

**Product Name:** Pimonidazole

**Catalog No.:** 6182

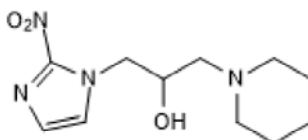
**Batch No.:** 1

CAS Number: 70132-50-2

IUPAC Name:  $\alpha$ -[(2-Nitro-1*H*-imidazol-1-yl)methyl]-1-piperidineethanol

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>11</sub>H<sub>18</sub>N<sub>4</sub>O<sub>3</sub>  
**Batch Molecular Weight:** 254.29  
**Physical Appearance:** Yellow solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 100 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.13 (Dichloromethane:Methanol [9:1])  
**HPLC:** Shows 99.9% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	51.96	7.13	22.03
Found	52.1	7.2	22.19

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Hypoxia detection reagent. Labels hypoxic tumor cells in vivo. Also labels hypoxic mesenchymal stem cells in mouse bone marrow.

**Physical and Chemical Properties:**

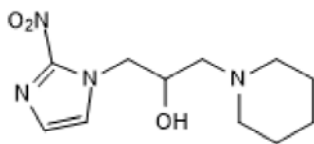
Batch Molecular Formula: C<sub>11</sub>H<sub>18</sub>N<sub>4</sub>O<sub>3</sub>

Batch Molecular Weight: 254.29

Physical Appearance: Yellow solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Sato *et al*** (2016) Notch2 signaling regulates the proliferation of murine bone marrow-derived mesenchymal stem/stromal cells via c-Myc expression. *PLoS One* **11** e0165946. PMID: 27855169.

**Bennewith *et al*** (2002) Orally administered pimonidazole to label hypoxic tumor cells. *Cancer Res.* **62** 6827. PMID: 12460894.

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