



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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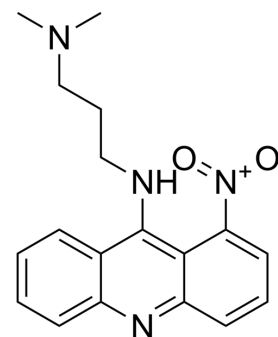
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## Nitracrine

Cat. No.:	HY-U00279		
CAS No.:	4533-39-5		
Molecular Formula:	C <sub>18</sub> H <sub>20</sub> N <sub>4</sub> O <sub>2</sub>		
Molecular Weight:	324.38		
Target:	DNA/RNA Synthesis		
Pathway:	Cell Cycle/DNA Damage		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (308.28 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	3.0828 mL	15.4140 mL	30.8280 mL
5 mM	0.6166 mL	3.0828 mL	6.1656 mL
10 mM	0.3083 mL	1.5414 mL	3.0828 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: ≥ 2.5 mg/mL (7.71 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (7.71 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Nitracrine inhibits RNA synthesis and covalently, reversibly binds to DNA but also forms covalent adducts with DNA in vivo. Nitracrine, a 1-nitroacridine derivative, is a potent hypoxia-selective agent in vitro and antitumor agent. Nitracrine has cytotoxicity towards most cells<sup>[1][2][3]</sup>.

#### In Vitro

Nitracrine (2 μM; 1 hour) causes death of 50% of human erythroleukemia K562 cells under illumination for 48 min. While it is 8.5 hours for Nitracrine on the dark<sup>[3]</sup>.  
Nitracrine has LD50s of 0.23 μM, 0.6 μM, 0.16 μM in P388 cell, NIH3T3 cell, and K562 cells under illumination after 1 hour of cells incubation, respectively<sup>[3]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.  
Cell Cytotoxicity Assay<sup>[3]</sup>

Cell Line:	Human erythroleukemia K562 cells
Concentration:	2 $\mu$ M
Incubation Time:	1 hour
Result:	Death of 50% of human erythroleukemia K562 cells were achieved under illumination for 48 min.

## REFERENCES

- [1]. Wilson WR, et al. Selective toxicity of nitracrine to hypoxic mammalian cells. *Br J Cancer*. 1984 Feb;49(2):215-23.
- [2]. Gniazdowski M, et al. Nitracrine and its congeners--an overview. *Gen Pharmacol*. 1995 May;26(3):473-81.
- [3]. Daghasanli NA, et al. Cytotoxicity of nitroheterocyclic compounds, quinifuryl and nitracrine, towards leukaemic and normal cells on the dark and under illumination with visible light. *J Photochem Photobiol B*. 2004 Jul 19;75(1-2):27-32.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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