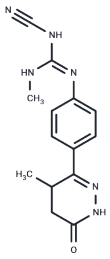
Data Sheet (Cat.No.T12913)

TargetMol

Siguazodan

Chemical Properties



CAS No. : 115344-47-3

Formula: C14H16N6O

Molecular Weight: 284.32

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	Siguazodan (SKF 94836) is an effective, selective, orally active phosphodiesterase III ((PDE-III)) inhibitor with an IC50 of 117 nM. Siguazodan inhibited phenylephrine induced 5-HT release with an IC50 value of 4.2 μM. Siguazodan can increase cAMP accumulation in intact platelets, with EC50 of 18.88 μM.
Targets(IC50)	PDE
In vitro	the major cyclic AMP-hydrolysing PDE in human platelet supernatantsselectively inhibited by Siguazodan . The inhibited enzyme has been variously termed cyclic GMP-inhibited PDE or PDE-III. In platelet-rich plasma (PRP), Siguazodan inhibits U46619-induced aggregation more potently than that induced by adenosine 5'-diphosphate (ADP), and collagen. In washed platelets, Siguazodan increases cyclic AMP levels and reduces cytoplasmic free calcium. ADP decreases the ability of Siguazodan to raise cyclic AMP and this may explain its lower potency in inhibiting responses to ADP. Siguazodan has anti-platelet actions over the same concentration range that it is an inotrope and vasodilator[2].
In vivo	Siguazodan is a selective phosphodiesterase III inhibitor that has positive inotropic and vasodilating actions in various laboratory animals and is orally active with a long duration of action in conscious dogs[2].

Solubility Information

Solubility	DMSO: 50 mg/mL (175.86 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5172 mL	17.5858 mL	35.1716 mL
5 mM	0.7034 mL	3.5172 mL	7.0343 mL
10 mM	0.3517 mL	1.7586 mL	3.5172 mL
50 mM	0.0703 mL	0.3517 mL	0.7034 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

Murray KJ, et al. The effects of siguazodan, a selective phosphodiesterase inhibitor, on human platelet function. Br J Pharmacol. 1990 Mar;99(3):612-6.
Freitag A, et al. Phosphodiesterase inhibitors suppress alpha2-adrenoceptor-mediated 5-hydroxytryptamine release from tracheae of newborn rabbits. Eur J Pharmacol. 1998 Jul 31;354(1):67-71.
Tang KM, et al. Photoaffinity labelling of cyclic GMP-inhibited phosphodiesterase (PDE III) in human and rat platelets and rat tissues: effects of phosphodiesterase inhibitors. Eur J Pharmacol. 1994 Jun 15;268(1):105-14.