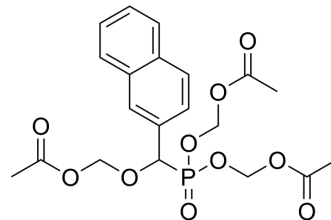


HNMPA-(AM)3

Cat. No.:	HY-124097
CAS No.:	120944-03-8
Molecular Formula:	C ₂₀ H ₂₃ O ₁₀ P
Molecular Weight:	454.36
Target:	Insulin Receptor
Pathway:	Protein Tyrosine Kinase/RTK
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (220.09 mM)
* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.2009 mL	11.0045 mL	22.0090 mL
	5 mM	0.4402 mL	2.2009 mL	4.4018 mL
	10 mM	0.2201 mL	1.1004 mL	2.2009 mL

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

BIOLOGICAL ACTIVITY

Description

HNMPA-(AM)3 is a cell-permeable and selective insulin receptor tyrosine kinase inhibitor analog of HNMPA. HNMPA-(AM)3 greatly inhibits the ability of prothoracicotrophic hormone (PTTH) to activate ERK phosphorylation and stimulate ecdysteroidogenesis. HNMPA-(AM)3 is also effective in inhibiting ecdysteroid production (IC₅₀=14.2 μM) and insulin receptor activity (IC₅₀ is 14.2 μM and 200 μM in mosquitoes and mammals, respectively)^{[1][2]}.

IC₅₀ & Target

IC₅₀: 14.2 μM (ecdysteroid production), 14.2 μM (mosquito insulin receptor), 200 μM (mammalian insulin receptor)^[2]

REFERENCES

[1]. Riehle MA, et al. Insulin stimulates ecdysteroid production through a conserved signaling cascade in the mosquito *Aedes aegypti*. *Insect Biochem Mol Biol.* 1999 Oct;29(10):855-60.

[2]. Gu SH, et al. PTTH-stimulated ERK phosphorylation in prothoracic glands of the silkworm, *Bombyx mori*: role of Ca²⁺/calmodulin and receptor tyrosine kinase. *J Insect Physiol.* 2010;56(1):93-101.

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

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