

# Certificate of Analysis

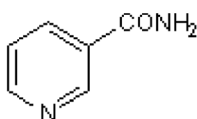
[www.tocris.com](http://www.tocris.com)

**Product Name:** Nicotinamide  
**CAS Number:** 98-92-0  
**IUPAC Name:** Pyridine-3-carboxamide

**Catalog No.:** 4106  
**Batch No.:** 1  
**EC Number:** 202-713-4

## 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

**bio-techne.com**  
info@bio-techne.com  
techsupport@bio-techne.com

**North America**  
Tel: (800) 343 7475

**China**  
info.cn@bio-techne.com  
Tel: +86 (21) 52380373

**Europe Middle East Africa**  
Tel: +44 (0)1235 529449

**Rest of World**  
[www.tocris.com/distributors](http://www.tocris.com/distributors)  
Tel: +1 612 379 2956

## Product Information

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**Product Name:** Nicotinamide

**Catalog No.:** 4106

**Batch No.:** 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. Nicotinamide can be used in a small molecule cocktail to generate 3D culture of lung alveolar cells. Nicotinamide synthesized to Ancillary Material Grade also available. For more information about how Nicotinamide may be used, see our protocol: 3D Culture of Lung ... Please see product specific page on [www.tocris.com](http://www.tocris.com) for full description.

### Physical and Chemical Properties:

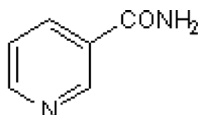
Batch Molecular Formula: C<sub>6</sub>H<sub>6</sub>N<sub>2</sub>O

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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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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