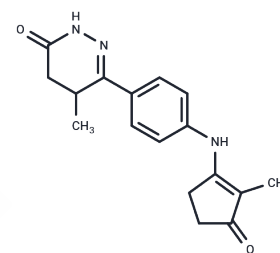


NSP-805

## Chemical Properties

CAS No. : 125068-54-4  
 Formula: C<sub>17</sub>H<sub>19</sub>N<sub>3</sub>O<sub>2</sub>  
 Molecular Weight: 297.35  
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



## Biological Description

Description	NSP-805 is a potent and selective inhibitor of guinea pig cardiac phosphodiesterase 3 (PDE3).
Targets(IC50)	PDE
In vitro	In isolated guinea pig left atria, the positive inotropic EC <sub>50</sub> values (microM) ranked by potency were approximately 0.18 (NSP-805), 0.39 (indolidan), 1.1 (MCI-154), 1.7 (NSP-804, milrinone), 2.0 (denopamine), 4.0 (papaverine), 4.4 3-isobutyl-1-methylxanthine (IBMX), 6.5 (imazodan), and 27 (amrinone)[1].
In vivo	In anesthetized dogs, intravenous (i.v.) injection of NSP-804 and NSP-805 produced dose-dependent increases in left ventricular VVdp/dtmax and decreases in aortic blood pressure (ABP) with relatively small increases in heart rate (HR). The ED <sub>50</sub> values (micrograms/kg) for LVdP/dtmax of NSP-804, NSP-805, denopamine, milrinone, MCI-154, and indolidan were 15, 12, 22, 23, 15, and 7.3, respectively. When administered intraduodenally to anesthetized dogs, the ED <sub>50</sub> values (micrograms/kg) for LVdP/dtmax of NSP-804, NSP-805, milrinone, and indolidan were approximately 30, 10, 200, and 25, respectively. In the propranolol-induced heart failure model, NSP-804 and NSP-805 completely normalized the hemodynamic state. The in vitro positive inotropic effects of NSP-804 and NSP-805 were accompanied by increases in tissue cyclic AMP and abolished by carbachol. NSP-805 was the most potent and selective inhibitor of guinea pig cardiac phosphodiesterase (PDE) III among the agents examined, while NSP-804 was a potent and selective inhibitor of PDE III similar to indolidan[1].

## Solubility Information

Solubility	DMSO: 20 mg/mL (67.26 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	3.363 mL	16.8152 mL	33.6304 mL
5 mM	0.6726 mL	3.363 mL	6.7261 mL
10 mM	0.3363 mL	1.6815 mL	3.363 mL
50 mM	0.0673 mL	0.3363 mL	0.6726 mL

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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.

### Reference

Mochizuki N, et al. Cardiovascular effects of NSP-804 and NSP-805, novel cardiogenic agents with vasodilator properties. *J Cardiovasc Pharmacol.* 1993 Jun;21(6):983-95.

Uchida H, et al. [The effect of phosphodiesterase type 3 inhibitor on chorio-retinal blood flow in rabbits eyes].

*Nippon Ganka Gakkai Zasshi.* 2002 Oct;106(10):615-20.

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