Benzonatate

Cat. No.: HY-B1551

CAS No.: 104-31-4

Molecular Formula: $C_{30}H_{53}NO_{11}$

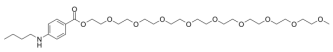
Molecular Weight: 603.74

Target: Sodium Channel

Pathway: Membrane Transporter/Ion Channel

Storage:

Pure form	-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 (165.63 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.6563 mL	8.2817 mL	16.5634 mL
	5 mM	0.3313 mL	1.6563 mL	3.3127 mL
	10 mM	0.1656 mL	0.8282 mL	1.6563 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 (4.14 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.14 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.14 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Benzonatate (Benzononatine) is a peripheral oral antitussive that dampens the activity of cough stretch receptors. Benzonatate has sodium channel-blocking properties and local anesthetic effects on the respiratory stretch receptors due to a tetracaine-like metabolite[1][2].

REFERENCES

[1]. Thimann DA, et al. Benzonatate toxicity in a teenager resulting in coma, seizures, and severe metabolic acidosis. J Pediatr Pharmacol Ther. 2012;17(3):270-273.

[2]. Teo S, et al. The Antitussive Benzonatate Is Not Tumorigenic in Rodent Carcinogenicity Studies. Toxicol Pathol. 2018;46(6):683-692.

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