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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

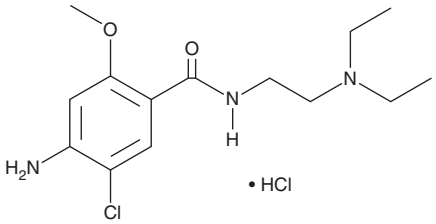
linkedin.com/company/szaboscandic

PRODUCT INFORMATION

Metoclopramide (hydrochloride)

Item No. 23360

CAS Registry No.: 7232-21-5
Formal Name: 4-amino-5-chloro-N-[2-(diethylamino)ethyl]-2-methoxy-benzamide, monohydrochloride
Synonym: NSC 354467
MF: $C_{14}H_{22}ClN_3O_2 \bullet HCl$
FW: 336.3
Purity: ≥98%
UV/Vis.: λ_{max}: 213, 233, 278, 312 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

Metoclopramide (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the metoclopramide (hydrochloride) in the solvent of choice. Metoclopramide (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of metoclopramide (hydrochloride) in these solvents is approximately 20 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of metoclopramide (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of metoclopramide (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Metoclopramide is an orally bioavailable serotonin (5-HT) receptor 5-HT_3 antagonist with K_i and IC_{50} values of 995 and 308 nM, respectively, in rat cortical membranes.[1,2] It is also a dopamine D_2 receptor antagonist (IC_{50} = 483 nM in rat brain synaptic membranes).[2] Oral administration of metoclopramide inhibits emesis induced by cisplatin (Item No. 13119) and apomorphine (Item No. 16094) in ferrets and dogs with ED_{50} values of 6.17 and 0.45 mg/kg, respectively.[1,2] Metoclopramide reversibly inhibits human acetylcholinesterase (AChE) isolated from the caudate nucleus (K_is = 9.3 and 82 µM for competitive and non-competitive inhibition, respectively).[3] Formulations containing metoclopramide have been used as anti-emetic and antipsychotic agents.[4,5]

References

1. Youssefyeh, R.D., Campbell, H.F., Klein, S., *et al. J. Med. Chem.* **35(5)**, 895-903 (1992).
2. Hirokawa, Y., Harada, H., Yoshikawa, T., *et al. Chem. Pharm. Bull. (Tokyo)* **50(7)**, 941-959 (2002).
3. Chemnitius, J.M., Haselmeyer, K.H., Gonska, B.D., *et al. Pharmacol. Res.* **34(1-2)**, 65-72 (1996).
4. Harrington, R.A., Hamilton, C.W., Brogden, R.N., *et al. Drugs* **25(5)**, 451-494 (1983).
5. Altar, C.A., Boyar, W.C., Wasley, A., *et al. Naunyn Schmiedebergs Arch. Pharmacol.* **338(2)**, 162-168 (1988).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM