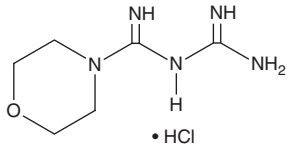
PRODUCT INFORMATION

Moroxydine (hydrochloride)

Item No. 21647

CAS Registry No.: 3160-91-6
Formal Name: N-(aminoiminomethyl)-4-morpholinecarboximidamide, monohydrochloride
Synonym: ABOB
MF: $C_6H_{13}N_5O \bullet HCl$
FW: 207.7
Purity: ≥95%
UV/Vis.: λ_{max}: 241 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

Moroxydine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the moroxydine (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Moroxydine (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of moroxydine (hydrochloride) in these solvents is approximately 0.33, 20, and 10 mg/ml, respectively.

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 moroxydine (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of moroxydine (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

Moroxydine is a heterocyclic biguanidine compound with antiviral activity. In grass carp reovirus-infected CIK cells, virus-related Bcl-2- and caspase-mediated apoptosis is reduced by 50% following treatment with 6.3 µg/ml of moroxydine for 96 hours.[1] Moroxydine targets DNA and RNA viruses including measles, herpes simplex, varicella zoster, and hepatitis C, and formulations containing moroxydine are used to treat the symptoms of influenza virus strain A infection.[1-3] Moroxydine is considered effective and generally safe in veterinary applications. In gibel carp housed at 25°C, the absorption and elimination half-lives are 2.02 and 4.22 hours, respectively, following oral administration of a 10 mg/kg dose of moroxydine.[4]

References

1. Yu, X.-B., Chen, X.-H., Ling, F., *et al.* Moroxydine hydrochloride inhibits grass carp reovirus replication and suppresses apoptosis in *Ctenopharyngodon idella* kidney cells. *Antiviral Res.* **131**, 156-165 (2016).
2. Hopkins, E.J., Pye, A.M., Solomon, M., *et al.* Controlled trial of "virugon" in treatment of measles. *Br. Med. J.* **2(5262)**, 1263-1264 (1961).
3. Brown, A.G., Renton, G.H., and Griffiths, P. Comparative study of "Virugon" and penicillin in measles. *Br. Med. J.* **1(5275)**, 374-375 (1962).
4. Liu, W., Xu, J., Zhou, Y., *et al.* Pharmacokinetics and tissue residues of moroxydine hydrochloride in gibel carp, *Carassius gibelio* after oral administration. *J. Vet. Pharmacol. Ther.* **39(4)**, 398-404 (2016).

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