

Store at RT
#33218

Nicotinamide

50 mg



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Background

Nicotinamide, a form of vitamin B3, is a NAD⁺ precursor and inhibitor of sirtuin 1 (SIRT1) with an IC₅₀ value of <50 uM (1). Nicotinamide is a key component of increasing cell survival and longevity, and plays a critical role in microglial function. It has been shown to prevent apoptosis in neuronal cells and is also a PARP-1 inhibitor, which has been shown to improve cognitive function in Alzheimer's disease patients (2).

Molecular Formula

C₆H₆N₂O

Molecular Weight

122.1 g/mol

Purity

>99%

CAS

98-92-0

Solubility

Soluble in DMSO at 50 mg/mL or water at 50 mg/mL.

Storage

Store lyophilized at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°C and use within 3 months to prevent loss of potency. *Aliquot to avoid multiple freeze/thaw cycles.*

Directions for Use

Nicotinamide is supplied as a lyophilized powder. For a 15 mM stock, reconstitute 5 mg of powder in 2.73 mL of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

Background References

1. Bitterman, K.J. et al. (2002) *J Biol Chem* 277, 45099-107.
2. Li, F. et al. (2006) *Curr Med Chem* 13, 883-95.

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