

Product Data Sheet

Product Name: Frovatriptan (succinate hydrate)

Cat. No.: GC45458

Chemical Properties

Cas. No. 158930-17-7

SMILES O=C(N)C1=CC2=C(NC3=C2C[C@H](NC)CC3)C=C1.OC(CCC(O)=O)=O.O

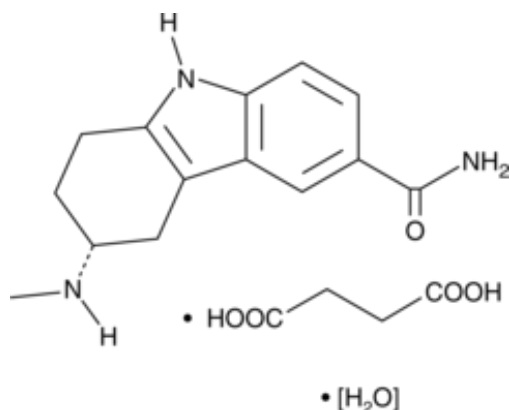
Formula C14H17N3O.C4H6O4[H2O] M.Wt 379.4

Solubility DMF: 3mg/mL, DMSO: 10mg/mL, PBS (pH 7.2): 5mg/mL
Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Frovatriptan is an agonist of the serotonin (5-HT) receptor subtypes 5-HT1B and 5-HT1D ($K_{is} = 2.51$ and 3.98 nM, respectively).^{1,2} It is selective for 5-HT1B and 5-HT1D over 5-HT1A, 5-HT1E, 5-HT1F,

Caution: Product has not been fully validated for medical applications. For research use only.

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5-HT_{2A}, 5-HT_{2C}, 5-HT₃, and 5-HT₇ receptors, as well as dopamine D₁, D₂, and D₃, histamine H₁, and α ₁-adrenergic receptors ($K_{is} = >50$ nM). Frovatriptan induces contractions in human basilar arteries isolated post-mortem, coronary arteries from transplant recipient hearts, and coronary arteries from donor hearts unsuitable for transplantation (EC_{50} s = 13.8, 41.69, and 15.49 nM, respectively).³ It increases carotid vascular resistance in closed-chest and open-chest anesthetized dogs (ED_{50} s = 6 and 1 nmol/kg, i.v., respectively).⁴ Formulations containing frovatriptan have been used in the treatment of migraines.

References

1. Brown, A.M., Parsons, A.A., Raval, P., et al. SB 209509 (VML 251), a potent constrictor of rabbit basilar artery with high affinity and selectivity for human 5-HT_{1D} receptors. Br. J. Pharmacol. 119(Suppl 1), 110P (1996).
2. Comer, M.B. Pharmacology of the selective 5-HT_{1B/1D} agonist frovatriptan. Headache 42(Suppl 2), S47-S53 (2002).
3. Parsons, A.A., Raval, P., Smith, S., et al. Effects of the novel high-affinity 5-HT_{1B/1D}-receptor ligand frovatriptan in human isolated basilar and coronary arteries. J. Cardiovasc. Pharmacol. 32(2), 220-224 (1998).
4. Parsons, A.A., Parker, S.G., Raval, P., et al. Comparison of the cardiovascular effects of the novel 5-HT_{1B/1D} receptor agonist, SB 209509 (VML251), and sumatriptan in dogs. J. Cardiovasc. Pharmacol. 30(1), 136-141 (1997).

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