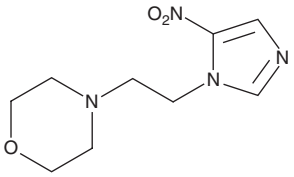
PRODUCT INFORMATION

Nimorazole

Item No. 29153

CAS Registry No.: 6506-37-2
Formal Name: 4-[2-(5-nitro-1H-imidazol-1-yl) ethyl]-morpholine
Synonyms: Acterol, Naxofem, Naxogin, Nitrimidazine, NSC 107524
MF: $C_9H_{14}N_4O_3$
FW: 226.2
Purity: ≥95%
Supplied as: A 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

Nimorazole is supplied as a solid. A stock solution may be made by dissolving the nimorazole in the solvent of choice, which should be purged with an inert gas. Nimorazole is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of nimorazole in ethanol is approximately 2 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Nimorazole is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, nimorazole should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Nimorazole has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Nimorazole is 5-nitroimidazole with antimicrobial and radiosensitizing activities.[1-3] It is active against *T. vaginalis* in a Coulter counter antimicrobial assay (EC_{50} = 2.55 fmol/cell) and *G. intestinalis* (IC_{50} = 0.393 µM).[1,2] Nimorazole reduces the number of vaginal trichomonads in a mouse model of *T. vaginalis* intravaginal infection (ED_{50} = 5.62 mg/kg).[4] Under hypoxic conditions, nimorazole enhances radiation-induced SCC-7 tumor cell death *in vitro* and *in vivo*.[3]

References

1. Brotherton, J. Biological assay of potential trichomonacides in vitro using a counter apparatus. *Arzneimittelforschung* **28(10),** 1665-1672 (1978).
2. Boreham, P.F., Phillips, R.E., and Shepherd, R.W. A comparison of the *in-vitro* activity of some 5-nitroimidazoles and other compounds against Giardia intestinalis. *J. Antimicrob. Chemother.* **16(5),** 589-595 (1985).
3. Sugie, C., Shibamoto, Y., Ito, M., *et al.* Reevaluation of the radiosensitizing effects of sanazole and nimorazole *in vitro* and *in vivo*. *J. Radiat. Res.* **46(4),** 453-459 (2005).
4. Meingassner, J.G. Comparative studies on the trichomonacidal activity of 5-nitroimidazole-derivatives in mice infected s.c. or intravaginally with *T. vaginalis*. *Experientia* **33(9),** 1160-1161 (1977).

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