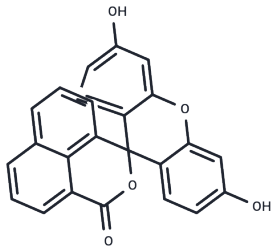
Data Sheet (Cat.No.T13865)

TargetMol

Resorcinolnaphthalein

Chemical Properties



CAS No. : 41307-63-5

Formula: C24H14O5

Molecular Weight: 382.36

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	Resorcinolnaphthalein is a specific enhancer of angiotensin-converting enzyme 2 (ACE2) (EC50 value of 19.5 μM).
Targets(IC50)	RAAS,Angiotensin-converting Enzyme (ACE)
In vitro	ACE2 activity in a dose-dependent manner enhanced by Resorcinolnaphthalein (100 μM) and XNT (EC50 values of 19.5 μM and 20.1 μM, respectively).ACE2 is an effective enzyme in attenuating fibrosis and structural remodeling. Enhancement of ACE2 activity has beneficial effects on the cardiovascular system and protects against hypertension induced pathophysiology.
In vivo	resorcinolnaphthalein enhanced ACE2 activity in a dose-dependent manner. Acute in vivo administration of the xanthenone resulted in a dose-dependent transient and robust decrease in blood pressure (at 10 mg/kg, spontaneously hypertensive rats decreased 71+/-9 mm Hg and Wistar-Kyoto rats decreased 21+/-8 mm Hg; P<0.05). Chronic infusion of the xanthenone (120 microg/day) resulted in a modest decrease in the spontaneously hypertensive rat blood pressure (17 mm Hg; 2-way ANOVA; P<0.05), whereas it had no effect in Wistar-Kyoto rats. Strikingly, the decrease in blood pressure was also associated with improvements in cardiac function and reversal of myocardial, perivascular, and renal fibrosis in the spontaneously hypertensive rats[1].

Solubility Information

Solubility	DMSO: 120 mg/mL (313.84 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (8.63 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	2.6153 mL	13.0767 mL	26.1534 mL
5 mM	0.5231 mL	2.6153 mL	5.2307 mL
10 mM	0.2615 mL	1.3077 mL	2.6153 mL
50 mM	0.0523 mL	0.2615 mL	0.5231 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

Hernández Prada JA, et al.Structure-based identification of small-molecule angiotensin-converting enzyme 2 activators as novel antihypertensive agents.Hypertension. 2008 May;51(5):1312-7.