Data Sheet (Cat.No.T11518)

TargetMol

GW274150 phosphate

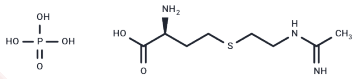
Chemical Properties

CAS No. : 438542-15-5

Formula: C8H20N3O6PS

Molecular Weight: 317.3

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	GW274150 phosphate is a selective, orally active iNOS inhibitor with an IC50 of 0.2 μM in J774 cells. It mitigates experimental renal ischaemia-reperfusion injury and exhibits analgesic effects in rat models of inflammatory and neuropathic pain.
Targets(IC50)	NOS,NO Synthase
In vitro	GW274150 phosphate exhibits time-dependent inhibitory effects on iNOS in J774 cells, with an IC_{50} of 0.2±0.04 μM [1]. GW274150 demonstrates significantly higher selectivity for iNOS derived from rat tissues compared to eNOS and nNOS, being 260-fold and 219-fold more selective, respectively. Similarly, GW274150 shows markedly superior selectivity for homo sapiens iNOS, exhibiting 100-fold and 80-fold greater potency compared to homo sapiens eNOS and homo sapiens nNOS, respectively [1].
In vivo	In the chondrus ocellatus gel-induced rat lung injury model, administration of GW274150 phosphate (2.5, 5, and 10 mg/kg, intraperitoneal injection) before chondrus ocellatus gel injection dose-dependently reduced the severity of lung injury and also significantly attenuated pleural cavity edema formation and polymorphonuclear leukocyte (PMNs) infiltration in a dose-related manner [2]. In the 6-OHDA-induced rat Parkinson's disease (PD) model, GW274150 phosphate administered orally (30 mg/kg, twice daily for 7 consecutive days) exhibited significant neuroprotective effects. However, it should be noted that the neuroprotective efficacy of this compound followed a bell-shaped curve, with its protective effects disappearing at higher doses [3].

Solubility Information

Solubility	H2O: 80 mg/mL (252.13 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1516 mL	15.758 mL	31.5159 mL
5 mM	0.6303 mL	3.1516 mL	6.3032 mL
10 mM	0.3152 mL	1.5758 mL	3.1516 mL
50 mM	0.063 mL	0.3152 mL	0.6303 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

Alderton WK, et al. GW274150 and GW273629 are potent and highly selective inhibitors of inducible nitric oxide synthase in vitro and in vivo.Br J Pharmacol. 2005 Jun;145(3):301-12.
Dugo L, et al. Effects of GW274150, a novel and selective inhibitor of iNOS activity, in acute lung inflammation. Br J Pharmacol. 2004 Mar;141(6):979-87. Epub 2004 Feb
Broom L, et al. Neuroprotection by the selective iNOS inhibitor GW274150 in a model of Parkinson disease.Free Radic Biol Med. 2011 Mar 1;50(5):633-40.