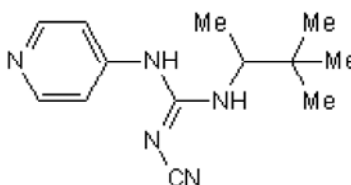


**Product Name:** Pinacidil  
**CAS Number:** 60560-33-0  
**IUPAC Name:** *N*-Cyano-*N'*-4-pyridinyl-*N''*-(1,2,2-trimethylpropyl)guanidine

**Catalog No.:** 1503      **Batch No.:** 2  
**EC Number:** 262-294-9

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>13</sub>H<sub>19</sub>N<sub>5</sub>·<sup>3</sup>/<sub>4</sub>H<sub>2</sub>O  
**Batch Molecular Weight:** 258.84  
**Physical Appearance:** White solid  
**Solubility:** ethanol to 100 mM with gentle warming  
DMSO to 100 mM with gentle warming  
**Storage:** Store at RT  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.48 (Dichloromethane:Methanol:Ammonia soln. [9:1:0.1])  
**Melting Point:** Between 110 - 111°C  
**HPLC:** Shows >99.8% purity  
**<sup>1</sup>H NMR:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	60.32	7.98	27.06
Found	60.46	8.17	26.91

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

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IUPAC Name: *N*-Cyano-*N'*-4-pyridinyl-*N''*-(1,2,2-trimethylpropyl)guanidine

**Description:**

K<sup>+</sup> channel opener and vasodilator. Activates K<sub>ATP</sub> channels (IC<sub>50</sub> for relaxation of coronary arteries = 1.26 μM). Clinically used antihypertensive agent.

**Physical and Chemical Properties:**

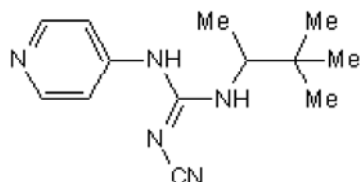
Batch Molecular Formula: C<sub>13</sub>H<sub>19</sub>N<sub>5</sub>·¾H<sub>2</sub>O

Batch Molecular Weight: 258.84

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

ethanol to 100 mM with gentle warming

DMSO to 100 mM with gentle warming

**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:**

**Gollasch et al** (1995) Pinacidil relaxes porcine and human coronary arteries by activating ATP-dependent potassium channels in smooth muscle cells. *J.Pharmacol.Exp.Ther.* **275** 681. PMID: 7473155.

**Kimura et al** (1988) Effects of an antihypertensive vasodilator, pinacidil, on regional blood flow in conscious spontaneously hypertensive rats. *J.Pharmacobiodyn.* **11** 430. PMID: 3171884.

**Petersen** (1978) Synthesis and hypotensive activity of *N*-alkyl-*N''*-cyano-*N'*-pyridylguanidines. *J.Med.Chem.* **21** 773. PMID: 691003.

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