TargetMol

Carbetapentane citrate

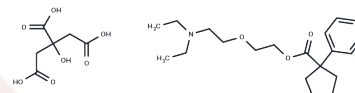### Chemical Properties

CAS No. :   23142-01-0

Formula：   C20H31NO3·C6H8O7

Molecular Weight： 525.59

Appearance：   no data available

Storage：   Powder: -20℃ for 3 years | In solvent: -80℃ for 1 year

Biological Description

Description	Carbetapentane citrate (Pentoxyverine citrate) , an antitussive (cough suppressant), is frequently used for a cough related to illnesses like the common cold.
Targets(IC50)	AChR
In vivo	Pentoxyverine is an agonist of the σ receptor (σ1 subtype) and an antagonist of the muscarinic acetylcholine receptor (M1 subtype). It possesses anticholinergic properties, theoretically facilitating alveolar relaxation and reducing mucus production. Pentoxyverine (Carbetapentane) Citrate exhibits local anesthetic effects and atropine-like qualities, providing significant suppression of acute cough associated with common upper respiratory tract infections. Furthermore, Pentoxyverine inhibits the cough reflex within the central nervous system, though its precise mechanism of action remains unclear.

Solubility Information

Solubility	DMSO: 65 mg/mL (123.67 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9026 mL	9.5131 mL	19.0262 mL
5 mM	0.3805 mL	1.9026 mL	3.8052 mL
10 mM	0.1903 mL	0.9513 mL	1.9026 mL
50 mM	0.0381 mL	0.1903 mL	0.3805 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.

Reference

Dönmez OA, et al. Talanta, 2011, 83(5), 1601-1605.
Brown C, et al. Br J Pharmacol, 2004, 141(2), 233-240.