

## **CAL-130 (Hydrochloride)**

**Catalog No: tcsc1300** 

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

#### CAS No:

1431697-78-7

#### Formula:

C<sub>23</sub>H<sub>23</sub>CIN<sub>8</sub>O

#### Pathway:

PI3K/Akt/mTOR

#### **Target:**

PI3K

**Purity / Grade:** 

# **Solubility:** 10 mM in DMSO

#### **Observed Molecular Weight:**

462.93

### **Product Description**

CAL-130 is a **PI3K6** and **PI3Ky** inhibitor with  $IC_{50}$ s of 1.3 and 6.1 nM, respectively.

IC50 & Target: IC50: 1.3 nM (P110δ), 6.1 nM (P110γ), 56 nM (p110β), 115  $(p110\alpha)^{[1]}$ 

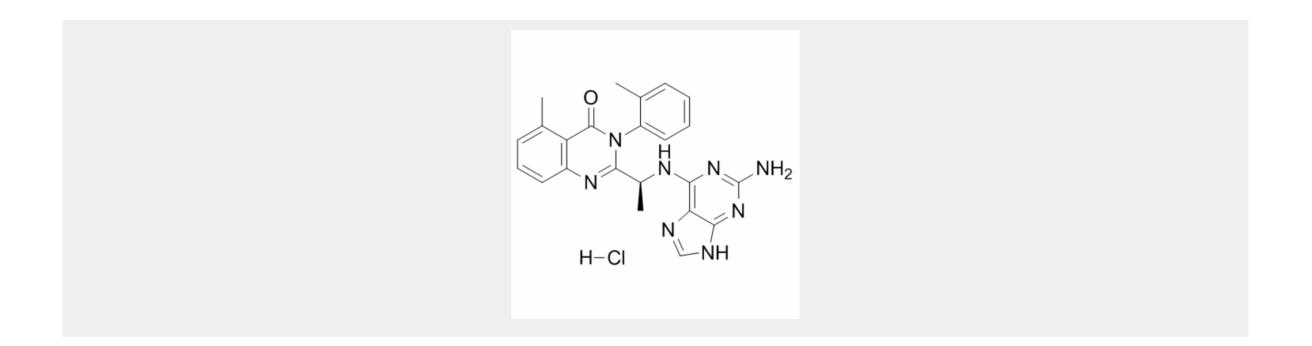
#### In Vitro:

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CAL-130 preferentially inhibits the function of both p110 $\gamma$  and p110 $\delta$  catalytic domains. IC<sub>50</sub> values of CAL-130 are 1.3 and 6.1 nM for p110 $\delta$  and p110 $\gamma$ , respectively, as compared to 115 and 56 nM for p110 $\alpha$  and p110 $\beta$ . CAL-130 does not inhibit additional intracellular signaling pathways (i.e., p38 MAPK or insulin receptor tyrosine kinase) that are critical for general cell function and survival<sup>[1]</sup>.

*In Vivo:* The clinical significance of interfering with the combined activities of PI3Ky and PI3Kô is determined by administering CAL-130 to *Lck/Pten<sup>fl/fl</sup>* mice with established T cell acute lymphoblastic leukemia (T-ALL). Candidate animals for survival studies are ill appearing, have a white blood cell (WBC) count above 45,000  $\mu$ L<sup>-1</sup>, evidence of blasts on peripheral smear, and a majority of circulation cells (>75%) staining double positive for Thy1.2 and Ki-67. Mice receive an oral dose (10 mg/kg) of CAL-130 every 8 hr for a period of 7 days and are then followed until moribund. Despite the limited duration of therapy, CAL-130 is highly effective in extending the median survival for treated animals to 45 days as compared 7.5 days for the control group<sup>[1]</sup>.



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