3-Hydroxycoumarin

Cat. No.: HY-127170

CAS No.: 939-19-5

Molecular Formula: $C_9H_6O_3$

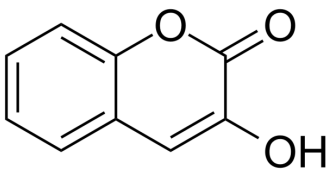
Molecular Weight: 162.14

Target: Lipoxygenase

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (616.75 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	6.1675 mL	30.8375 mL	61.6751 mL
	5 mM	1.2335 mL	6.1675 mL	12.3350 mL
	10 mM	0.6168 mL	3.0838 mL	6.1675 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (15.42 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (15.42 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (15.42 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

3-hydroxycoumarin is a potent and redox inhibitor of human 15-LOX-1. 3-hydroxycoumarin is recently demonstrated to protect sea urchin reproductive cells against ultraviolet B damage[1][2].

REFERENCES

[1]. Born SL, et al. Synthesis and reactivity of coumarin 3,4-epoxide. Drug Metab Dispos. 1997;25(11):1318-1324.

[2]. Alavi SJ, Sadeghian H, Seyedi SM, Salimi A, Eshghi H. A novel class of human 15-LOX-1 inhibitors based on 3-hydroxycoumarin. Chem Biol Drug Des. 2018;91(6):1125-1132.

[3]. Asthana S, et al. Structure-Activity Relationship Study of Hydroxycoumarins and Mushroom Tyrosinase. J Agric Food Chem. 2015;63(32):7236-7244.

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