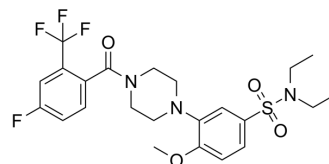


BT-13

Cat. No.:	HY-124401		
CAS No.:	924537-98-4		
Molecular Formula:	C ₂₃ H ₂₇ F ₄ N ₃ O ₄ S		
Molecular Weight:	517.54		
Target:	RET		
Pathway:	Protein Tyrosine Kinase/RTK		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 25 mg/mL (48.31 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	1.9322 mL	9.6611 mL	19.3222 mL
				5 mM	0.3864 mL	1.9322 mL	3.8644 mL
				10 mM	0.1932 mL	0.9661 mL	1.9322 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (4.83 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (4.83 mM); Clear solution						

BIOLOGICAL ACTIVITY

Description	BT-13 is a potent and selective glial cell line-derived neurotrophic factor (GDNF) receptor RET agonist independently of GFLs, promoting neurite growth from sensory neurons in vitro and attenuates experimental neuropathy in the Rat ^[1] .
IC ₅₀ & Target	GDNF receptor RET ^[1] .
In Vitro	BT-13 stimulates phosphorylation of RET, as well as RET-dependent intracellular signaling, but activated neither NGF receptor TrkA nor BDNF receptor TrkB nor intracellular signaling in the absence of RET ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	BT-13 (20 and 25mg/kg in rats induced by ligation of left L5 and L6 spinal nerves) has a slight antinociceptive/antihyperalgesic effect and protected DRG neurons in rats with surgery-induced neuropathy ^[1] .

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Rats induced by ligation of left L5 and L6 spinal nerves ^[1] .
Dosage:	5-25 mg/kg, dissolved in sesame oil containing 5% DMSO.
Administration:	Subcutaneous injections on post-surgical day 1, 3, 5, 8, 10, and 12.
Result:	20 and 25mg/kg decreased mechanical hypersensitivity and normalized expression of sensory neuron markers in dorsal root ganglia.

CUSTOMER VALIDATION

- Cell Oncol. 2023 Feb 20.

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REFERENCES

[1]. Sidorova YA, et al. A Novel Small Molecule GDNF Receptor RET Agonist, BT13, Promotes Neurite Growth from Sensory Neurons in Vitro and Attenuates Experimental Neuropathy in the Rat. *Front Pharmacol.* 2017 Jun 21;8:365.

Caution: Product has not been fully validated for medical applications. For research use only.

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