

Fesoterodine fumarate

Chemical Properties

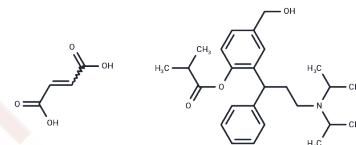
CAS No. : 286930-03-8

Formula: C₂₆H₃₇N₃O₃·C₄H₄O₄

Molecular Weight: 527.65

Appearance: no data available

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



Biological Description

Description	Fesoterodine fumarate (Toviaz) is the fumarate salt form of fesoterodine, a competitive muscarinic receptor antagonist with muscle relaxant and urinary antispasmodic properties. Fesoterodine is rapidly hydrolyzed in vivo into its active metabolite 5-hydroxymethyl tolterodine, which binds and inhibits muscarinic receptors on the bladder detrusor muscle, thereby preventing bladder contractions or spasms caused by acetylcholine.
Targets(IC50)	AChR
In vitro	Fesoterodine is rapidly and extensively converted to 5-HMT, such that the pharmacologic activity appears to be primarily attributable to 5-HMT. [1] Fesoterodine is a competitive antagonist of cholinergic agonist-stimulated responses in human M1-M5 cell lines and has a similar potency and selectivity profile to the radioligand-binding studies. Fesoterodine causes a rightward shift of the concentration-response curve for carbachol with no depression of the maximum in rat bladder strips, and concentration-dependently reduces contractions induced by electrical field stimulation (EFS). [2] Fesoterodine is hydrolyzed by nonspecific esterases to 5-hydroxymethyl tolterodine (5-HMT), which is the active metabolite and is responsible for all its antimuscarinic activity. [3]

Solubility Information

Solubility	DMSO: 93 mg/mL (176.25 mM), Sonication is recommended. H ₂ O: 92 mg/mL (174.36 mM), Sonication is recommended. Ethanol: 93 mg/mL (176.25 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8952 mL	9.476 mL	18.952 mL
5 mM	0.379 mL	1.8952 mL	3.7904 mL
10 mM	0.1895 mL	0.9476 mL	1.8952 mL
50 mM	0.0379 mL	0.1895 mL	0.379 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

Malhotra B, et al. Curr Med Chem, 2009, 16(33), 4481-4489.

Ney P, et al. BJU Int, 2008, 101(8), 1036-1042.

Vella M, et al. Expert Opin Drug Saf, 2011, 10(5), 805-808.

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