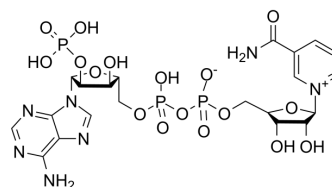


NADP

Cat. No.:	HY-113325
CAS No.:	53-59-8
Molecular Formula:	C ₂₁ H ₂₈ N ₇ O ₁₇ P ₃
Molecular Weight:	743.41
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

H₂O : 250 mg/mL (336.29 mM; Need ultrasonic)
DMSO : < 1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble or slightly soluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.3452 mL	6.7258 mL	13.4515 mL
	5 mM	0.2690 mL	1.3452 mL	2.6903 mL
	10 mM	0.1345 mL	0.6726 mL	1.3452 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS
Solubility: 100 mg/mL (134.52 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

NADP, a nicotinamide adenine dinucleotide, is a redox cofactor. NADP is a key cofactor for electron transfer in the metabolism, being alternately oxidized (NADP⁺) and reduced (NADPH). NADPH is the universal electron donor in cellular reductive biosyntheses and detoxification processes, and also plays a key role in oxidative defense system^{[1][2][3]}.

IC₅₀ & Target

Human Endogenous Metabolite

CUSTOMER VALIDATION

- Cell Prolif. 2021 Feb 25;e13015.
- Cell Oncol. 2023 Mar 13.

- Eur J Pharm Sci. 2023 May 22;106475.
- Insect Biochem Mol Biol. 2023 May 12;103958.

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- [1]. Agledal L, et al. The phosphate makes a difference: cellular functions of NADP. Redox Rep. 2010;15(1):2-10.
- [2]. Zhao FL, et al. A genetically encoded biosensor for in vitro and in vivo detection of NADP+. Biosens Bioelectron. 2016 Mar 15;77:901-6.
- [3]. O Carugo, et al. NADP-dependent enzymes. I: Conserved stereochemistry of cofactor binding. Proteins. 1997 May;28(1):10-28.
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Caution: Product has not been fully validated for medical applications. For research use only.

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