

IC-87114

Catalog No: tcsc0184



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

371242-69-2

Formula:

$C_{22}H_{19}N_7O$

Pathway:

PI3K/Akt/mTOR

Target:

PI3K

Purity / Grade:

>98%

Solubility:

DMSO : 10 mg/mL (25.16 mM; Need ultrasonic)

Observed Molecular Weight:

397.43

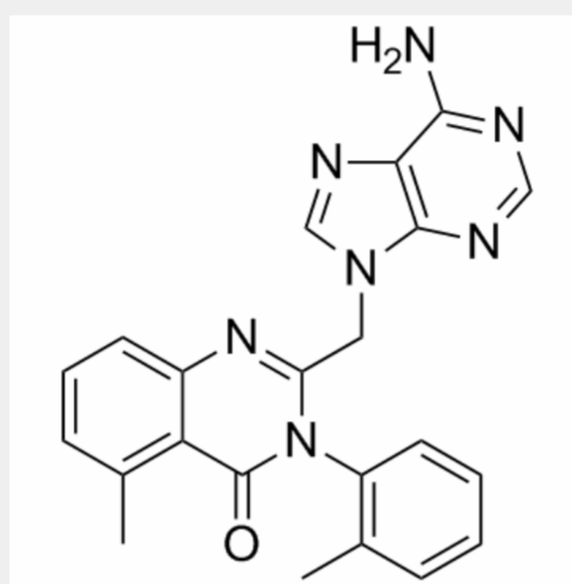
Product Description

IC-87114 is a potent and selective **PI3Kδ** inhibitor with **IC₅₀** of 0.5 μM.

IC50 & Target: IC50: 0.5 μ M (PI3K δ)^[1]

In Vitro: IC-87114 (IC87114), an analog of the original inhibitor, is synthesized and tested for PI3K δ selectivity relative to the other class I PI3Ks. The IC₅₀ of IC87114 for PI3K δ inhibition is 0.5 μ M whereas the IC₅₀ values for PI3K α , PI3K β , and PI3K γ are >100, 75, and 29 μ M, respectively. Thus IC87114 is 58-fold more selective for PI3K δ relative to PI3K γ , and over 100-fold selective relative to PI3K α and PI3K β . IC87114 selectively antagonizes PI3K δ over at least a concentration range of 0.3-10 μ M^[1]. IC-87114 (10 μ M) is also used to selectively inhibit PI3K δ catalytic activity to address this question. IC87114 (10 μ M) effectively inactivates Akt in macrophages after treatment for 1 hour (n=6; P[2]).

In Vivo: Treatment with PD 89059 (10 mg/kg), IC-87114 (0.3 mg/kg) and BAY 11-7085 (10 mg/kg), significantly (P<0.05). Of note, the observed reduction in the histopathological airway remodeling induced by PD 89059, IC-87114 and BAY 11-7085 are less effective as compared to the reduction seen with AG 1478 and SU6656^[3].



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