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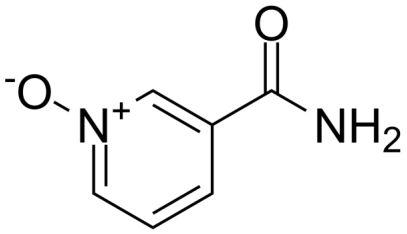
Data Sheet

Product Information

Catalog Number	BP12549
Product Name	Nicotinamide N-oxide
Description	Nicotinamide N-oxide is recognized as an in vivo metabolite of nicotinamide which is a precurser of nicotinamide-adenine dinucleotide (NAD+) in animals. The enzyme that catalyzes the reduction of nicotinamide N-oxide to nicotinamide in the liver is xanthine oxidase.
In vitro	Nicotinamide is one of the forms of vitamin B3. It is a precursor for nicotinamide adenine dinucleotide, which is best known as an electron carrier in oxidative phosphorylation and as a cofactor for many dehydrogenases. It is metabolized through two enzymatic systems. The first system starts with the methylation of nicotinamide by nicotinamide N-methyltransferase, which can subsequently be oxidized by aldehyde oxidase. The second enzymatic system oxidizes nicotinamide to nicotinamide N-oxide. A series of nicotinamide N-oxides is synthesized and shown to be novel, potent, and selective antagonists of the CXCR2 receptor. Compound 1 has demonstrated potent inhibition of neutrophil chemotaxis (IC50=10 nM). Compound 2 is a selective antagonist of IL-8 binding (IC50=110 nM) and potent inhibitor of neutrophil chemotaxis (IC50=170 nM).
Synonyms	Nicotinamide-N-oxide, 1-oxynicotinamide, Nicotinamide 1-oxide
CAS No.	1986-81-8
Chemical Formula	C6H6N2O2
Molecular Weight	138.126
Solubility	H2O: Limited solubility DMSO: 8 mg/mL(57.9 mM)

Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	

Purdue Bioscience Inc.

750 50th St, Brooklyn, NY 11220, USA

https://www.purduebio.com

1-877.618.7311

info@purduebio.com

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