# PRODUCT INFORMATION

## Cisapride

*Item No. 21657*

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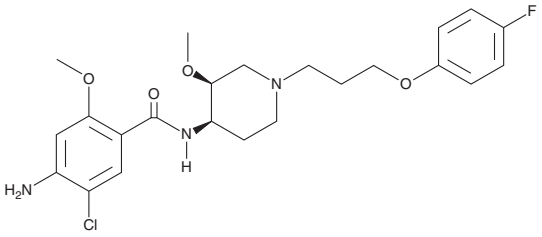
| **CAS Registry No.:** | 81098-60-4 |
| **Formal Name:** | *rel*-4-amino-5-chloro-N-[1-[(3R,4S)-3-(4-fluorophenoxy) propyl]-3-methoxy-4-piperidinyl]-2-methoxy-benzamide |
| **MF:** | $C_{23}H_{29}ClFN_3O_4$ |
| **FW:** | 466.0 |
| **Purity:** | ≥98% |
| **UV/Vis.:** | $\lambda_{max}$: 214, 276, 308 nm |
| **Supplied as:** | A crystalline solid |
| **Storage:** | -20°C |
| **Stability:** | ≥4 years |




*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Laboratory Procedures

Cisapride is supplied as a crystalline solid. A stock solution may be made by dissolving the cisapride in the solvent of choice, which should be purged with an inert gas. Cisapride is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of cisapride in these solvents is approximately 30 mg/ml. Cisapride is slightly soluble in ethanol.

Cisapride is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cisapride should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Cisapride has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Cisapride is an agonist of serotonin (5-HT) receptor subtype 5-$HT_4$ ($IC_{50}$ = 0.483 µM in COS-7 cells expressing the human receptor).[1] It induces relaxation of precontracted isolated rat esophageal thoracic muscularis mucosae preparations ($EC_{50}$ = 102.33 nM). Cisapride (0.5 mg/kg) increases the rate of gastric emptying in rats. It is also a human ether-a-go-go related gene (hERG) channel blocker that binds to hERG channels with an $IC_{50}$ value of less than 1 µM in a fluorescence polarization assay. Formulations containing cisapride have previously been used in the treatment of nocturnal heartburn associated with gastroesophageal reflux disease.

### Reference


1. Park, J.S., Im, W., Choi, S., *et al.* Discovery and SAR of N-(1-((substituted piperidin-4-yl)methyl)-3-methoxypiperidin-4-yl)-2-methoxybenzamide derivatives: 5-Hydroxytryptamine receptor 4 agonist as a potent prokinetic agent. *Eur. J. Med. Chem.* **109**, 75-88 (2016).





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