

# 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

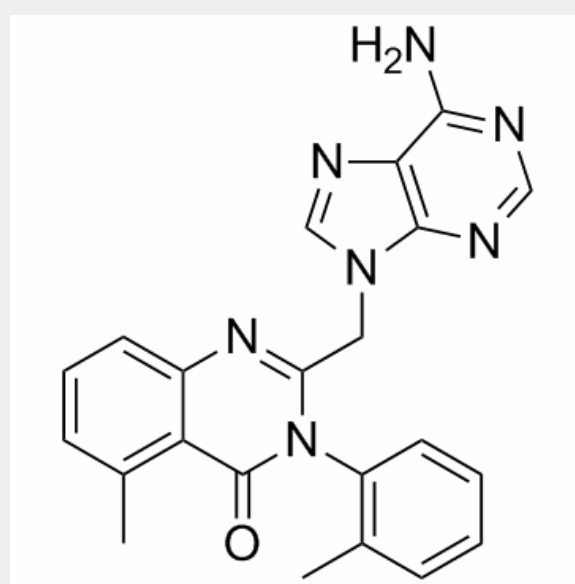
## Product Description

IC-87114 is a potent and selective **PI3Kδ** inhibitor with **IC<sub>50</sub>** of 0.5 μM.

IC50 & Target: IC50: 0.5  $\mu$ M (PI3K $\delta$ )<sup>[1]</sup>

**In Vitro:** IC-87114 (IC87114), an analog of the original inhibitor, is synthesized and tested for PI3K $\delta$  selectivity relative to the other class I PI3Ks. The IC<sub>50</sub> of IC87114 for PI3K $\delta$  inhibition is 0.5  $\mu$ M whereas the IC<sub>50</sub> values for PI3K $\alpha$ , PI3K $\beta$ , and PI3K $\gamma$  are >100, 75, and 29  $\mu$ M, respectively. Thus IC87114 is 58-fold more selective for PI3K $\delta$  relative to PI3K $\gamma$ , and over 100-fold selective relative to PI3K $\alpha$  and PI3K $\beta$ . IC87114 selectively antagonizes PI3K $\delta$  over at least a concentration range of 0.3-10  $\mu$ M<sup>[1]</sup>. IC-87114 (10  $\mu$ M) is also used to selectively inhibit PI3K $\delta$  catalytic activity to address this question. IC87114 (10  $\mu$ 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 (P0.05). 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<sup>[3]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!