Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Cabozantinib

Catalog No: tcsc0278

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg

Size: 1g

Specifications

CAS No:
849217-68-1

Formula:
$C_{28}H_{24}FN_3O_5$

Pathway:
Protein Tyrosine Kinase/RTK;Protein Tyrosine Kinase/RTK;Protein Tyrosine Kinase/RTK;Protein Tyrosine Kinase/RTK;Protein Tyrosine Kinase/RTK

Target:
c-Met/HGFR;VEGFR;FLT3;TAM Receptor;c-Kit

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 30 mg/mL (59.82 mM)

Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Alternative Names:
XL184;BMS-907351

Observed Molecular Weight:
501.51

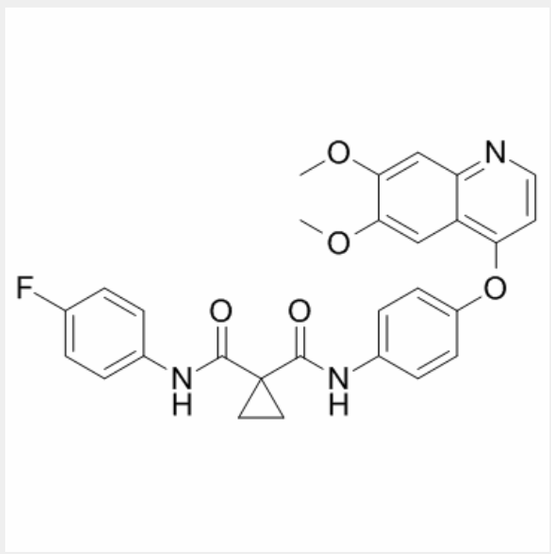
Product Description

Cabozantinib is a potent multiple RTKs inhibitor that inhibits **VEGFR2**, **c-Met**, **Kit**, **Axl** and **Flt3** with **IC_{50}** of 0.035, 1.3, 4.6, 7 and 11.3 nM, respectively.

IC50 & Target: IC50: 0.035 nM (VEGFR2), 1.3 nM (c-Met), 4.6 nM (Kit), 7 nM (Axl), 11.3 nM (Flt3)[1]

In Vitro: Cabozantinib is a potent inhibitor of MET and VEGFR2 with IC_{50} values of 1.3 and 0.035 nM, respectively. MET-activating kinase domain mutations Y1248H, D1246N, or K1262R are also inhibited by Cabozantinib (IC_{50}=3.8, 11.8, and 14.6 nM, respectively). Cabozantinib displays strong inhibition of several kinases that have also been implicated in tumor pathobiology, including KIT, RET, AXL, TIE2, and FLT3 (IC_{50}=4.6, 5.2, 7, 14.3, and 11.3 nM, respectively). In cellular assays, Cabozantinib inhibits phosphorylation of MET and VEGFR2, as well as KIT, FLT3, and AXL with IC_{50} values of 7.8, 1.9, 5.0, 7.5, and 42 μM, respectively. The effect of Cabozantinib on proliferation is evaluated in a number of human tumor cell lines. SNU-5 and Hs746T cells harboring amplified MET are the most sensitive to Cabozantinib (IC_{50}=19 and 9.9 nM, respectively); however, SNU-1 and SNU-16 cells lacking MET amplification are more resistant (IC_{50}=5,223 and 1,149 nM, respectively). MDA-MB-231 and U87MG cells exhibit comparable levels of sensitivity to Cabozantinib (IC_{50}=6,421 and 1,851 nM, respectively), whereas H441, H69, and PC3 cell lines are the least sensitive to Cabozantinib with IC_{50} values of 21,700, 20,200, and 10,800 nM, respectively. In addition, BaF3 cells expressing human FLT3-ITD, an activating mutation in acute myelogenous leukemia, are sensitive to Cabozantinib (IC_{50}=15 nM) when compared with wild-type BaF3 cells (IC_{50}=9,641 nM)[2].

In Vivo: Tumor vascularity decreases after Cabozantinib (XL184), with reductions ranging from 67% at 3 mg/kg to 83% at 30 mg/kg for 7 days[1]. In mouse models, Cabozantinib dramatically alters tumor pathology, resulting in decreased tumor and endothelial cell proliferation coupled with increased apoptosis and dose-dependent inhibition of tumor growth in breast, lung, and glioma tumor models. Importantly, treatment with Cabozantinib does not increase lung tumor burden in an experimental model of metastasis, which has been observed with inhibitors of VEGF signaling that do not target MET. On a body weight dosage basis, Cabozantinib plasma exposures range from 6- to 10-fold higher in rats than in mice, which accounts for lower doses inducing tumor growth inhibition/regression in rats than in mice. Subchronic administration of Cabozantinib is well tolerated in mice and rats with no signs of toxicity, as determined by stable and/or increasing body weights during the treatment period[2].



Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com