

Cytokines

Mouse Recombinant TRAIL



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TNF-related apoptosis-inducing ligand

Catalog # 78122
78122.1

10 µg
50 µg

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 LNHVLFNRNGE LVIEQEGLYY IYSQTYFRFQ EAEDASKMVS KDKVRTKQLV QYIYKYTSYP DPIVLMKSAR NSCWSRDAEY GLYSIQGGGL 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

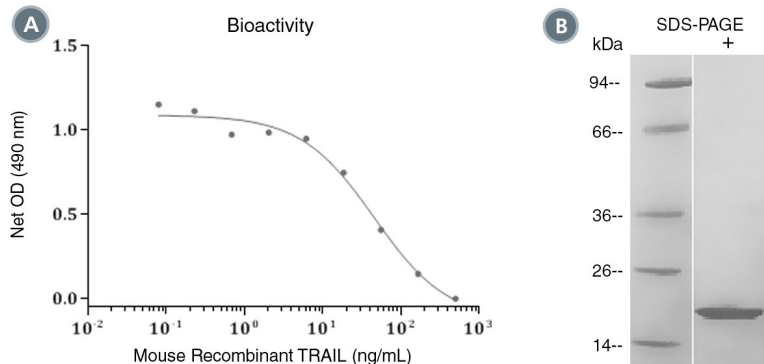
Activity: The specific activity is $\geq 1.0 \times 10^4$ units/mg ($EC_{50} \leq 100$ ng/mL) as determined by the ability to inhibit RPMI-8226 cell proliferation.
Purity: $\geq 98\%$
Endotoxin Level: Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is ≤ 0.2 EU/µg protein.

Preparation and Storage

Storage: Store at -80°C .
Stability: Stable as supplied for 12 months from date of receipt.
Preparation: Centrifuge vial before opening. Reconstitute the product in sterile water to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex.

OPTIONAL: After reconstitution, if product will not be used immediately, dilute with concentrated bovine serum albumin (BSA) to a final BSA concentration of 0.1%. The effect of storage of stock solution on product performance should be tested for each application. As a general guide, do not store at $2 - 8^\circ\text{C}$ for more than 1 week or at -20°C for more than 3 months. Avoid repeated freeze-thaw cycles.

Data



(A) The biological activity of Mouse Recombinant TRAIL was tested by its ability to inhibit the proliferation of RPMI-8226 cells. Inhibition of 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 inhibition is at 50% of maximum. The EC50 in the above example is less than 100 ng/mL.

(B) 2 μ g of Mouse Recombinant TRAIL was resolved with SDS-PAGE under reducing (+) conditions and visualized by Coomassie Blue staining. Mouse Recombinant TRAIL has a predicted molecular mass of 20 kDa.

Related Products

For a complete list of cytokines, as well as related products available from STEMCELL Technologies, visit 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.

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