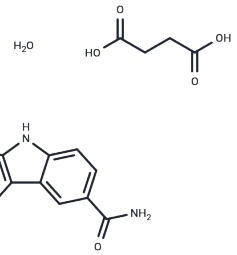
Data Sheet (Cat.No.T11326)

TargetMol

Frovatriptan succinate hydrate

Chemical Properties



CAS No. : 158930-17-7

Formula: C18H25N3O6

Molecular Weight: 379.41

Appearance: no data available

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

Biological Description

Description	Frovatriptan succinate hydrate (Frova) is effective in treating the full spectrum of migraine including the associated symptoms of nausea, vomiting, photophobia, and phonophobia. Frovatriptan succinate hydrate can also be used as in mini-prophylaxis in menstrual migraine. Frovatriptan succinate hydrate is a potent, high affinity, selective and orally active 5-HT1B, HT1D receptor agonist and a moderately potent 5-HT7 receptor agonist, with pKi values of 8.6, 8.4, and 6.7, respectively.
Targets(IC50)	5-HT Receptor
In vitro	Frovatriptan has a high affinity for 5-HT1B and 5-HT1D receptors and a moderate affinity for the 5-HT1A and 5-HT1F receptors subtypes. Frovatriptan has a moderate affinity for the 5-HT7 receptors, an action associated with coronary artery relaxation in the dog. Cerebral vasodilatation and neurogenic inflammation are considered to be prime movers in the pathogenesis of migraine. Activation of 5-HT1B reverses cerebral vasodilatation and activation of 5-HT1D prevents neurogenic inflammation[1].
In vivo	Frovatriptan is chiefly metabolized by CYP1A2 and is cleared by the kidney and liver making moderate failure of either organ not a limiting factor in treatment. Frovatriptan has a low risk of interactions with other drugs.Oral bioavailability of Frovatriptan is 22% -30% and is not affected by food.?Although the maximum concentration in the plasma is achieved in 2-3 hours, 60%-70% of this is achieved in 1 hour.?A steady state is achieved in 4-5 days.?Plasma protein binding is low at 15%.?The most unique feature is the relative terminal long half-life of about 26 hours[2].?

Solubility Information

Solubility	DMSO: 60 mg/mL (158.14 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6357 mL	13.1784 mL	26.3567 mL
5 mM	0.5271 mL	2.6357 mL	5.2713 mL
10 mM	0.2636 mL	1.3178 mL	2.6357 mL
50 mM	0.0527 mL	0.2636 mL	0.5271 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

Kelman L. Review of frovatriptan in the treatment of migraine. Neuropsychiatr Dis Treat. 2008 Feb;4(1):49-54.
Comer MB. Et al. Pharmacology of the selective 5-HT(1B/1D) agonist frovatriptan. Headache. 2002 Apr;42 Suppl 2: S47-53.