

Product Name: Pimonidazole

Catalog No.: 6182

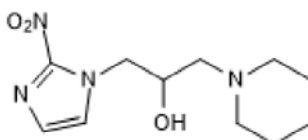
Batch No.: 1

CAS Number: 70132-50-2

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₁₈N₄O₃
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_f = 0.13 (Dichloromethane:Methanol [9:1])
HPLC: Shows 99.8% purity
¹H 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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CAS Number: 70132-50-2

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

Description:

Pimonidazole is a hypoxia detection reagent. Labels hypoxic tumor cells in vivo. Also labels hypoxic mesenchymal stem cells in mouse bone marrow.

Physical and Chemical Properties:

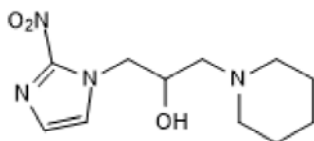
Batch Molecular Formula: C₁₁H₁₈N₄O₃

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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