

Certificate of Analysis

Print Date: Apr 5th 2023

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Product Name: Ned K Catalog No.: 5976 Batch No.: 1

CAS Number: 2250019-90-8

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

3-carboxylic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{31}H_{31}N_5O_3.1/2H_2O$

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: $R_f = 0.2$ (Chloroform:Methanol [4:1])

HPLC: Shows 98.8% purity

¹H 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



Product Information

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3-carboxylic acid

Description:

Ned K is a NAADP inhibitor. Prevents Ca²⁺ oscillations in rat cardiomyocytes in vitro during simulated ischemia and reperfusion, but exhibits no significant effect on Ca²⁺ sparks. Significantly reduces infarct size in rat cardiac ischemia/reperfusion model in vivo.

Physical and Chemical Properties:

Batch Molecular Formula: C₃₁H₃₁N₅O₃.½H₂O

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.

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