

Certificate of Analysis

Print Date: Feb 21st 2022

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Product Name: NS 309 Catalog No.: 3895 Batch No.: 3

CAS Number: 18711-16-5

IUPAC Name: 6,7-Dichloro-1*H*-indole-2,3-dione 3-oxime

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_8H_4Cl_2N_2O_2.\frac{1}{2}H_2O$

Batch Molecular Weight: 240.05

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.4% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 40.03 2.1 11.67

Found 39.95 1.83 11.54

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Product Information

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CAS Number: 18711-16-5

IUPAC Name: 6,7-Dichloro-1*H*-indole-2,3-dione 3-oxime

Description:

NS 309 is a positive modulator of small- and intermediate-conductance Ca²+-activated K+ channels (K_{Ca} 2 and K_{Ca} 3.1 channels); increases Ca²+ sensitivity. Displays no activity at BK channels.

Physical and Chemical Properties:

Batch Molecular Formula: C₈H₄Cl₂N₂O₂.½H₂O

Batch Molecular Weight: 240.05 Physical Appearance: Yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at +4°C

Solubility & Usage Info:

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:

Grgic *et al* (2009) Endothelial Ca²⁺-activated K⁺ channels in normal and impaired EDHF-dilator responses - relevance to cardiovascular pathologies and drug discovery. Br.J.Pharmacol. *157* 509. PMID: 19302590.

Morimura *et al* (2006) Voltage-dependent Ca²⁺-channel block by openers of intermediate and small conductance Ca²⁺-activated K⁺ channels in urinary bladder smooth muscle cells. J.Pharm.Sci. *100* 237.

Strobaek *et al* (2004) Activation of human IK and SK Ca²⁺-activated K+ channels by NS309 (6,7-dichloro-1*H*-indole-2,3-dione 3-oxime). Biochim.Biophys.Acta *1665* 1. PMID: 15471565.