Product Information

Cisapride
Item No. 21657

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_{3}O_{4}
FW: 466.0
Purity: ≥98%
UV/Vis.: \( \lambda_{\text{max}} \) 214, 276, 308 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 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. Cisapride is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of cisapride in these solvents is approximately 30 mg/ml. Cisapride is also 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 a selective agonist of the serotonin receptor (5-HT) subtype 5-HT_{4}, but it also exhibits weak inhibitory activity towards 5-HT_{3}.\(^1,2\) Cisapride has an IC_{50} value of 0.483 µM at 5-HT_{4}, as measured in a COS-7 receptor binding assay, while in an esophageal contraction assay it has a pEC_{50} value of 6.99.\(^3\) In vivo, cisapride is a gastroprokinetic agent, increasing contractility and motility within the gastrointestinal tract.\(^2\) Cisapride also induces heart arrhythmia, which is linked to its inhibition of the cardiac K^+ channel subunit K_{r}11.1, encoded by the human Ether-à-go-go-Related Gene (hERG), with an IC_{50} value of <1 µM.\(^3,4\)

References