TRAIL R2/TNFRSF10B Protein, Human (127a.a, HEK293, His)

Cat. No.:	HY-P70806
Synonyms:	Tumor Necrosis Factor Receptor Superfamily Member 10B; Death Receptor 5; TNF-Related Apoptosis-Inducing Ligand Receptor 2; TRAIL Receptor 2; TRAIL-R2; CD262; TNFRSF10B; DR5; KILLER; TRAILR2; TRICK2; ZTNFR9
Species:	Human
Source:	HEK293
Accession:	O14763 (I56-E182)
Gene ID:	8795
Molecular Weight:	Approximately 18.0 kDa

PROPERTIES

AA Sequence	I T Q Q D L A P Q Q R A A P Q Q K R S S P S E G L C P P G H H I S E D G R D C I S C K Y G Q D Y S T H W N D L L F C L R C T R C D S G E V E L S P C T T T R N T V C Q C E E G T F R E E D S P E M C R K C R T G C P R G M V K V G D C T P W S D I E C V H K E
Biological Activity	Measured by its ability to inhibit TRAIL-mediated cytotoxicity using L929 mouse fibroblast cells treated with TRAIL. The ED_{50} for this effect is 4.179 ng/mL , corresponding to a specific activity is 2.393×10^5 units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US;may vary elsewhere.

DESCRIPTION

Background	The TRAIL R2/TNFRSF10B Protein functions as a receptor for the cytotoxic ligand TNFSF10/TRAIL. Upon ligand binding, the adapter molecule FADD recruits caspase-8 to the activated receptor, forming the death-inducing signaling complex (DISC), which triggers caspase-8 proteolytic activation and initiates the subsequent cascade of caspases, mediating apoptosis. Additionally, TRAIL R2/TNFRSF10B promotes the activation of NF-kappa-B and is essential for endoplasmic reticulum (ER) stress-induced apoptosis. In its monomeric state, it can interact with TRADD and RIPK1, and in the absence of stimulation, it

interacts with BIRC2, DDX3X, and GSK3B. Stimulation of the receptor enhances interactions with BIRC2 and DDX3X, accompanied by their cleavage. Notably, TRAIL R2/TNFRSF10B can also interact with the HCMV protein UL141, preventing cell surface expression, where two TNFRSF10B monomers interact with a UL141 homodimer, and three TNFRSF10B molecules interact with TNFSF10 homotrimer. These intricate interactions underline the multifaceted role of TRAIL R2/TNFRSF10B in apoptotic and signaling pathways.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA