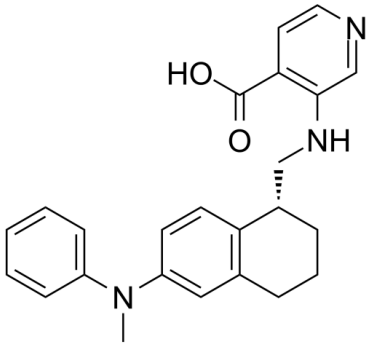
Data Sheet

Product Name:	QC6352
Cat. No.:	CS-7916
CAS No.:	1851373-36-8
Molecular Formula:	C24H25N3O2
Molecular Weight:	387.47
Target:	Histone Demethylase
Pathway:	Epigenetics
Solubility:	DMSO : ≥ 25 mg/mL (64.52 mM); H2O : < 0.1 mg/mL (insoluble)



BIOLOGICAL ACTIVITY:

QC6352 is a potent **KDM4C** inhibitor with an **IC_{50}** of 35 nM. IC50 & Target: IC50: 35 nM (KDM4C)[1] **In Vitro:** QC6352 is a potent KDM4C inhibitor with an IC_{50} of 35±8 nM[1]. In a concentration-dependent manner QC6352 dramatically reduces the anchorage-independent sphere-forming capacity of BCSC1 and BCSC2. QC6352 blocks proliferation and self-renewal of BCSCs. As shown by western blot analysis the protein levels of (Epidermal growth factor receptor) EGFR are reduced in both BCSC1 and BCSC2 upon treatment with QC6352[2]. **In Vivo:** QC6352 strongly affects tumor growth and final tumor weight of both BCSC1 and BCSC2 xenografts. Treatment with QC6352 is well tolerated and does not affect body weight of the mice. Results demonstrate that treatment with the KDM4 inhibitor QC6352 blocks BCSC xenograft tumor growth[2].

PROTOCOL (Extracted from published papers and Only for reference)

Cell Assay: QC6352 and QC6688 are dissolved in DMSO and paclitaxel in 0.9% saline solution.[2]Cells are detached by Accutase and counted. 1×10^3 single BCSC1 and BCSC2 cells are seeded as triplicates in 50% Matrigel into individual wells of 24-well ultra-low attachment plates in serum-free MSC medium. After 7 days, spheres over 50 µm diameter are counted for QC6352- and QC6688-treated and control cells and spheres over 20 µm diameter are counted for paclitaxel-treated and control cells[2]. **Animal Administration:** QC6352 is dissolved in 50% polyethylene glycol/50% DPBS with sonication until a clear solution is formed.[2]Mice: When tumors reach a palpable size of 3 mm^3, mice are treated with vehicle (control) or QC6352. The inhibitor is administered daily to mice via oral gavage at 10 mg/kg. Control animals receive vehicle only. Animals are monitored twice weekly for weight and tumor growth[2].

References:

[1]. Chen YK, et al. Design of KDM4 Inhibitors with Antiproliferative Effects in Cancer Models. ACS Med Chem Lett. 2017 Jul 27;8(8):869-874.

[2]. Metzger E, et al. KDM4 inhibition targets breast cancer stem-like cells. Cancer Res. 2017 Sep 7. pii: canres.1754.

CAIndexNames:

4-Pyridinecarboxylic acid, 3-[[[(1R)-1,2,3,4-tetrahydro-6-(methylphenylamino)-1-naphthalenyl]methyl]amino]-

SMILES:

O=C(C1=C(NC[C@@H]2CCCC3=C2C=CC(N(C)C4=CC=CC=C4)=C3)C=NC=C1)O

Caution: Product has not been fully validated for medical applications. For research use only.

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