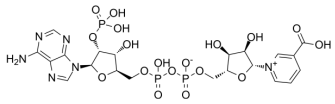
NAADP

Cat. No.:	HY-103317
CAS No.:	5502-96-5
Molecular Formula:	$C_{21}H_{27}N_6O_{18}P_3$
Molecular Weight:	744.39
Target:	Others
Pathway:	Others
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	NAADP, a nucleotide, is a Ca^{2+}-mobilizing second messenger. NAADP is essential for initiation of Ca^{2+} signaling[1][2].
In Vitro	NAADP (2.5-10 μM) induces Ca2+ release from acidic intracellular stores in cytotoxic T lymphocytes[2]. NAADP (10 μM, 30 min) stimulates cytolytic granule exocytosis in cytotoxic T lymphocyte[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	NAADP (0.181 mg/kg, i.v.) promotes autophagosome formation and protects the hepatocytes from injury in mice induced by LPS/GalN[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	LPS/GalN induced liver injury mice model[3]
Dosage:	0.181 mg/kg
Administration:	i.v.
Result:	Promoted autophagosome formation in in hepatocytes. Showed higher levels of LC3II, p62, ATG5, and ATG7 in hepatocytes.

REFERENCES

[1]. Walseth TF, et al: From Discovery to Mechanism. Front Immunol. 2021 Sep 7;12:703326.

[2]. Davis LC, et al. NAADP activates two-pore channels on T cell cytolytic granules to stimulate exocytosis and killing. Curr Biol. 2012 Dec 18;22(24):2331-7.

[3]. Rah SY, et al. NAADP-mediated Ca2+ signaling promotes autophagy and protects against LPS-induced liver injury. FASEB J. 2017 Jul;31(7):3126-3137.

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

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