NSP-805

Cat. No.: HY-19102
CAS No.: 125068-54-4
Molecular Formula: C₁₇H₁₉N₃O₂
Molecular Weight: 297.35
Target: Phosphodiesterase (PDE)
Pathway: Metabolic Enzyme/Protease
Storage: Powder
-20°C 3 years
4°C 2 years
In solvent
-80°C 6 months
-20°C 1 month

BIOLOGICAL ACTIVITY

Description
NSP-805 is a potent and selective inhibitor of guinea pig cardiac phosphodiesterase 3 (PDE3), and a cardiotonic agent with vasodilator properties.

In Vitro
In isolated guinea pig left atria, NSP-805 shows positive inotropic EC₅₀ value in order of potency of 0.18 μM. The in vitro positive inotropic effects of NSP-805 is accompanied by increases in tissue cyclic AMP and abolished by carbachol[1].

In Vivo
In anesthetized dogs, intravenous (i.v.) injection of NSP-805 produces dose-dependent increases in left ventricular VVdp/dtmax and decreases in aortic blood pressure (ABP) with relatively small increases in heart rate (HR). The ED₅₀ value for LVdP/dtmax of NSP-805 is 12 μg/kg. When the drugs is administered intraduodenally to anesthetized dogs, the ED₅₀ value for LVdP/dtmax of NSP-805, is approximately 10 μg/kg. In the propranolol-induced heart failure model, NSP-805 completely improves the hemodynamic state of heart failure to normal levels[1]. NSP-805(100 μg/kg) reduces systemic blood pressure significantly, but the increase of chorio-retinal blood flow is less than that at the low dose of NSP-805 (40 μg/kg) in rabbit eyes[2].

REFERENCES


Caution: Product has not been fully validated for medical applications. For research use only.
Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA