

Certificate of Analysis

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Product Name: PNU 37883 hydrochloride

Catalog No.: 2095

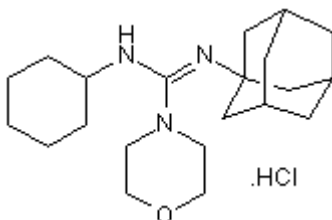
Batch No.: 1

CAS Number: 57568-80-6

IUPAC Name: *N*-Cyclohexyl-*N*-tricyclo[3.3.1.1^{3,7}]dec-1-yl-4-morpholinecarboximidamide hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₁H₃₅N₃O.HCl
Batch Molecular Weight: 381.98
Physical Appearance: White solid
Solubility: DMSO to 25 mM
ethanol to 100 mM
Storage: Desiccate at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.14 (Dichloromethane:Methanol:Ammonia soln. [9:1:0.1])
HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.03	9.5	11
Found	65.99	9.59	11.01

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

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Description:

Novel antagonist selective for the vascular form of $K_{ir}6$ (K_{ATP}) channel; inhibits $K_{ir}6$ currents in isolated mesenteric artery smooth muscle cells ($K_d = 65$ nM) but not in cardiac or skeletal myocytes. Inhibits blood vessel relaxation and hypotension induced by pinacidil in vivo. Displays weak diuretic effects.

Physical and Chemical Properties:

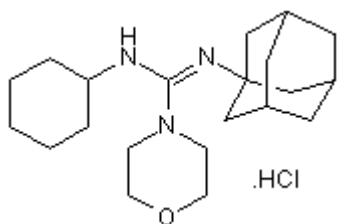
Batch Molecular Formula: $C_{21}H_{35}N_3O.HCl$

Batch Molecular Weight: 381.98

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Humphrey and Ludens (1998) K_{ATP} -blocking diuretic PNU-37883A reduces plasma renin activity in dogs. *J.Cardiovasc.Pharmacol.* **31** 894. PMID: 9641474.

Cui et al (2003) Different molecular sites of action for the K_{ATP} channel inhibitors, PNU-99963 and PNU-37883A. *Br.J.Pharmacol.* **139** 122. PMID: 12746230.

Kovalev et al (2004) Molecular analysis of the subtype-selective inhibition of cloned K_{ATP} channels by PNU-37883A. *Br.J.Pharmacol.* **141** 867. PMID: 14757705.

Storage: Desiccate at RT

Solubility & Usage Info:

DMSO to 25 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.

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