TOCRIS
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Print Date: Jan 13th 2016

Certificate of Analysis

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Product Name: **P1075** **Catalog No.: 1355** **Batch No.: 3**

CAS Number: 60559-98-0

IUPAC Name: *N*-cyano-*N*'-(1,1-dimethylpropyl)-*N*''-3-pyridylguanidine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{12}H_{17}N_5$

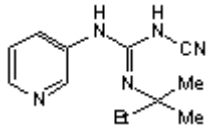
Batch Molecular Weight: 231.3

Physical Appearance: White solid

Solubility: ethanol to 50 mM
DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.66 (Dichloromethane:Methanol [9:1])

Melting Point: At 184°C

HPLC: Shows 100% purity

^{1}H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	62.31	7.41	30.28
Found	62.14	7.46	29.96

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Description:

Potent $K_{ir}6$ (K_{ATP}) channel opener (EC_{50} for relaxation of rat aorta = 7.5 nM). Binds to SUR2A and SUR2B with high affinity (K_d values are 17 and 3 nM respectively).

Physical and Chemical Properties:

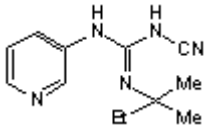
Batch Molecular Formula: $C_{12}H_{17}N_5$

Batch Molecular Weight: 231.3

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

ethanol to 50 mM
DMSO 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:

Higdon *et al* (1997) Tissue and species variation in the vascular receptor binding of ^{3}H-P1075, a potent K_{ATP} opener vasodilator. J.Pharmacol.Exp.Ther. ***280*** 255. PMID: 8996204.

Gross *et al* (1999) Stoichiometry of potassium channel opener action. Mol.Pharmacol. ***56*** 1370. PMID: 10570067.

Ashcroft and Gribble (2000) New windows on the mechanism of action of K_{ATP} channel openers. TiPS ***21*** 439. PMID: 11121575.

Buckner *et al* (2000) Pharmacological and molecular analysis of ATP-sensitive K^+ channels in the pig and human detrusor. Eur.J.Pharmacol. ***400*** 287. PMID: 10988346.