



# 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

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## DMPO

Spin trapping reagent  
Catalog No. SIH-324



Discovery through partnership | Excellence through quality

### Overview

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#### Product Name

DMPO

#### Description

Spin trapping reagent

#### Purity

>98%

#### CAS No.

3317-61-1

#### Molecular Formula

CHINO

#### Molecular Weight

113.16, 13.16

### Properties

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#### Storage Temperature

-20°C

#### Shipping Temperature

Shipped Ambient

#### Product Type

Agent

#### Solubility

Soluble to 100 mM in ethanol and to 100 mM in DMSO

#### Source

Synthetic

#### Appearance

Colorless Solid

#### SMILES

CC1(CCC=[N+]1[O-])C

#### InChI

InChI=1S/C6H11NO/c1-6(2)4-3-5-7(6)8/h5H,3-4H2,1-2H3

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**InChIKey**

VCUVETGKTLCLC-UHFFFAOYSA-N

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**Safety Phrases**

Classification: Harmful. May be harmful if inhaled, swallowed or absorbed through skin.

Safety Phrases:

S22 - Do not breathe dust

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection

S24/25- Avoid contact with skin and eyes

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**Cite This Product**

DMPO (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SIH-324)

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**Biological Description**

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**Alternative Names**

2,2-Dimethyl-3,4-dihydro-2H-pyrrole 1-oxide, 5,5-Dimethyl-1-Pyrroline-N-Oxide, 3,4-dihydro-2,3-dimethyl-2H-pyrrole 1-oxide

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**Research Areas**

Cancer, Oxidative Stress

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**PubChem ID**

1774

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**Scientific Background**

The formation of free radicals and other highly reactive oxygen species has been implicated in the pathogenesis of many disease states (1). The ability to identify these species is crucial, and spin trapping has accomplished this goal. DMPO (5,5-dimethyl-1-pyrroline N-oxide) is one of the least toxic to cells and animals, and possesses convenient pharmacokinetics (uptake, distribution, metabolism and excretion) in biological systems (2-6). Recent studies have determined that nitric oxide may substantially affect the quantitative determination of DMPO adducts, and therefore extra caution is required when studying generation of these species in the presence of nitric oxide or its radicals (1). DMPO adducts can be generated with protein and DNA radicals (7).

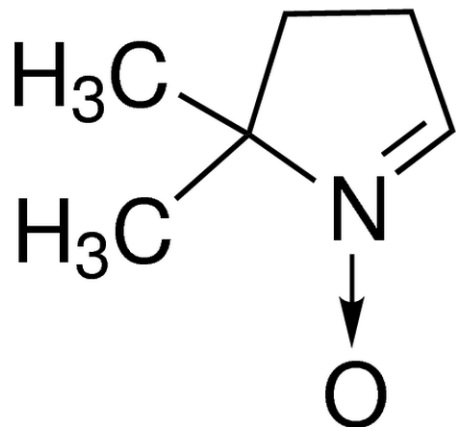
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**References**

1. Reszka K.J., et al. (2006) Nitric Oxide 15: 133-141.
  2. Ramirez D.C., Gomez-Mejiba S.E., and Mason R.P. (2007) Nat Protoc. 2(3): 512-522.
  3. Khan N., et al. (2003) Free Radic. Biol. Med 34:14731481.
  4. Haseloff R.F., et al. (1997) FEBS Lett 418:7375.
  5. Schaefer C.F., Janzen E.G., West M.S., Poyer J.L., and Kosanke S.D. (1996) Free Radic. Biol. Med 21:427436.
  6. Anzai K., et al. (2003) Arch. Biochem. Biophys 415:251256.
  7. Chatterjee S., Ehrenshaft, M., Bhattacharjee, S., Derterding, L.J., Bonini, M.G., Corbett, J., Kadiiska, M.B., Tomer K.B. and Mason, R.P. 2009 Free Radic. Med. and Biol. 46:454-461.
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**Product Images**

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Chemical structure of DMPO (SIH-324), a Nitron adduct formation. CAS #: 3317-61-1. Molecular Formula: C<sub>6</sub>H<sub>11</sub>NO. Molecular Weight: 13.16 g/mol.

### Product Citations (0)

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Currently there are no citations for this product.

### Reviews

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There are no reviews yet.