

## Certificate of Analysis

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**Product Name:** Nicotinamide

CAS Number: 98-92-0

IUPAC Name: Pyridine-3-carboxamide

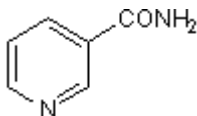
**Catalog No.:** 4106

EC Number: 202-713-4

**Batch No.:** 1

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>6</sub>H<sub>6</sub>N<sub>2</sub>O  
**Batch Molecular Weight:** 122.12  
**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	59.01	4.95	22.94
Found	58.95	4.93	23.01

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

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IUPAC Name: Pyridine-3-carboxamide

**Description:**

Anti-inflammatory agent. Inhibitor of poly(ADP-ribose) polymerase (PARP-1) enzymes. NAD<sup>+</sup> precursor. Promotes differentiation of mesenchymal stem cells to insulin producing cells when used in combination with growth factors and high glucose concentration.

**Physical and Chemical Properties:**

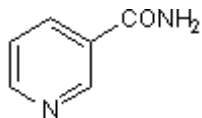
Batch Molecular Formula: C<sub>6</sub>H<sub>6</sub>N<sub>2</sub>O

Batch Molecular Weight: 122.12

Physical Appearance: White solid

**Minimum Purity:** >99%

**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:**

**Cimadamore et al** (2009) Nicotinamide rescues human embryonic stem cell-derived neuroectoderm from parthanatic cell death. *Stem Cells*. **27** 1772. PMID: 19544437.

**Suzuki et al** (2010) Protective effect of nicotinamide against poly(ADP-ribose) polymerase-1-mediated astrocyte death depends on its transporter-mediated uptake. *Life.Sci*. **86** 676. PMID: 20188745.

**Czubak et al** (2014) A modified method of insulin producing cells' generation from bone marrow-derived mesenchymal stem cells. *J.Diabetes Res*. **2014** 628591. PMID: 25405207.

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