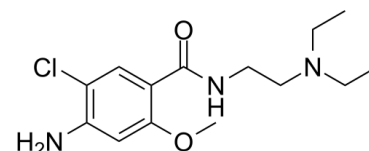


Data Sheet

Product Name:	Metoclopramide
Cat. No.:	CS-1064
CAS No.:	364-62-5
Molecular Formula:	C ₁₄ H ₂₂ ClN ₃ O ₂
Molecular Weight:	299.80
Target:	Dopamine Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Solubility:	DMSO : ≥ 41 mg/mL (136.76 mM)



BIOLOGICAL ACTIVITY:

Metoclopramide is a dopamine D₂ antagonist that is used as an antiemetic. IC₅₀ Value: Target: D₂ Receptor Metoclopramide is a dopamine receptor antagonist which has been used for treatment of a variety of gastrointestinal symptoms over the last thirty years. In various countries, metoclopramide is the antiemetic drug of choice in pregnant women. Findings provide reassurance regarding the safety of metoclopramide for the fetus when the drug is given to women to relieve nausea and vomiting during pregnancy. Evidence also supports its use for gastroparesis (poor stomach emptying) and gastroesophageal reflux disease. It appears to bind to dopamine D₂ receptors where it is a receptor antagonist, and is also a mixed 5-HT₃ receptor antagonist/ 5-HT₄ receptor agonist.

References:

- [1]. Navari RM, Nagy CK, Gray SE. The use of olanzapine versus metoclopramide for the treatment of breakthrough chemotherapy-induced nausea and vomiting in patients receiving highly emetogenic chemotherapy. Support Care Cancer. 2013 Jan 12.
- [2]. Gutiérrez-Hermosillo H, Díaz de León-González E, Beltrán Santiago D et al. Metoclopramide as a risk factor for postprandial hyperglycemia in type 2 diabetes. Nutr Hosp. 2012 Jul-Aug;27(4):1267-71.
- [3]. Ilan Matok, Sc.Pharm., Rafael Gorodischer, et al. The Safety of Metoclopramide Use in the First Trimester of Pregnancy. N Engl J Med 2009; 360:2528-2535.
- [4]. DN Bateman, C Kahn, K Mashiter, DS Davies. Pharmacokinetic and concentration-effect studies with intravenous metoclopramide. British Journal of Clinical Pharmacology.1978,6(5): 401-407

CAIndexNames:

Benzamide, 4-amino-5-chloro-N-[2-(diethylamino)ethyl]-2-methoxy-

SMILES:

O=C(NCCN(CC)CC)C1=CC(Cl)=C(N)C=C1OC

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

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