

## Nicotinamide, SIRT1 inhibitor; essential nutrient

Catalog	Unit
TBI2840 - 1G	1 g
TBI2840 - 5G	5 g

# **Product Details**

Formal Name: Pyridine-3-carboxylic acid amide

Alternate Names: Nicotinic acid amide; Niacinamide; Vitamin B3, NAM

**Molecular Formula:** C<sub>6</sub>H<sub>6</sub>N<sub>2</sub>O **Formula Weight:** 122.1 **CAS Number:** 98-92-0

Purity: >99%

Formulation: Powder

**Solubility:** Soluble in DMSO (up to 50 mg/ml) or in Water (up to 50 mg/ml)

**Storage:** RT **Stability:**  $\geq 2$  years.

## **Applications**

SIRT1 inhibitor; essential nutrient

# **Functions**

Nicotinamide (98-92-0) is an essential nutrient (amide form of Vitamin  $B_3$ ) that is incorporated into cofactors NADH/NAD<sup>+</sup>, important for ATP production and other key metabolic functions.1 Transiently inhibits SIRT1/SIRT3 through feedback inhibition (IC<sub>50</sub> ~ 50  $\mu$ M), but is quickly converted to NAD<sup>+</sup> in cells. Also inhibits certain kinases (e.g. ROCK and CK1), making it a regulator of hPSC pluripotency, survival, and differentiation. Inhibits differentiation and enhances functionality of hematopoietic stem/progenitor cells (HSPCs).

### **Application Procedures**

First dissolved in DMSO (up to 50 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20°C for up to 3 months.

#### **Relative Products**

TBI1170	Mitomycin C
TBI1345	E64, Cysteine protease inhibitor
TBI1347	E64d, Cysteine protease inhibitor
TBI2064	Chromomycin A3
TBI2069	Cytochalasin B
TBI2794	5-EDU, DNA Click labeling probe
TBI2071	Cytochalasin D
TBI1286	Bestatin, Aminopeptidase inhibitor
TBI2140	Gemcitabline
TBI2058	Aphidicolin, DNA polymerase Inhibitor

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