

## Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

#### SZABO-SCANDIC HandelsgmbH

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# **PRODUCT** INFORMATION



Metronidazole

Item No. 9002409

CAS Registry No.:	443-48-1	
Formal Name:	2-methyl-5-nitro-1H-imidazole-1-ethanol	N
Synonyms:	MNZ, NSC 50364, NSC 69587	
MF:	C <sub>6</sub> H <sub>9</sub> N <sub>3</sub> O <sub>3</sub>	O-N
FW:	171.2	
Purity:	≥98%	L
UV/Vis.:	λ <sub>max</sub> : 229, 311 nm	
Supplied as:	A crystalline solid	 0H
Storage:	-20°C	OH
Stability:	≥2 years	
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.		

#### Laboratory Procedures

Metronidazole is supplied as a crystalline solid. A stock solution may be made by dissolving the metronidazole in the solvent of choice. Metronidazole is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of metronidazole in ethanol is approximately 5 mg/ml and approximately 15 mg/ml in DMSO and DMF.

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 metronidazole can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of metronidazole in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

#### Description

Metronidazole is an antibiotic that has activity against anaerobic bacteria and protozoa including T. vaginalis, E. histolytica, G. lamblia, C. difficile, and H. pylori.<sup>1</sup> It reduces the growth of E. coli in vitro (MIC = 128 mg/L under anaerobic conditions).<sup>2</sup> In vivo, metronidazole reduces viable counts of B. fragilis in a rabbit model of infection. Formulations containing metronidazole have been used in the treatment of various infections including H. pylori and C. difficile.

#### References

- 1. Samuelson, J. Why metronidazole is active against both bacteria and parasites. Antimicrob. Agents Chemother. 43(7), 1533-1541 (1999).
- 2. Rylander, M., Holm, S.E., Brorson, J.-E., et al. Activity of metronidazole on Bacteroides fragilis and/or Escherichia coli in vitro and in vivo. J. Antimicrob. Chemother. 7(3), 257-267 (1981).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFFTY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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