Cytokines

Mouse Recombinant TRAIL

TNF-related apoptosis-inducing ligand

Catalog #	78122	10 µg
	78122.1	50 µg

STEMCELL™ TECHNOLOGIES
Scientists Helping Scientists™ | WWW.STEMCELL.COM
TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713
INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM
FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Product Description

TRAIL (TNF-related apoptosis-inducing ligand) belongs to the tumor necrosis factor (TNF) superfamily and is associated with initiating apoptosis. TRAIL has four major receptors: two death receptors DR4 and DR5, and two decoy receptors DcR1 and DcR2. TRAIL binds to the death receptors, which recruits the Fas-associated death domain (FADD) and activates caspases 8 and 10, which eventually leads to apoptosis (Pitti et al.; Wiley et al.; Zauli & Secchiero). It has been shown that mice lacking the expression of TRAIL have defects in thymocyte apoptosis and negative selection, and these mice had increased susceptibility to autoimmune diseases (Lamhamedi-Cherradi et al.).

Product Information

Alternative Names:	TL2, TNF-related apoptosis-inducing ligand, TNFSF10
Accession Number:	P50592
Amino Acid Sequence:	GRGGRPQKVA AHITGITRRS NSALIPISKD GKTLGQKIES WESSRKGHSF LNHVLFRNGE LVIEQEGLYY IYSQTYFRFQ EAEDASKMVS KDKVRTKQLV QYIYKYTSYP DPIVLMKSAR NSCWSRDAEY GLYSIYQGGL FELKKNDRIF VSVTNEHLMD LDQEASFFGA FLIN
Predicted Molecular Mass:	20 kDa
Species:	Mouse
Cross Reactivity:	Human
Formulation:	Lyophilized from a filtered solution in phosphate-buffered saline.
Source:	E. coli

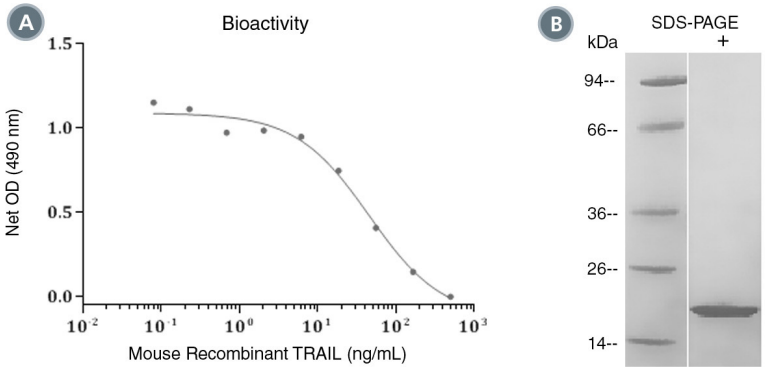
Specifications

Activity:	The specific activity is ≥ 1.0 x 10^4 units/mg (EC50 ≤ 100 ng/mL) as determined by the ability to inhibit RPMI-8226 cell proliferation.
Purity:	≥ 98%
Endotoxin Level:	Measured by kinetic Limulus amebocyte lysate (LAL) analysis and is ≤ 0.2 EU/µg protein.

Preparation and Storage

Storage:	Store at -80°C.
Stability:	Stable as supplied for 12 months from date of receipt.
Preparation:	Centrifuge vial before opening. Resuspend the product in sterile water or phosphate-buffered saline containing 0.1% bovine serum albumin (BSA) to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. Store at 2 - 8°C for up to 1 week or at -20°C to -80°C for up to 3 months. Avoid repeated freeze-thaw cycles. NOTE: If reconstituted product will be used immediately BSA is not required.

Data



(A) The biological activity of Mouse Recombinant TRAIL was tested by its ability to inhibit the proliferation of RPMI-8226 cells. Cell proliferation was measured using a fluorometric assay method. The EC50 is defined as the effective concentration of the growth factor at which cell proliferation is at 50% of maximum. The EC50 in the above example is less than 100 ng/mL.
(B) 2 µg of Mouse Recombinant TRAIL was resolved with SDS-PAGE under reducing (+) conditions and visualized by Coomassie Blue staining.

Related Products

For a complete list of cytokines, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/cytokines or contact us at techsupport@stemcell.com.

References

Lamhamedi-Cherradi S-E et al. (2003) Defective thymocyte apoptosis and accelerated autoimmune diseases in TRAIL–/– mice. Nat Immunol 4(3): 255–60.
Pitti RM et al. (1996) Induction of apoptosis by Apo-2 ligand, a new member of the tumor necrosis factor cytokine family. J Biol Chem 271(22): 12687–90.
Wiley SR et al. (1995) Identification and characterization of a new member of the TNF family that induces apoptosis. Immunity 3(6): 673–82.
Zauli G & Secchiero P. (2006) The role of the TRAIL/TRAIL receptors system in hematopoiesis and endothelial cell biology. Cytokine Growth Factor Rev 17(4): 245–57.