PI4K

Phosphatidylinositol 4 kinases; PI4 kinases

Phosphatidylinositol 4-kinases (PI4Ks) catalyze the synthesis of phosphatidylinositol 4-phosphate (PI4P), an important intermediate for the synthesis of membrane polyphosphoinositides, regulators of multiple cellular functions. PI4P defines the membranes of Golgi and trans-Golgi network (TGN) and regulates trafficking to and from the Golgi. Based on enzymatic differences, two classes of PI4K have been distinguished termed Types II (PI4KII) and III (PI4KIII), and each of which contains α and β isoforms.

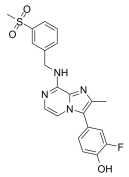
PI4KII alpha and beta have similar biochemical properties. PI4KIIIs (α- and β-forms) are soluble enzymes structurally related to PI3-kinases, and sensitive to PI3-kinase inhibitors, such as Wortmannin. PI4KIIs produce PtdIns 4-phosphate, an early key signaling molecule in phosphatidylinositol cycle, which is indispensable for T cell activation. PI4KIIIs plays a key role in the production of replication complexes (viral factories) of a number of positive-sense RNA viruses and represents a potential target for novel pan-viral therapeutics.

PI4K Inhibitors

BF738735

Cat. No.: HY-U00426

BF738735 is a phosphatidylinositol 4-kinase III beta (**PI4KIIIβ**) inhibitor with an **IC_{50}** of 5.7 nM.

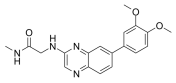


Purity: 99.15%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg

BQR-695

(NVP-BQR695) Cat. No.: HY-18748

BQR-695 is a **PI4KIIIβ** inhibitor with **IC_{50}**s of 80 and 3.5 nM for human PI4KIIIβ and Plasmodium variant of PI4KIIIβ, respectively.

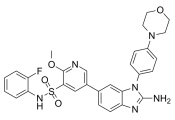


Purity: 99.87%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 2 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

GSK-A1

Cat. No.: HY-125118

GSK-A1 is a selective **type III phosphatidylinositol 4-kinase PI4KA (PI4KIIIα)** inhibitor with a **pIC_{50}** of 8.5-9.8. GSK-A1 inhibits PtdIns(4,5)P2 resynthesis with an IC_{50} of about 3 nM.

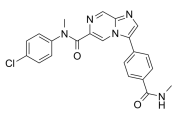


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

KDU691

Cat. No.: HY-12912

KDU691, an imidazopyrazine with potent anti-parasitic activity against blood stage schizonts, gametocytes and liver stages, is a **Plasmodium PI4K** inhibitor. KDU691 selectively inhibits dihydroartemisinin-pretreated Plasmodium falciparum ring-stage parasites.

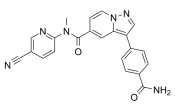


Purity: 99.56%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

KDU731

Cat. No.: HY-103583

KDU731, an orally active C. parvum **PI4K** inhibitor with an **IC_{50}** value of 25 nM, blocks Cryptosporidium infection in vitro and in vivo. KDU731 is a promising drug candidate for the treatment of diarrhea caused by Cryptosporidium and meets a broad range of safety.

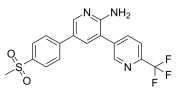


Purity: 98.0%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg

MMV390048

Cat. No.: HY-106005

MMV390048 is a representative of a new chemical class of Plasmodium **PI4K** inhibitor (K_d^{app}=0.3 μM).

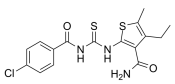


Purity: 99.17%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

PI-273

Cat. No.: HY-103489

PI-273 is a first reversibly and specific **phosphatidylinositol 4-kinase (PI4KIIα)** inhibitor with an **IC_{50}** of 0.47 μM. PI-273 can inhibit breast cancer cell proliferation, block the cell cycle and induce cell **apoptosis**.

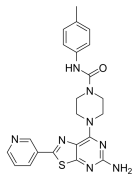


Purity: ≥98.0%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

PI4KIII beta inhibitor 3

Cat. No.: HY-15679

PI4KIII beta inhibitor 3 is a novel and high effective **PI4KIIIβ** inhibitor with **IC_{50}** of 5.7 nM.

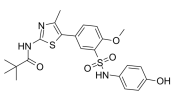


Purity: 99.44%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 2 mg, 5 mg, 10 mg

PI4KIIIbeta-IN-10

Cat. No.: HY-100198

PI4KIIIbeta-IN-10 is a potent **PI4KIIIβ** inhibitor with an **IC_{50}** of 3.6 nM.

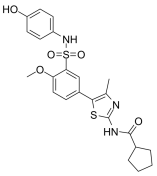


Purity: 99.84%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 25 mg, 50 mg

PI4KIIIbeta-IN-9

Cat. No.: HY-19798

PI4KIIIbeta-IN-9 is a potent **PI4KIIIβ** inhibitor with an **IC_{50}** of 7 nM. PI4KIIIbeta-IN-9 also inhibits **PI3Kδ** and **PI3Kγ** with **IC_{50}**s of 152 nM and 1046 nM, respectively.



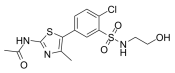
Purity: 99.01%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg, 25 mg, 50 mg

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

PIK-93

Cat. No.: HY-12046

PIK-93 is the first potent, synthetic **PI4K (PI4KIIIβ)** inhibitor with **IC_{50}** of 19 nM, and also inhibits **PI3Kγ** and **PI3Kα** with **IC_{50}** of 16 nM and 39 nM, respectively.

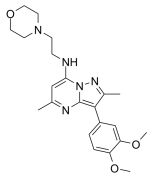


Purity: 99.37%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

T-00127_HEV1

Cat. No.: HY-108313

T-00127_HEV1 is a **phosphatidylinositol 4-kinase III beta** (**PI4KB**) inhibitor with an **IC_{50}** of 60 nM.

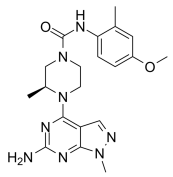


Purity: 99.97%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg

UCB9608

Cat. No.: HY-112613

UCB9608 is a potent, selective and orally active **PI4KIIIβ** inhibitor, with an **IC_{50}** of 11 nM, selective over PI3KC2 α, β, and γ lipid kinases. UCB9608 improves metabolic stability and exhibits excellent pharmacokinetic profile, acts as a potent immunosuppressive agent.

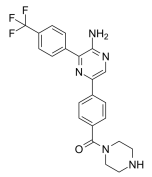


Purity: 99.43%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

UCT943

Cat. No.: HY-112435

UCT943 is a next-generation Plasmodium falciparum **PI4K** inhibitor. UCT943 inhibits the P. vivax PI4K (PvPI4K) enzyme with an **IC_{50}** of 23 nM.



Purity: 98.70%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 50 mg