Evenamide

Cat. No.: HY-17612

CAS No.: 1092977-61-1

Molecular Formula: $C_{16}H_{26}N_2O_2$

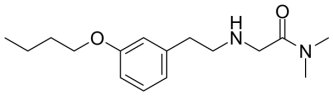
Molecular Weight: 278.39

Target: Sodium Channel

Pathway: Membrane Transporter/Ion Channel

Storage:

Pure form	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (359.21 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.5921 mL	17.9604 mL	35.9208 mL
5 mM	0.7184 mL	3.5921 mL	7.1842 mL
10 mM	0.3592 mL	1.7960 mL	3.5921 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 (8.98 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (8.98 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (8.98 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Evenamide (NW-3509) is an orally available voltage-gated sodium channel (VGSC) blocker (K_i=0.4 μM) for the research of schizophrenia. Evenamide shows efficacy in a broad spectrum of rodent models of psychosis, mania, depression, and aggressiveness[1][2].

IC_{50} & Target

Sodium channel[1]

In Vitro

Evenamide selectively blocks voltage-gated sodium channels (VGSCs) in a voltage-and use-dependent manner (K_i=0.4 μM)

	and modulates sustained repetitive firing without inducing impairment of the normal neuronal excitability. Evenamide does not bind, inhibit or interact with over 130 receptors, enzymes, or transporters[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Evenamide is active in a wide range of psychiatric animal models in monotherapy and addon to antipsychotics. Evenamide is effective in attenuating the social interaction deficit in Cl 395 (PCP)-impaired rats (MED=1 mg/kg po)[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Valentina Zuliani, et al. Advances in Design and Development of Sodium Channel Blockers. Ion Channels and Their Inhibitors pp 79-115.

[2]. Faravelli, et al. P.3.f.022 Evenamide (formerly NW-3509) targets new mechanisms, and represents a new approach to the management of untreated symptoms in schizophrenia.

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