

Certificate of Analysis

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Product Name: NS 309

Catalog No.: 3895

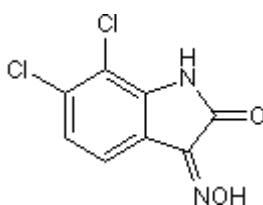
Batch No.: 2

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: C₈H₄Cl₂N₂O₂
Batch Molecular Weight: 231.04
Physical Appearance: Yellow solid
Solubility: DMSO to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.69 (Ethyl acetate)
HPLC: Shows 98.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	41.59	1.75	12.13
Found	41.44	1.72	12.03

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

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Description:

Positive modulator of small- and intermediate- conductance Ca²⁺-activated K⁺ channels (K_{Ca2} and K_{Ca3.1} channels); increases Ca²⁺ sensitivity. Displays no activity at BK channels.

Physical and Chemical Properties:

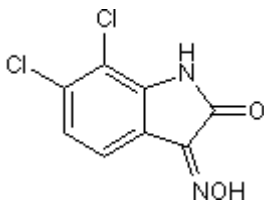
Batch Molecular Formula: C₈H₄Cl₂N₂O₂

Batch Molecular Weight: 231.04

Physical Appearance: Yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

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.

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.

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.

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.

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