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## Product Data Sheet

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Product Name: Amuvatinib hydrochloride (MP470 hydrochloride)

Cat. No.: GC33362

### Chemical Properties

Cas. No. 1055986-67-8

SMILES S=C(N1CCN(C2=C3OC4=CC=CC=C4C3=NC=N2)CC1)NCC5=CC=C6OCOC6=C5.[x].Cl

Formula  $C_{23}H_{21}N_5O_3S \cdot xHCl$  M.Wt

Solubility Soluble in DMSO Storage Store at  $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at  $37^{\circ}C$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^{\circ}C$  for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

### Background

Amuvatinib is a multi-targeted inhibitor of receptor tyrosine kinases that inhibits c-Kit, platelet-derived growth factor receptor  $\alpha$  (PDGFR $\alpha$ ), and c-Met (IC<sub>50</sub>s = 10, 40, and 81 nM, respectively).<sup>1</sup> It inhibits growth and induces apoptosis in prostate cancer cell lines, with additive effects achieved when combined with erlotinib.<sup>1</sup> Amuvatinib sensitizes cancer cells to radiation and chemotherapeutic compounds, in part by inhibiting homologous recombination.<sup>2,3,4</sup>

1. Qi, W., Cooke, L.S., Stejskal, A., et al. MP470, a novel receptor tyrosine kinase inhibitor, in combination with erlotinib inhibits the HER family/PI3K/Akt pathway and tumor growth in prostate cancer *BMC Cancer* 9(142)1-12(2009) 2. Padda, S., Neal, J.W., and Wakelee, H.A. MET inhibitors in combination with other therapies in non-small cell lung cancer *Transl. Lung Cancer Res.* 1(4)238-253(2012) 3. Welsh, J.W., Mahadevan, D., Ellsworth, R., et al. The c-Met receptor tyrosine kinase inhibitor MP470 radiosensitizes glioblastoma cells *Radiat. Oncol.* 4(69)(2009) 4. Zhao, H., Luoto, K.R., Meng, A.X., et al. The receptor tyrosine kinase inhibitor amuvatinib (MP470) sensitizes tumor cells to radio- and chemo-therapies in part by inhibiting homologous recombination *Radiother. Oncol.* 101(1)59-65(2011)

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

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