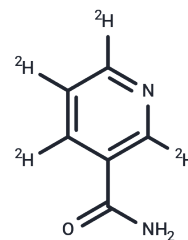


## Nicotinamide-D4

## Chemical Properties

CAS No. :	347841-88-7
Formula:	C <sub>6</sub> H <sub>2</sub> D <sub>4</sub> N <sub>2</sub> O
Molecular Weight:	126.15
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Nicotinamide-D4 is a deuterium-labelled compound of Nicotinamide (TMSM-1731) for isotope tracing. Nicotinamide, a vitamin B3 derivative, inhibits SIRT1 and SIRT2.
Targets(IC50)	Endogenous Metabolite,Sirtuin

## Solubility Information

Solubility	DMSO: 80 mg/mL (634.17 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (26.16 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	7.9271 mL	39.6354 mL	79.2707 mL
5 mM	1.5854 mL	7.9271 mL	15.8541 mL
10 mM	0.7927 mL	3.9635 mL	7.9271 mL
50 mM	0.1585 mL	0.7927 mL	1.5854 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Adams KN, et al. Verapamil, and its metabolite norverapamil, inhibit macrophage-induced, bacterial efflux pump-mediated tolerance to multiple anti-tubercular drugs. J Infect Dis. 2014 Aug 1;210(3):456-66.

Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

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