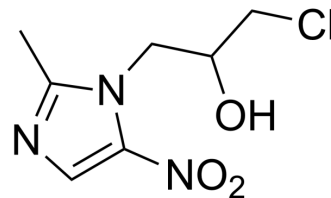


## Ornidazole

<b>Cat. No.:</b>	HY-B0508
<b>CAS No.:</b>	16773-42-5
<b>Molecular Formula:</b>	C <sub>7</sub> H <sub>10</sub> ClN <sub>3</sub> O <sub>3</sub>
<b>Molecular Weight:</b>	219.63
<b>Target:</b>	Bacterial; Parasite; Antibiotic
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 100 mg/mL (455.31 mM)  
 H<sub>2</sub>O : 10 mg/mL (45.53 mM; Need ultrasonic)  
 \* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	4.5531 mL	22.7656 mL	45.5311 mL
	5 mM	0.9106 mL	4.5531 mL	9.1062 mL
	10 mM	0.4553 mL	2.2766 mL	4.5531 mL

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

#### In Vivo

- Add each solvent one by one: PBS  
Solubility: 20 mg/mL (91.06 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (11.38 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (11.38 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (11.38 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Ornidazole(Ro 7-0207) is a 5-nitroimidazole derivative with antiprotozoal and antibacterial properties against anaerobic bacteria. Target: Antibacterial; Antiparasitic. Ornidazole is a drug that cures some protozoan infections. Ornidazole 1 g/day is effective for the prevention of recurrence of Crohn's disease after ileocolonic resection [1]. Ornidazole is converted to reduction products that interact with DNA to cause destruction of helical DNA structure and strand leading to a protein

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synthesis inhibition and cell death in susceptible organisms [2].

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## CUSTOMER VALIDATION

- Sci Rep. 2022 Aug 25;12(1):14502.
- Zebrafish. 2023 May 25.

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

## REFERENCES

- [1]. Rutgeerts, P., et al., Ornidazole for prophylaxis of postoperative Crohn's disease recurrence: a randomized, double-blind, placebo-controlled trial. *Gastroenterology*, 2005. 128(4): p. 856-61.
- [2]. Goldstein, E.J., V.L. Sutter, and S.M. Finegold, Comparative susceptibilities of anaerobic bacteria to metronidazole, ornidazole, and SC-28538. *Antimicrob Agents Chemother*, 1978. 14(4): p. 609-13.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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