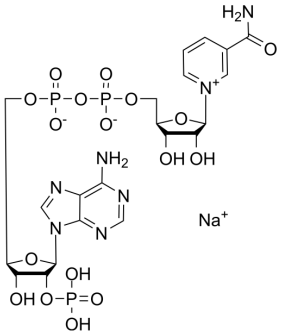
NADP sodium salt

Cat. No.:	HY-F0002
CAS No.:	1184-16-3
Molecular Formula:	$C_{21}H_{27}N_7NaO_{17}P_3$
Molecular Weight:	765.39
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (130.65 mM; Need ultrasonic)
DMSO : 3.57 mg/mL (4.66 mM; ultrasonic and warming and heat to 80°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.3065 mL	6.5326 mL	13.0652 mL
	5 mM	0.2613 mL	1.3065 mL	2.6130 mL
	10 mM	0.1307 mL	0.6533 mL	1.3065 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 (130.65 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

NADP sodium salt is the sodium salt form of NADP (HY-113325). 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].

IC_{50} & 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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REFERENCES

[1]. Agledal L, et al. The phosphate makes a difference: cellular functions of NADP. Redox Rep. 2010;15(1):2-10.

[2]. O Carugo, et al. NADP-dependent enzymes. I: Conserved stereochemistry of cofactor binding. Proteins. 1997 May;28(1):10-28.

[3]. 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.

Caution: Product has not been fully validated for medical applications. For research use only.

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