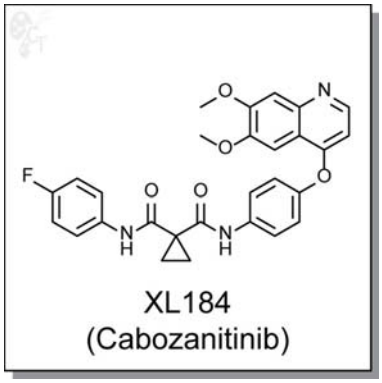
Product Specification Sheet

Product Name: XL184 (Cabozanitinib)

Catalog Number: C9518



Technical information:

Chemical Formula:	$C_{28}H_{24}FN_3O_5$
CAS #:	849217-68-1
Molecular Weight:	501.51
Purity:	> 98%
Appearance:	White
Solubility:	Soluble in DMSO up to 22 mM
Chemical Name:	N-(4-((6,7-dimethoxyquinolin-4-yl)oxy)phenyl)-N-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide
Storage:	Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.
Shelf Life:	In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.

Handling:

- To make 10 mM stock solution, add 0.199mL of DMSO for each mg of XL184 (Cabozanitinib)
- For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity:

XL184 (Cabozantinib) is an oral, small-molecule inhibitor, which has potent activity toward VEGFR2 (IC50=0.035nM) and MET (IC50 = 1.3nM), as well as a number of other receptor tyrosine kinases that have also been implicated in tumor pathobiology, including RET, KIT, AXL, and FLT3 [1].

Multiple receptor tyrosine kinases (RTKs) are sometimes activated in the same tumor. Inhibition of single RTK may lead to compensatory signaling that maintains cell growth. Targeting multiple kinases simultaneously might overcome both intrinsic and acquired resistance to antitumor drugs. XL184 has been shown to inhibit phosphorylation of MET and VEGFR2, to disrupt angiogenesis and cellular migration and invasion, and to promote tumor and endothelia cell death1. Inhibition of c-Met with XL184 blocks self-renewal capacity in pancreatic cancer stem cells (CSCs) [2]. In mouse models and preclinical studies, XL184 demonstrates robust antiangiogenic, antitumor, and anti-invasive effects, dramatically alters tumor pathology, prevents the development of metastases, and reduces tumor burden [1-3].

Reference:

1. Yakes FM, et al. Cabozantinib (XL184), a novel MET and VEGFR2 inhibitor,simultaneously suppresses metastasis, angiogenesis, and tumor growth. Mol Cancer Ther. 2011. 10(12):2298-308. Pubmed ID: 21926191
2. Herreros-Villanueva M, et al. c-Met in pancreatic cancer stem cells: Therapeutic implications. World J Gastroenterol. 2012. 18(38):5321-3. Pubmed ID: 23082047
3. Kurzrock R,et al. Activity of XL184 (Cabozantinib), an oral tyrosine kinase inhibitor, in patients with medullary thyroid cancer. J Clin Oncol. 2011. 29(19):2660-6. Pubmed ID: 21606412

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