

**Certificate of Analysis****www.tocris.com****Product Name:** Nicotinamide

CAS Number: 98-92-0

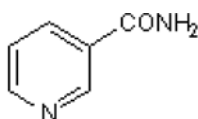
IUPAC Name: Pyridine-3-carboxamide

**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:** water 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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**Catalog No.:** 4106

**1**

CAS Number: 98-92-0

EC Number: 202-713-4

IUPAC Name: Pyridine-3-carboxamide

**Description:**

Nicotinamide is an 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. Nicotinamide also acts as a SIRT1 inhibitor and promotes the expansion of hematopoietic progenitor cells. For more information about how Nicotinamide may be used, see our protocol: 3D Culture of Lung Alveolar Cells

**Physical and Chemical Properties:**

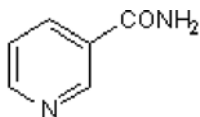
Batch Molecular Formula: C<sub>6</sub>H<sub>6</sub>N<sub>2</sub>O

Batch Molecular Weight: 122.12

Physical Appearance: White solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**References:**

**Bartfeld et al** (2015) *In vitro* expansion of human gastric epithelial stem cells and their responses to bacterial infection. *Gastroenterology* **148** 126. PMID: 25307862.

**Boj et al** (2015) Organoid models of human and mouse ductal pancreatic cancer. *Cell* **160** 324. PMID: 25557080.

**Sato et al** (2015) SnapShot: Growing organoids from stem cells. *Cell* **161** 1700. PMID: 26091044.

**Storage:** Store at RT

**Solubility & Usage Info:**

water 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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