035
Molecular Weight:	Approximately 22.0 kDa

PROPERTIES

AA Sequence	<pre> P R G G R P Q K V A A H I T G I T R R S N S A L I P I S K D G K T L G Q K I E S W E S S R K G H S F L N H V L F R N G E L V I E Q E G L Y Y I Y S Q T Y F R F Q E A E D A S K M V S K D K V R T K Q L V Q Y I Y K Y T S Y P D P I V L M K S A R N S C W S R D A E Y G L Y S I Y Q G G L F E L K K N D R I F V S V T N E H L M D L D Q E A S F F G A F L I N </pre>
Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of PBS, 25% glycerol, pH7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	<p>TRAIL Protein (TNFSF10), a member of the TNF superfamily, is a type II transmembrane protein. TRAIL Protein is expressed in various tissues, especially in the spleen, lung, and prostate. TRAIL protein is mainly expressed on surface of immune cells, such as cytotoxic T cells and natural killer (NK) cell. TRAIL proteins on NK and T cells is critical for controlling virus infections and tumor immune surveillance^{[1][2]}.</p> <p>Mouse TRAIL consists of cytoplasmic domain (M1-R17), helical domain (M18-T38), and extracellular domain (Y39-N291). Mouse TRAIL Protein shares < 70% common aa identity with human. Mouse TRAIL Protein shares 86.94% common aa identity with rat.</p> <p>TRAIL Protein mainly interacts with two agonistic TRAIL receptors (TRAIL-R1 and TRAIL-R2) and induces apoptosis in tumor</p>
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or infected cells. TRAIL Protein also binds with DR4, DR5, and OPG. When binding to DR4 or DR5, TRAIL Protein can recruit FADD and further recruit and activates caspase-8. Besides, TRAIL may also trigger nonapoptotic signaling through activating pro-inflammatory pathways, such as NF- κ B, PI3K/Akt, and MAPK pathway^{[1][2]}.

TRAIL induces apoptosis of tumor cells in a p53 independent manner. TRAIL-based therapies has high anti-tumor potential [3].

REFERENCES

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