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**Product Data Sheet**

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Product Name: Mosapride

Cat. No.: GC13428

**Chemical Properties**

Cas. No. 112885-41-3

Chemical Name 4-amino-5-chloro-2-ethoxy-N-[[4-[(4-fluorophenyl)methyl]morpholin-2-yl]methyl]benzamide

SMILES CCOC1=CC(=C(C=C1C(=O)NCC2CN(CCO2)CC3=CC=C(C=C3)F)Cl)NFormula  $C_{21}H_{25}ClFN_3O_3$  M.Wt 421.89

Solubility DMSO : 84mg/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**

Mosapride is a gastroprokinetic agent that acts as a selective 5HT4 agonist. Target: 5HT4

Mosapride is a gastroprokinetic agent that acts as a selective 5HT4 agonist. The major active metabolite of mosapride, known as M1, additionally acts as a 5HT3 antagonist, which accelerates gastric emptying throughout the whole of the gastrointestinal tract in humans, and is used for the treatment of gastritis, gastro-oesophageal reflux disease, functional dyspepsia and irritable bowel syndrome. It is recommended to be taken on an empty stomach (i.e. at least one hour before food or two hours after food). In addition to its prokinetic properties, mosapride also exerts anti-inflammatory effects on the gastrointestinal tract which may contribute to some of its therapeutic effects. Mosapride also promotes neurogenesis in the gastrointestinal tract which may prove useful in certain bowel disorders. The neurogenesis is due to mosapride's effect on the 5-HT4 receptor where it acts as an agonist. Its common side effects include dry mouth, abdominal pain, dizziness, headache, insomnia, malaise, nausea, diarrhoea and sometimes constipation. Unlike some other prokinetic agents, mosapride has little effect

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

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on potassium channels, no effect on hERG transfected cells, and no effect on cardiovascular function that could be detected in tests on humans. Due to the pharmacokinetics of mosapride, it would take 1,000 - 3,000 times the therapeutic dose to elicit cardiovascular effects.

### References:

- [1]. Tack J, et al. Systematic review: cardiovascular safety profile of 5-HT(4) agonists developed for gastrointestinal disorders. *Aliment Pharmacol Ther.* 2012 Apr;35(7):745-67.
- [2]. Curran MP, et al. Mosapride in gastrointestinal disorders. *Drugs.* 2008;68(7):981-91.
- [3]. Odaka T, et al. Serotonin 5- HT4 receptor agonist (mosapride citrate). *Nihon Rinsho.* 2006 Aug;64(8):1491-4.

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