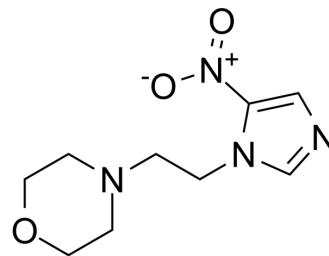


## Nimorazole

<b>Cat. No.:</b>	HY-16349		
<b>CAS No.:</b>	6506-37-2		
<b>Molecular Formula:</b>	C <sub>9</sub> H <sub>14</sub> N <sub>4</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	226.23		
<b>Target:</b>	Parasite; Antibiotic		
<b>Pathway:</b>	Anti-infection		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 33.33 mg/mL (147.33 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	4.4203 mL	22.1014 mL	44.2028 mL
	5 mM	0.8841 mL	4.4203 mL	8.8406 mL
	10 mM	0.4420 mL	2.2101 mL	4.4203 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.08 mg/mL (9.19 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.08 mg/mL (9.19 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.08 mg/mL (9.19 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Nimorazole (K-1900), a 2-nitroimidazole, is a hypoxic cell-radiation sensitizer. Nimorazole has anti-infective and anti-protozoal against trichomoniasis. Nimorazole has the potential for head and neck cancer<sup>[1][2]</sup>.

#### IC<sub>50</sub> & Target

Antiparasitic

#### In Vitro

Nimorazole significantly improves the effect of radiotherapeutic management of supraglottic and pharynx tumors and can be given without major side-effects<sup>[1][2]</sup>.

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Nimorazole is the only such agent to have shown a significant effect in a randomized controlled trial in head and neck cancer<sup>[3]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## CUSTOMER VALIDATION

- Eur J Pharm Biopharm. 2021 Feb 7;S0939-6411(21)00039-4.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

- [1]. Overgaard, J., et al., A randomized double-blind phase III study of nimorazole as a hypoxic radiosensitizer of primary radiotherapy in supraglottic larynx and pharynx carcinoma. Results of the Danish Head and Neck Cancer Study (DAHANCA) Protocol 5-85. Radiother Oncol, 1998. 46(2): p. 135-46.
  - [2]. Roy, R.B., S.M. Laird, and L. Heasman, Treatment of trichomoniasis in the female. A comparison of metronidazole and nimorazole. Br J Vener Dis, 1975. 51(4): p. 281-4.
  - [3]. Henk, J.M., K. Bishop, and S.F. Shepherd, Treatment of head and neck cancer with CHART and nimorazole: phase II study. Radiother Oncol, 2003. 66(1): p. 65-70.
  - [4]. Peter Wardman, et al. Nitroimidazoles as hypoxic cell radiosensitizers and hypoxia probes: misonidazole, myths and mistakes. Br J Radiol. 2019 Jan;92(1093):20170915.
  - [5]. Zohreh Fakhrieh Kashan, et al. Therapeutic effects of Iranian herbal extracts against Trichomonas vaginalis. Iran Biomed J. 2017 Sep;21(5):285-93.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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