Sodium gualenate

Cat. No.: HY-B2191

CAS No.: 6223-35-4

Molecular Formula: $C_{15}H_{17}NaO_3S$

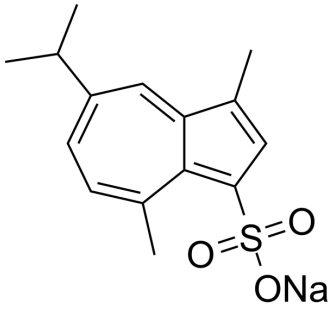
Molecular Weight: 300.35

Target: Others

Pathway: Others

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (83.24 mM; Need ultrasonic)

H_2O : 6.25 mg/mL (20.81 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	3.3294 mL	16.6472 mL	33.2945 mL
5 mM	0.6659 mL	3.3294 mL	6.6589 mL
10 mM	0.3329 mL	1.6647 mL	3.3294 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 (8.32 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (8.32 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Sodium gualenate (Guaiazulenesulfonate sodium) is a hydrophilic derivative of guaiazulene with excellent anti-inflammatory and wound-healing effects mainly used for the treatment of duodenal ulcer, gastric ulcer and gastritis.

In Vitro

Sodium gualenate is an unstable compound, which is gradually decomposed in the solid state at room temperature. When heated, Sodium gualenate decomposes almost completely within 1 week. It was found that a kneaded mixture of Sodium gualenate and cornstarch (weight ratio; 1:250) for tableting with water is stable. So, during production, Sodium gualenate could be stabilized using water[1]. Sodium gualenate slightly inhibits the histamine release from rat peritoneal mast cells and strongly inhibits the leukocyte emigration induced by fMLP[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo	Sodium gualenate has been frequently used for the treatment of human gastritis. Cytoprotection is defined as the main mechanism of Sodium gualenate to protect the mucosa of the stomach and the antipeptic actions in vivo have also been shown[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Nakamichi K, et al. Stabilization of sodium guaiazulene sulfonate in granules for tableting prepared using a twin-screw extruder. Eur J Pharm Biopharm. 2003 Nov;56(3):347-54.

[2]. Cao T, et al. Synthesis and Biological Evaluation of 3, 8-dimethyl-5-isopropylazulene Derivatives as Anti-gastric Ulcer Agent. Chem Biol Drug Des. 2016 Aug;88(2):264-71.

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