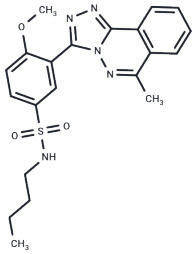
Data Sheet (Cat.No.T36813)

TargetMol

Lu AE98134

Chemical Properties



CAS No. : 849000-18-6

Formula: C21H23N5O3S

Molecular Weight: 425.5

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Lu AE98134, an activator of voltage-gated sodium channels, acts as a partly selective positive modulator of Nav1.1 channels and also increases the activity of Nav1.2 and Nav1.5 channels while not affecting Nav1.4, Nav1.6, and Nav1.7 channels. Lu AE98134 can be used to analyze pathophysiological functions of the Nav1.1 channel in various central nervous system diseases, including cognitive restoring in schizophrenia, et al[1].
Targets(IC50)	Others,Sodium Channel
In vitro	Lu AE98134 (30 μM) enhances Navv1.1-mediated currents and activates Nav1.5 and, to a lesser extent, Nav1.2, while it has no effect on Nav1.4, Nav1.6, or Nav1.7 currents in HEK cells expressing these channels via step-wise depolarizing voltages using whole-cell patch-clamp configuration[1]. Additionally, Lu AE98134 (30 μM) increases the excitability of FSINs by lowering the action potential threshold, inducing a higher frequency of repetitive firing and increasing the number of spikes generated per current pulse (163 spikes in control vs. 230 spikes with Lu AE98134)[1].
In vivo	FSINs from Dlx5/6+/- animals exhibit abnormal excitability due to a more depolarized spike threshold and broader action potentials. Lu AE98134 (30 μM) enhances the excitability of FSINs neurons from both normal and Dlx5/6+/- animals by modulating parameters characteristic of NaV1.1 channels. Selective activation of FSINs by Lu AE98134 restores cognitive flexibility in adult Dlx5/6+/- mice [1].

Solubility Information

Solubility	DMSO: 250 mg/mL (587.54 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (7.76 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3502 mL	11.7509 mL	23.5018 mL
5 mM	0.470 mL	2.3502 mL	4.7004 mL
10 mM	0.235 mL	1.1751 mL	2.3502 mL
50 mM	0.047 mL	0.235 mL	0.470 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Nadia Lyb?l von Schoubye, et al. The sodium channel activator Lu AE98134 normalizes the altered firing properties of fast spiking interneurons in Dlx5/6 +/- mice. Neurosci Lett. 2018 Jan 1;662:29-35.