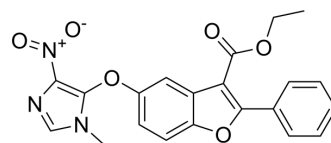


OB-1

Cat. No.:	HY-122671
CAS No.:	300803-69-4
Molecular Formula:	C ₂₁ H ₁₇ N ₃ O ₆
Molecular Weight:	407.38
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vitro

DMSO : 12.73 mg/mL (31.25 mM; ultrasonic and warming and heat to 60°C)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.4547 mL	12.2736 mL	24.5471 mL
	5 mM	0.4909 mL	2.4547 mL	4.9094 mL
	10 mM	0.2455 mL	1.2274 mL	2.4547 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

OB-1 is a stomatin-like protein-3 (STOML3) oligomerization blocker. OB-1 is an effective inhibitor of the self-association of Stomatin, STOML1 and STOML2, but not podocin^[1].

IC₅₀ & Target

Stomatin, STOML1, STOML2, STOML3^[1]

In Vitro

OB-1 (3 h) reduces mechanotransduction currents in in N2a cells with an IC₅₀ of 10 nM^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

OB-1 (250-500 pmol per paw; s.c.; once) reversibly reduces the sensitivity of mechanically gated currents in sensory neurons and silence mechanoreceptors in mice^[1].
OB-1 (250 pmol per paw; s.c.; once) alleviates painful diabetic neuropathy in mice^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	C57Bl/6N mice ^[1]
Dosage:	250-500 pmol per paw

Administration:	Subcutaneous injection, once
Result:	Over 40% of A β fibers (19/44) lacked a mechanosensitive receptive field, which was significantly different from that in vehicle-injected controls, where less than 7% (5/69 fibers) were found to be insensitive to mechanical stimuli. Reduced touch perception. Reversed tactile allodynia.
Animal Model:	Eight-week-old C57Bl/6 mice, Streptozotocin (HY-13753) model ^[1]
Dosage:	250 pmol per paw
Administration:	Subcutaneous injection, once
Result:	Substantially reversed the mechanical hypersensitivity 4 h after treatment.

REFERENCES

[1]. Wetzell C, et al. Small-molecule inhibition of STOML3 oligomerization reverses pathological mechanical hypersensitivity. *Nat Neurosci.* 2017 Feb;20(2):209-218.

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

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