Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Ibrutinib

Catalog No: tcsc0015

Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg

Size: 1g

Specifications

CAS No:
936563-96-1

Formula:
$C_{25}H_{24}N_6O_2$

Pathway:
Protein Tyrosine Kinase/RTK

Target:
Btk

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 30 mg/mL (68.10 mM)

Alternative Names:
PCI-32765

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Observed Molecular Weight:
440.5

Product Description

Ibrutinib (PCI-32765) is a selective, irreversible **Btk** inhibitor with an **IC_{50}** of 0.5 nM.

IC50 & Target: IC50: 0.5 nM (Btk)

In Vitro: Ibrutinib (PCI-32765) selectively inhibits B-cell signaling and activation. It inhibits autophosphorylation of Btk (IC_{50}=11 nM), phosphorylation of Btk\'s physiological substrate PLCγ (IC_{50}=29 nM), and phosphorylation of a further downstream kinase, ERK (IC_{50}=13 nM)[1]. Ibrutinib (PCI-32765) inhibits BCR-activated primary B cell proliferation (IC_{50}=8 nM). Following FcγR stimulation, Ibrutinib (PCI-32765) inhibits TNFα, IL-1β and IL-6 production in primary monocytes (IC_{50}=2.6, 0.5, 3.9 nM, respectively)[3].

In Vivo: Ibrutinib (PCI-32765) (3.125-50 mg/kg, p.o.) reduces the level of circulating autoantibodies and completely suppresses disease in mice with collagen-induced arthritis. Ibrutinib (PCI-32765) inhibits autoantibody production and the development of kidney disease in the MRL-Fas(lpr) lupus model. Ibrutinib (PCI-32765) (3.125-50 mg/kg, p.o.) reduces renal disease and autoantibody production in MRL-Fas(lpr) mice[1]. Ibrutinib (PCI-32765) (0.1 μM) inhibits activation-induced proliferation of CLL cells, induces selective cytotoxicity in B cells compared with T cells, but alters activation induced T-cell cytokine production[2]. Ibrutinib (PCI-32765) dose-dependently and potently reverses arthritic inflammation in a therapeutic CIA model with an ED_{50} of 2.6 mg/kg/day. Ibrutinib (PCI-32765) also prevents clinical arthritis in CAIA models[3].