

# Certificate of Analysis

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**Product Name:** CDN 1163

**Catalog No.:** 5869

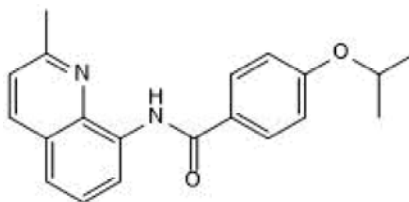
**Batch No.:** 1

CAS Number: 892711-75-0

IUPAC Name: 4-(1-Methylethoxy)-N-(2-methyl-8-quinolinyl)benzamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>20</sub>H<sub>20</sub>N<sub>2</sub>O<sub>2</sub>  
**Batch Molecular Weight:** 320.38  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 100 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 100% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	74.98	6.29	8.74
Found	75.16	6.25	8.6

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

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## Product Information

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### Description:

SERCA2 allosteric activator. Increases Ca<sup>2+</sup>-ATPase activity and Ca<sup>2+</sup> uptake by ER microsomes from obese mice. Rescues HEK cells from ER stress-induced cell death. Reduces fasting glucose levels and adipose tissue weight, and increases energy expenditure in ob/ob mice. Also improves glucose tolerance and reverses hepatic steatosis in ob/ob mice. Neuroprotective and improves memory and cognition in a mouse Alzheimer's disease model. Orally bioavailable.

### Physical and Chemical Properties:

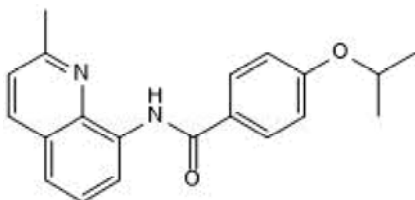
Batch Molecular Formula: C<sub>20</sub>H<sub>20</sub>N<sub>2</sub>O<sub>2</sub>

Batch Molecular Weight: 320.38

Physical Appearance: White solid

**Minimum Purity:** >98%

### Batch Molecular Structure:



**Storage:** Store at RT

### 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:

**Krajnak and Dahl *et al*** (2018) A new target for Alzheimer's disease: A small molecule SERCA activator is neuroprotective *in vitro* and improves memory and cognition in APP/PS1 mice. *Bioorg.Med.Chem.Lett.* **28** 1591. PMID: 29602679 .

**Kang *et al*** (2016) Small molecular allosteric activator of the sarco/endoplasmic reticulum Ca<sup>2+</sup>-ATPase (SERCA) attenuates diabetes and metabolic disorders. *J.Biol.Chem.* **291** 5185. PMID: 26702054.

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