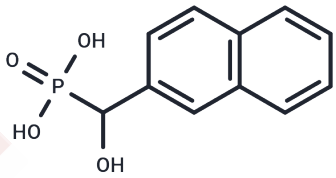
Data Sheet (Cat.No.T21761)

TargetMol

HNMPA

Chemical Properties



CAS No. : 132541-52-7

Formula: C11H11O4P

Molecular Weight: 238.18

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	HNMPA is a membrane impermeable inhibitor of insulin receptor tyrosine kinase. HNMPA inhibits tyrosine and serine autophosphorylation by the human insulin receptor. HNMPA exhibits no effect on cyclic AMP-dependent protein kinase or protein kinase C activities.
Targets(IC50)	IGF-1R
In vitro	HNMPA reduces neuronal firing after GABA application and blocks GABA-dependent insulin inhibition[1]. HNMPA has no effect on cyclic AMP-dependent protein kinase or protein kinase C activities[2].

Solubility Information

Solubility	DMSO: 55 mg/mL (230.92 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.1985 mL	20.9925 mL	41.9851 mL
5 mM	0.8397 mL	4.1985 mL	8.397 mL
10 mM	0.4199 mL	2.0993 mL	4.1985 mL
50 mM	0.084 mL	0.4199 mL	0.8397 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Peter Kovacs, et al. In vivo electrophysiological effects of insulin in the rat brain. Neuropeptides. 2009 Aug;43(4): 283-93.

K Baltensperger, et al. Catalysis of serine and tyrosine autophosphorylation by the human insulin receptor. Proc Natl Acad Sci U S A. 1992 Sep 1;89(17):7885-9.

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