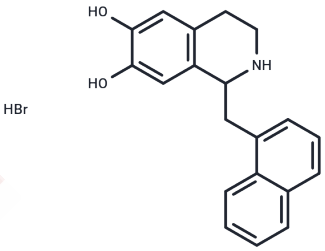
Data Sheet (Cat.No.T13376)

YS-49

Chemical Properties



CAS No. : 132836-42-1

Formula: C20H20BrNO2

Molecular Weight: 386.28

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	YS-49 is an activator of PI3K/Akt (a downstream target of RhoA).
Targets(IC50)	RAAS,Akt,Adrenergic Receptor,PI3K
In vitro	In RAVSMC and RAW 264.7 cells, YS-49 (1-100?μM; 18 hours;) concentration-dependently inhibits the accumulation of nitrite in both RAVSMC and RAW 264.7 exposed to lipopolysaccharide (LPS) plus INF-γ, with IC50 values of 22 μM and 30?μM, respectively[2].At the transcriptional level, YS-49 (10-100?μM; 18 hours; RAVSMC and RAW 264.7 cells) suppresses iNOS gene expression induced by LPS and/or cytokines in RAVSMC and RAW 264.7 cells [2].
In vivo	In male Sprague Dawley rats,YS-49 (5mg/kg; intraperitoneal injection; 8 hours) treatment significantly reduces serum NOx levels in LPS-treated rats, the NOx levels reduce from 86 μM to 34 μM[2].

Solubility Information

Solubility	H2O: 10 mg/mL (25.89 mM),Sonication and heating to 60°C are recommended. DMSO: 250 mg/mL (647.2 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (10.36 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5888 mL	12.944 mL	25.888 mL
5 mM	0.5178 mL	2.5888 mL	5.1776 mL
10 mM	0.2589 mL	1.2944 mL	2.5888 mL
50 mM	0.0518 mL	0.2589 mL	0.5178 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

Sun JJ, Kim HJ, Seo HG, et al. YS49,1-(alpha-naphtylmethyl)-6,7-dihydroxy-1,2,3,4-tetrahydroisoquinoline, regulates angiotensin II-stimulated ROS production, JNK phosphorylation and vascular smooth muscle cell proliferation via the induction of heme oxygenase-1. Life Sci. 2008;82(11-12):600-7.
Chen J, Geng X, Li B, et al.Homosalate and ERK Knockdown in the Modulation of Aurelia coerulea Metamorphosis by Regulating the PI3K Pathway and ERK Pathway.Current Issues in Molecular Biology.2024, 46(10): 11630-11645.
Kang YJ, et al. Prevention of the expression of inducible nitric oxide synthase by a novel positive inotropic agent, YS 49, in rat vascular smooth muscle and RAW 264.7 macrophages. Br J Pharmacol. 1999 Sep;128(2):357-64.
Hsu YH, et al. RhoA-mediated inhibition of vascular endothelial cell mobility: positive feedback through reduced cytosolic p21 and p27. J Cell Physiol. 2014 Oct;229(10):1455-65.