

CAL-130 (Hydrochloride)

Catalog No: tcsc1300



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg



Specifications

CAS No:

1431697-78-7

Formula:

$C_{23}H_{23}ClN_8O$

Pathway:

PI3K/Akt/mTOR

Target:

PI3K

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Observed Molecular Weight:

462.93

Product Description

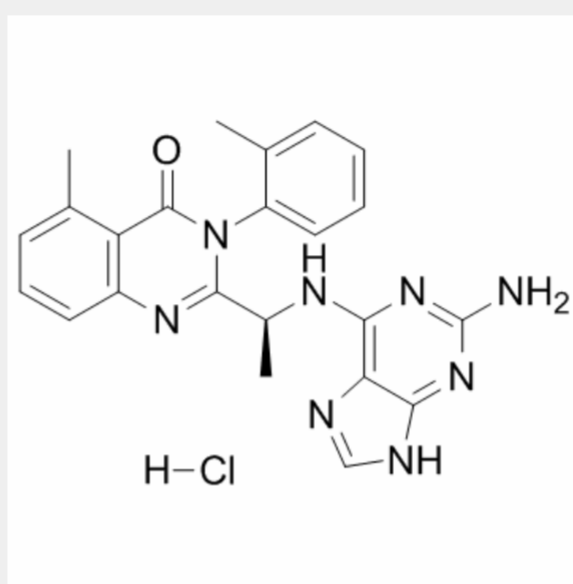
CAL-130 is a **PI3K δ** and **PI3K γ** inhibitor with **IC₅₀**s of 1.3 and 6.1 nM, respectively.

IC50 & Target: IC50: 1.3 nM (P110 δ), 6.1 nM (P110 γ), 56 nM (p110 β), 115 (p110 α)^[1]

In Vitro:

CAL-130 preferentially inhibits the function of both p110 γ and p110 δ catalytic domains. IC₅₀ values of CAL-130 are 1.3 and 6.1 nM for p110 δ and p110 γ , respectively, as compared to 115 and 56 nM for p110 α and p110 β . 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^[1].

In Vivo: The clinical significance of interfering with the combined activities of PI3K γ and PI3K δ is determined by administering CAL-130 to *Lck/Pten^{fl/fl}* 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 μL^{-1} , 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^[1].



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