

## cGMP Dependent Kinase Inhibitor Peptide acetate

## Chemical Properties

CAS No. :

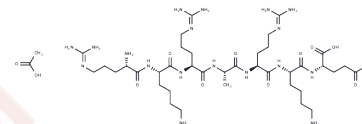
Formula: C40H78N18O12

Molecular Weight: 1003.16

Keep away from moisture

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	cGMP Dependent Kinase Inhibitor Peptide acetate is a highly selective, ATP-competitive inhibitor of cGMP-dependent protein kinase (PKG/cGKI). cGMP Dependent Kinase Inhibitor Peptide acetate is a synthetically produced peptide with a Ki value of 86 $\mu$ M. cGMP Dependent Kinase Inhibitor Peptide acetate inhibits PKG-dependent myosin light chain phosphorylation in vascular smooth muscle cells, blocking vasodilatory signaling, and is used in cardiovascular disease research. cGMP Dependent Kinase Inhibitor Peptide acetate also inhibits PfPKG in Plasmodium and Toxoplasma, and is used in antiparasitic research.
Targets(IC50)	PKA
In vitro	Methods: Brain slices from SD rats (P21-23) containing the medial prefrontal cortex (mPFC) were used to record from layer V pyramidal neurons. A 1 mM solution of cGMP Dependent Kinase Inhibitor Peptide acetate was administered via the recording electrode's intraslip channel. Whole-cell patch-clamp recordings of EPSCs were performed, and LTD was induced by CCh (50 $\mu$ M, 10 min). Results: Postsynaptic application of cGMP Dependent Kinase Inhibitor Peptide acetate did not block CCh-induced LTD. [1]

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	0.9968 mL	4.9842 mL	9.9685 mL
5 mM	0.1994 mL	0.9968 mL	1.9937 mL
10 mM	0.0997 mL	0.4984 mL	0.9968 mL
50 mM	0.0199 mL	0.0997 mL	0.1994 mL

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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

Huang CC, Hsu KS. Activation of muscarinic acetylcholine receptors induces a nitric oxide-dependent long-term depression in rat medial prefrontal cortex. *Cereb Cortex*. 2010;20(4):982-996.

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