

## Certificate of Analysis

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**Product Name:** NS 1619

**Catalog No.:** 3804

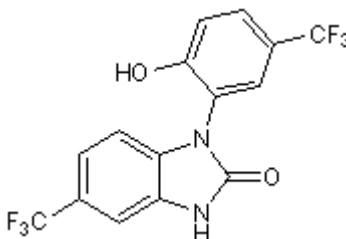
**Batch No.:** 4

CAS Number: 153587-01-0

IUPAC Name: 1,3-Dihydro-1-[2-hydroxy-5-(trifluoromethyl)phenyl]-5-(trifluoromethyl)-2H-benzimidazol-2-one

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>15</sub>H<sub>8</sub>F<sub>6</sub>N<sub>2</sub>O<sub>2</sub>  
**Batch Molecular Weight:** 362.23  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
ethanol to 100 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 98.5% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

|             | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 49.74  | 2.23     | 7.73     |
| Found       | 49.76  | 2.25     | 7.61     |

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

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**Description:**

Large-conductance Ca<sup>2+</sup>-activated potassium (BK<sub>Ca</sub>, K<sub>Ca</sub>1.1) channel activator. Induces a concentration-dependent decrease in mitochondrial membrane potential (EC<sub>50</sub> = 3.6 μM).

**Physical and Chemical Properties:**

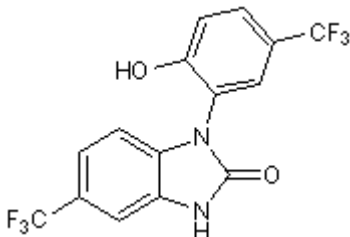
Batch Molecular Formula: C<sub>15</sub>H<sub>8</sub>F<sub>6</sub>N<sub>2</sub>O<sub>2</sub>

Batch Molecular Weight: 362.23

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at +4°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 100 mM

ethanol 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:**

**Han et al (2008)** The potassium ion channel opener NS1619 inhibits proliferation and induces apoptosis in A2780 ovarian cancer cells. *Biochem.Biophys.Res.Comm.* **375** 205.

**Debska et al (2003)** Large-conductance K<sup>+</sup> channel openers NS1619 and NS004 as inhibitors of mitochondrial function in glioma cells. *Biochem.Pharmacol.* **65** 1827. PMID: 12781334.

**Olesen et al (1994)** Selective activation of Ca(2+)-dependent K<sup>+</sup> channels by novel benzimidazolone. *Eur.J.Pharmacol.* **251** 53. PMID: 8137869.

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