Salicylamide

Cat. No.: HY-B0811

CAS No.: 65-45-2

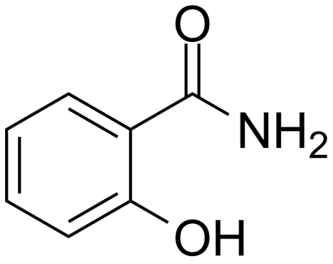
Molecular Formula: $C_7H_7NO_2$

Molecular Weight: 137.14

Target: Others

Pathway: Others

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (729.18 mM; Need ultrasonic)
H_2O : 0.1 mg/mL (0.73 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	7.2918 mL	36.4591 mL	72.9182 mL
5 mM	1.4584 mL	7.2918 mL	14.5836 mL
10 mM	0.7292 mL	3.6459 mL	7.2918 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 (18.23 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (18.23 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (18.23 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Salicylamide is an inhibitor of microsomal UDP-glucuronosyltransferase. Salicylamide is an analgesic and anti-pyretic agent.

In Vitro

Treatment with salicylamides leads to the bacterial growth inhibition which correlates with the level of inhibition of sulfate reduction[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Salicylamide administration decreases the levels of radiosulfate in maternal serum and placenta, and impaires the incorporation of radiosulfate into fetal skeletal GAGs. Salicylamide administration results in a decrease in the calcium

content of fetal limb bones, but has no significant effect on maternal serum calcium[2]. Salicylamide administration decreases radiosulfate uptake by maternal serum and liver, fetus and placenta--effects being dose-dependent. Differences in radiosulfate uptake by the fetus and placenta over time, induced by salicylamide, are also significant independently of maternal serum levels of radiosulfate[3].

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PROTOCOL

Animal Administration [2]

Rats: Pregnant rats are fed 25% casein diet with or without 2% salicylamide from day 6 to day 17 or day 19 of gestation. The dams are killed on day 17 or day 19 of gestation, 24 hours following an intramuscular injection of sodium 35S-sulfate[2].

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

CUSTOMER VALIDATION

- Xenobiotica. 2022 Oct 12;1-47.

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REFERENCES

[1]. Kushkevych I, et al. Activity of selected salicylamides against intestinal sulfate-reducing bacteria. Neuro Endocrinol Lett. 2015;36 Suppl 1:106-13.

[2]. Halstead PK, et al. Effect of salicylamide on skeletal glycosaminoglycan sulfation and calcification in fetal rat limbs. Drug Nutr Interact. 1981;1(1):75-86.

[3]. Knight E, et al. Effect of salicylamide on the placental transfer and fetal tissue distribution of sodium-35S-sulfate in the rat. J Nutr. 1978 Feb;108(2):216-25.

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