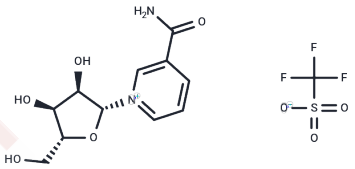
Data Sheet (Cat.No.T33663)

TargetMol

Nicotinamide Riboside Triflate

Chemical Properties



CAS No. : 445489-49-6

Formula: C12H15F3N2O8S

Molecular Weight: 404.32

Storage: Store at low temperature
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 Riboside Triflate (SRT647 Triflate) is a natural NAD precursor that increases NAD levels, enhances oxidative metabolism and prevents obesity induced by a high-fat diet+, and can be used in studies of muscle atrophy.
Targets(IC50)	Endogenous Metabolite,Sirtuin
In vitro	Nicotinamide Riboside Triflate (1-1000 μM; HEK293T cells) exhibits a concentration-dependent increase in intracellular and mitochondrial NAD+ content in C2C12, Hepa1.6, and HEK293 cells.[1] Nicotinamide Riboside Triflate (0.5 nM; 24 h; HEK293T cells) reduces the acetylation status of Ndufa9 and SOD2.[1] Nicotinamide Riboside Triflate enhances NAD levels to reinstate the antiviral poly(ADP-ribose) polymerase (PARP) functions, bolstering innate immunity against coronaviruses (CoVs), a contributing factor to COVID-19.[3]
In vivo	Nicotinamide Riboside Triflate (400 mg/kg/day; p.o.; for 16 weeks; 10-week-old C57Bl/6J mice) results in tissue-specific increases in both plasma and intracellular NAD+ levels.[1]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4733 mL	12.3664 mL	24.7329 mL
5 mM	0.4947 mL	2.4733 mL	4.9466 mL
10 mM	0.2473 mL	1.2366 mL	2.4733 mL
50 mM	0.0495 mL	0.2473 mL	0.4947 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

Cantó C, et al. The NAD(+) precursor nicotinamide riboside enhances oxidative metabolism and protects against high-fat diet-induced obesity. Cell Metab. 2012 Jun 6;15(6):838-47.

Gong B, et al. Nicotinamide riboside restores cognition through an upregulation of proliferator-activated receptor-γ coactivator 1α regulated β-secretase 1 degradation and mitochondrial gene expression in Alzheimer's mouse models. Neurobiol Aging. 2013 Jun;34(6):1581-8.

Heer CD, et al. Coronavirus infection and PARP expression dysregulate the NAD Metabolome: an actionable component of innate immunity. bioRxiv [Preprint]. 2020 Oct 6:2020.04.17.047480.

Kourtzidis IA, Dolopikou CF, Tsiftsis AN, Margaritelis NV, Theodorou AA, Zervos IA, Tsantarliotou MP, Veskoukis AS, Vrabas IS, Paschalis V, Kyparos A, Nikolaidis MG. Nicotinamide riboside supplementation dysregulates redox and energy metabolism in rats: Implications for exercise performance. Exp Physiol. 2018 Oct;103(10):1357-1366. doi: 10.1113/EP086964. Epub 2018 Aug 28. PubMed PMID: 30007015.