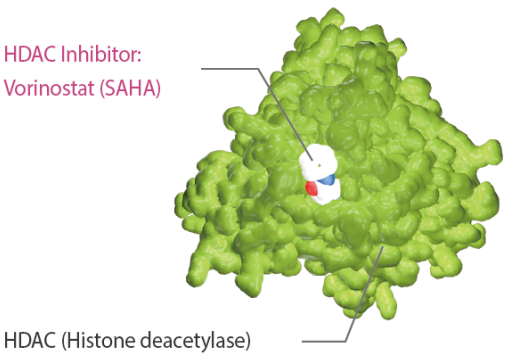
CaMK

Calmodulin-dependent protein kinases;Calmodulin-dependent kinases



The Ca^{2+}/calmodulin-dependent kinase (CaMK) family has been recognized as a key mediator in living organisms and various biological processes.

Calcium/calmodulin kinase II (CaMK II) is a multifunctional cytoplasmic calcium and calmodulin-dependent protein kinase that phosphorylates and alters the function of a variety of substrates. The CaMK II pathway has been found to regulate the RANKL-induced osteoclast formation via the cAMP-response element binding protein (CREB) pathway.

Among many signaling pathways of proliferation, intracellular calciumol/L has been extensively demonstrated to be very important. In cytoplasm, calciumol/L binds to calmodulin, and then activates the Ca^{2+}/calmodulin (CaM) dependent kinases (CaMKs) which are a family of structurally related serine/threonine protein kinases including CaMKI-IV. CaMKII, a multi functional protein kinase, is ubiquitously involved in many physiological processes including control of cell cycle, apoptosis, gene expression, and neurotransmission.

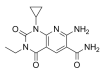
CaMK Inhibitors & Modulators

A-484954

Cat. No.: HY-110096

Bioactivity: A-484954 is a highly selective eukaryotic elongationfactor-2 **(eEF2)** inhibitor, with an **IC_{50}** of 280 nM.

Purity: 98.01%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg



Autocamtide 2

(Autocamtide II)

Cat. No.: HY-P0225

Bioactivity: Autocamtide 2 is a highly selective peptide substrate of calcium/calmodulin-dependent protein kinase II (**CaMKII**). It can be used in the CaMKII activity assay.

Purity: 98.17%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

KKALRRQETVDAL

Autocamtide 2, amide

Cat. No.: HY-P1528

Bioactivity: Autocamtide 2, amide is a substrate (100 μM final concentration) for **CaMK** family assays.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg

KKALRRQETVDAL-NH_2

Autocamtide-2-related inhibitory peptide TFA

Cat. No.: HY-P0214A

Bioactivity: Autocamtide-2-related inhibitory peptide (TFA) is a highly specific and potent inhibitor of **CaMKII** with an **IC_{50}** of 40 nM.

Purity: 98.48%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

KKALRRQEAVDAL

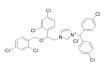
Calmidazolium chloride

(R 24571)

Cat. No.: HY-103319

Bioactivity: Calmidazolium chloride (R 24571) is a **calmodulin (CaMK)** antagonist, antagonizing CaM-dependent phosphodiesterase and calmodulin-induced activation of erythrocyte Ca2+-transporting ATPase with **IC_{50}**s of 0.15 and 0.35 μM, respectively [1]. A...

Purity: 99.0%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg



Calmodulin-Dependent Protein Kinase II 290-309

Cat. No.: HY-P1479

Bioactivity: Calmodulin-Dependent Protein Kinase II (290-309) is a potent **CaMK** antagonist with an **IC_{50}** of 52 nM for inhibition of Ca **2+**/calmodulin-dependent protein kinase II.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

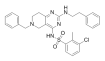
LKKFNARRKLKGAILTTMLA

CaMKII-IN-1

Cat. No.: HY-18271

Bioactivity: CaMKII-IN-1 is a potent and highly selective CaMKII inhibitor with IC50 of 63 nM; significantly high selectivity against CaMKIV, MLCK, p38a, Akt1, and PKC.

Purity: 98.09%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg



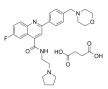
DDD107498 succinate

(DDD-498 succinate)

Cat. No.: HY-117684A

Bioactivity: DDD107498 succinate (DDD-498 succinate) is a potent and orally active **antimalarial** agent, inhibits multiple life-cycle stages of the parasite, with an **EC_{50}** of 1 nM against P. falciparum 3D7. DDD107498 succinate inhibits prot...

Purity: 98.72%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

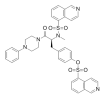


KN-62

Cat. No.: HY-13290

Bioactivity: KN-62 is a selective and potent inhibitor of calmodulin-dependent protein kinase II (**CaMK-II**) with **IC_{50}** of 0.9 μM, KN-62 also displays noncompetitive antagonism at **$P2X_7$** receptors in HEK293 cells, with an **IC_{50}** value...

Purity: 99.16%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg

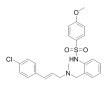


KN-92

Cat. No.: HY-15517

Bioactivity: KN-92 is an inactive derivative of KN-93. KN-93 is a selective inhibitor of Ca2+/calmodulin-dependent kinase II (CaMKII), competitively blocking CaM binding to the kinase (Ki = 370 nM).

Purity: >98%
Clinical Data: No Development Reported
Size: 2 mg, 5 mg, 10 mg, 50 mg



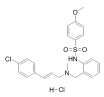
Tel: 609-228-6898 Fax: 609-228-5909 Email: sales@MedChemExpress.com

KN-92 hydrochloride

Cat. No.: HY-15517B

Bioactivity: KN-92 is an inactive derivative of KN-93. KN-93 is a selective inhibitor of Ca2+/calmodulin-dependent kinase II (CaMKII), competitively blocking CaM binding to the kinase (Ki = 370 nM).

Purity: 99.77%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 50 mg

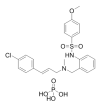


KN-92 phosphate

Cat. No.: HY-15517A

Bioactivity: KN-92 is an inactive derivative of KN-93. KN-93 is a selective inhibitor of Ca2+/calmodulin-dependent kinase II (CaMKII), competitively blocking CaM binding to the kinase (Ki = 370 nM). IC50 value: Target: KN-92 is intended to be used as a control compound in studies designed to elucidate the...

Purity: 99.94%
Clinical Data: No Development Reported
Size: 2 mg, 5 mg, 10 mg, 50 mg

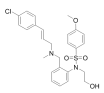


KN-93

Cat. No.: HY-15465

Bioactivity: KN-93 is a cell-permeable, reversible and competitive inhibitor calmodulin-dependent kinase type II (**CaMKII**) with a K_i of 370 nM.

Purity: 98.79%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 25 mg, 50 mg

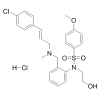


KN-93 hydrochloride

Cat. No.: HY-15465A

Bioactivity: KN-93 hydrochloride is a cell-permeable, reversible and competitive inhibitor calmodulin-dependent kinase type II (**CaMKII**) with a K_i of 370 nM.

Purity: 99.67%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 25 mg, 50 mg

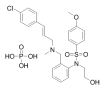


KN-93 phosphate

Cat. No.: HY-15465B

Bioactivity: KN-93 phosphate is a novel membrane-permeant synthetic inhibitor of purified neuronal **CaMK-II**, with K_i of 370 nM.

Purity: 99.97%
Clinical Data: No Development Reported
Size: 10mM x 1mL in Water, 1 mg, 5 mg, 10 mg, 50 mg



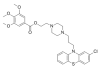
Metofenazate

(Methophenazine)

Cat. No.: HY-100263

Bioactivity: Metofenazate is a selective **calmodulin** inhibitor.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg



MLCK inhibitor peptide 18

Cat. No.: HY-P1029

Bioactivity: MLCK inhibitor peptide 18 is a myosin light chain kinase (**MLCK**) inhibitor with an **IC_{50}** of 50 nM, and inhibits **CaM kinase II** only at 4000-fold higher concentrations.

Purity: 98.71%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg, 25 mg

RKKYKYRRK-NH_2

NH125

Cat. No.: HY-100576

Bioactivity: NH125 is a potent and selective inhibitor of eukaryotic elongation factor 2 kinase **(eEF-2K/CaMKIII)**, also could induce eEF2 phosphorylation, with an **IC_{50}** of 60 nM for eEF-2K.

Purity: 98.0%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

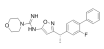
Rimacalib

(SMP 114)

Cat. No.: HY-100779

Bioactivity: Rimacalib is a Ca^{2+}/calmodulin-dependent protein kinase II **(CaMKII)** inhibitor, with **IC_{50}s** of ~1 μM for CaMKIIα to ~30 μM for CaMKIIγ.

Purity: 98.75%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

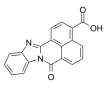


STO-609

Cat. No.: HY-19805

Bioactivity: STO-609 is a selective and cell-permeable inhibitor of the Ca^{2+}/calmodulin-dependent protein kinase kinase (**CaM-KK**), with K_i values of 80 and 15 ng/mL for recombinant CaM-KKα and CaM-KKβ, respectively. STO-609 inhibits AMP-activated prot...

Purity: 98.0%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg



Syntide 2

Cat. No.: HY-P0271

Bioactivity: Syntide 2 is recognized as a substrate by Ca^{2+}/calmodulin-dependent protein kinase II (**CaMKII**) with a K_i of 12 μM.

Purity: >98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg, 10 mg

PLARTLSVAGLPGKK