

Certificate of Analysis

Product Name: Nicorandil

CAS Number: 65141-46-0

IUPAC Name: *N*-[2-(Nitrooxy)ethyl]-3-pyridinecarboxamide

Catalog No.: 2147

Batch No.: 1

EC Number: 265-514-1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₈H₉N₃O₄·0.1H₂O

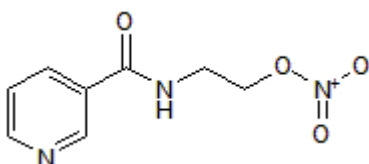
Batch Molecular Weight: 212.98

Physical Appearance: White solid

Solubility: water to 20 mM

Storage: Desiccate at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.51 (Dichloromethane:Methanol [9:1])

¹H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	45.12	4.35	19.73
Found	45.04	4.2	19.67

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

Product Name: Nicorandil

CAS Number: 65141-46-0

IUPAC Name: *N*-[2-(Nitrooxy)ethyl]-3-pyridinecarboxamide

Catalog No.: 2147

EC Number: 265-514-1

Batch No.: 1

Description:

K_{ir}6 (K_{ATP}) channel opener and NO donor; antianginal agent. Preferentially activates SUR2B- versus SUR2A-containing K_{ir}6 channels (EC₅₀ values are 10 and > 500 μM respectively) and causes 1.6-fold increase in cardiac eNOS expression. Displays coronary and peripheral vasodilatory properties, reduces both pre- and after-load, and increases coronary blood flow. Also displays cardioprotective effects, possibly through ischemic preconditioning.

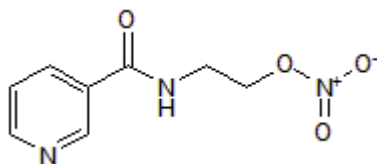
Physical and Chemical Properties:

Batch Molecular Formula: C₈H₉N₃O₄.0.1H₂O

Batch Molecular Weight: 212.98

Physical Appearance: White solid

Batch Molecular Structure:



References:

Shindo et al (1998) SUR2 subtype (A and B)-dependent differential activation of the cloned ATP-sensitive K⁺ channels by pinacidil and nicorandil. *Br.J.Pharmacol.* **124** 985. PMID: 9692785.

Horinaka et al (2001) Nicorandil enhances cardiac endothelial nitric oxide synthase expression via activation of adenosine triphosphate-sensitive K channel in rat. *J.Cardiovasc.Pharmacol.* **38** 200. PMID: 11483869.

Gomma et al (2001) Potassium channel openers in myocardial ischaemia: therapeutic potential of nicorandil. *Drugs* **61** 1705. PMID: 11693460.

Storage: Desiccate at +4°C

Solubility & Usage Info:

water to 20 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.

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

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956