

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

Observed Molecular Weight:

440.5

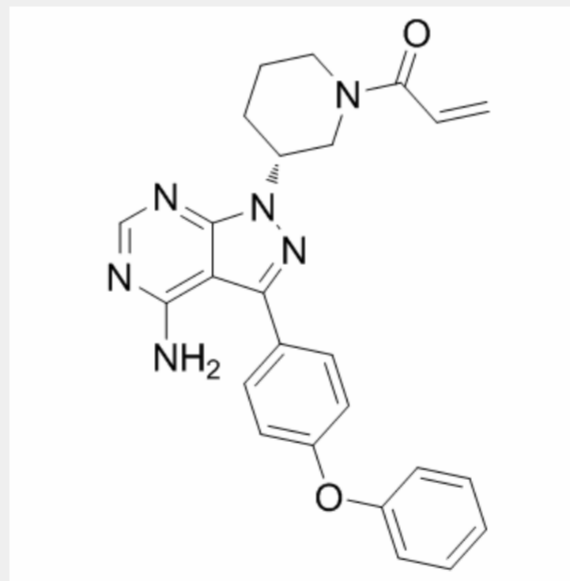
Product Description

Ibrutinib (PCI-32765) is a selective, irreversible **Btk** inhibitor with an **IC₅₀** 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 (IC₅₀=11 nM), phosphorylation of Btk's physiological substrate PLCγ (IC₅₀=29 nM), and phosphorylation of a further downstream kinase, ERK (IC₅₀=13 nM)^[1]. Ibrutinib (PCI-32765) inhibits BCR-activated primary B cell proliferation (IC₅₀=8 nM). Following FcγR stimulation, Ibrutinib (PCI-32765) inhibits TNFα, IL-1β and IL-6 production in primary monocytes (IC₅₀=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 ED₅₀ of 2.6 mg/kg/day. Ibrutinib (PCI-32765) also prevents clinical arthritis in CAIA models^[3].



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