

NO 711

Chemical Properties

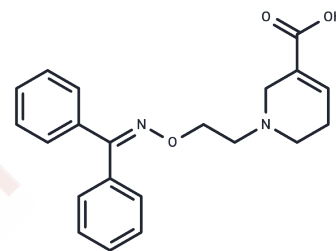
CAS No. : 159094-94-7

Formula: C₂₁H₂₂N₂O₃

Molecular Weight: 350.41

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	NO 711 (NNC-711 free acid) is a potent and selective inhibitor of GABA transporter 1 (GAT-1), which increases GABAergic transmission, enhances non-rapid eye movement sleep, and prevents and treats paclitaxel-induced neuropathic pain.
Targets(IC50)	GABA Receptor
In vitro	Treatment of microglia with NO 711 (1 μM, 0-15 minutes) significantly reduced Na ⁺ -dependent GABA uptake. [2]
In vivo	<p>Methods: 12-, 18-, and 25-day-old rat pups with implanted electrodes were used. Epileptic foci were induced by local application of dithiothreitol methyl iodide (BMI) via an implanted cannula over the sensorimotor cortical area, and cortical afterepileptic discharges (ADs) were induced by low-frequency stimulation (8 Hz) of the same cortical area. Epileptic foci were formed after pretreatment with NO 711 (1 or 10 mg/kg, i.p.), and epileptic ADs were induced in a second experimental series. NNC-711 was then applied at the same dose, and stimulation was repeated.</p> <p>Results: NO 711 did not block the formation of epileptogenic foci, but it significantly inhibited the spontaneous transition of interictal focal to ictal activity in all age groups. In 18- and 25-day-old rats, the intensity of movements accompanying sensorimotor cortical stimulation was smaller under the influence of NNC-711. [1]</p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8538 mL	14.269 mL	28.538 mL
5 mM	0.5708 mL	2.8538 mL	5.7076 mL
10 mM	0.2854 mL	1.4269 mL	2.8538 mL
50 mM	0.0571 mL	0.2854 mL	0.5708 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

Bernásková K, et al. GABA uptake blocker NNC-711 exhibits marked anticonvulsant action in two cortical epileptic models in immature rats. *Epilepsia*. 1999 Sep;40(9):1184-9.

Fattorini G, et al. Microglial expression of GAT-1 in the cerebral cortex. *Glia*. 2020 Mar;68(3):646-655.

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