

**Product Name:** Ned K

**Catalog No.:** 5976

**Batch No.:** 1

**IUPAC Name:** (1*R*,3*S*)-1-[3-[[4-(2-Cyanophenyl)piperazin-1-yl]methyl]-4-methoxyphenyl]-2,3,4,9-tetrahydro-1*H*-pyrido[3,4-*b*]indole-3-carboxylic acid

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>31</sub>H<sub>31</sub>N<sub>5</sub>O<sub>3</sub>·½H<sub>2</sub>O

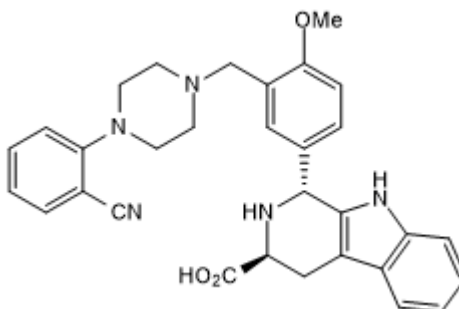
**Batch Molecular Weight:** 530.62

**Physical Appearance:** Cream solid

**Solubility:** DMSO to 50 mM  
ethanol to 20 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.2 (Chloroform:Methanol [4:1])

**HPLC:** Shows >99.2% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	70.17	6.08	13.2
Found	70.01	5.96	13.13

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**Description:**

NAADP inhibitor. Prevents Ca<sup>2+</sup> oscillations in rat cardiomyocytes in vitro during simulated ischemia and reperfusion, but exhibits no significant effect on Ca<sup>2+</sup> sparks. Significantly reduces infarct size in rat cardiac ischemia/reperfusion model in vivo.

**Physical and Chemical Properties:**

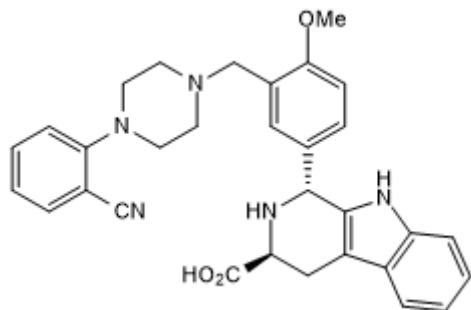
Batch Molecular Formula: C<sub>31</sub>H<sub>31</sub>N<sub>5</sub>O<sub>3</sub>·½H<sub>2</sub>O

Batch Molecular Weight: 530.62

Physical Appearance: Cream solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**CAUTION** - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 50 mM

ethanol 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.

**References:**

**Davidson et al (2015)** Inhibition of NAADP signalling on reperfusion protects the heart by preventing lethal calcium oscillations via two-pore channel 1 and opening of the mitochondrial permeability transition pore. *Cardiovasc.Res.* **108** 357. PMID: 26395965.

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**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