

Product Data Sheet

Product Name: Metoclopramide (hydrochloride)

Cat. No.: GC44186

Chemical Properties

Cas. No. 7232-21-5

SMILES CIC1=CC(C(NCCN(CC)CC)=O)=C(OC)C=C1N.Cl

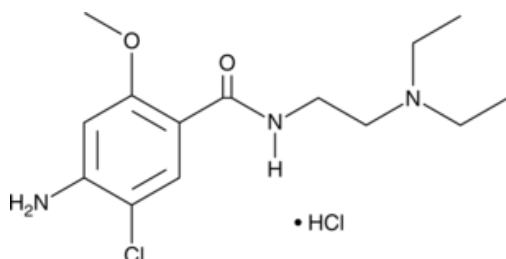
Formula C14H22ClN3O2 M.Wt 336.3

Solubility DMF: 20 mg/ml, DMSO: 20 mg/ml, Ethanol: 20 mg/ml, PBS (pH 7.2): 10 mg/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 sizes: ship with RT, or blue ice upon request.

Structure



Background

Metoclopramide is an orally bioavailable serotonin (5-HT) receptor 5-HT₃ antagonist with K_i and IC_{50} values of 995 and 308 nM, respectively, in rat cortical membranes. It is also a dopamine receptor 2 (D₂) antagonist (IC_{50} = 483 nM in rat brain synaptic membranes). Oral administration of metoclopramide inhibits emesis induced by cisplatin and apomorphine in ferrets and dogs with ED₅₀ values of 6.17 and 0.45 mg/kg, respectively. Metoclopramide reversibly inhibits human acetylcholinesterase (AChE) isolated from the caudate nucleus (K_i s = 9.3 and 82 μ M for competitive and non-competitive inhibition, respectively). Formulations containing metoclopramide have been used as anti-emetic and antipsychotic agents.

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

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