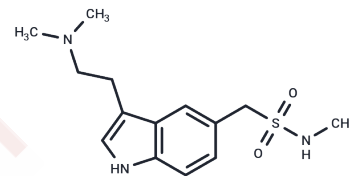


Sumatriptan

Chemical Properties

CAS No. :	103628-46-2
Formula:	C ₁₄ H ₂₁ N ₃ O ₂ S
Molecular Weight:	295.4
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Sumatriptan (GR 43175 free base) is an orally active and potent 5-hydroxytryptamine 1 (5-HT ₁) receptor agonist that crosses the blood-brain barrier and has anti-inflammatory activity with high affinity for 5-HT _{1D} , 5-HT _{1B} , and 5-HT _{1F} receptors for use in acute migraines and acute myocardial infarction.
Targets(IC ₅₀)	5-HT Receptor

Solubility Information

Solubility	Ethanol: 40 mg/mL (135.41 mM),Sonication is recommended. DMSO: 250 mg/mL (846.31 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (11.17 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3852 mL	16.9262 mL	33.8524 mL
5 mM	0.677 mL	3.3852 mL	6.7705 mL
10 mM	0.3385 mL	1.6926 mL	3.3852 mL
50 mM	0.0677 mL	0.3385 mL	0.677 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

- S J Peroutka, et al. Sumatriptan (GR 43175) interacts selectively with 5-HT_{1B} and 5-HT_{1D} binding sites. *Eur J Pharmacol.* 1989 Apr 12;163(1):133-6.
- K L Dechant, et al. Sumatriptan. A review of its pharmacodynamic and pharmacokinetic properties, and therapeutic efficacy in the acute treatment of migraine and cluster headache. *Drugs.* 1992 May;43(5):776-98.
- Razzaque Z, et al. Vasoconstriction in human isolated middle meningeal arteries: determining the contribution of 5-HT_{1B}- and 5-HT_{1F}-receptor activation. *Br J Clin Pharmacol.* 1999 Jan;47(1):75-82.
- Bates EA, et al. Sumatriptan alleviates nitroglycerin-induced mechanical and thermal allodynia in mice. *Cephalalgia.* 2010 Feb;30(2):170-8.

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