

# Lenvatinib Catalog No: tcsc0109

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 200mg

Size: 50mg

Size: 500mg

Size: 29

Size: 2g

**CAS No:** 417716-92-8

#### Formula:

 $\mathsf{C}_{21}\mathsf{H}_{19}\mathsf{CIN}_4\mathsf{O}_4$ 

## **Pathway:** Protein Tyrosine Kinase/RTK

## **Target:**

VEGFR

#### Purity / Grade:

>98%

## Solubility:

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DMSO : 40 mg/mL (93.71 mM; Need ultrasonic)

#### **Alternative Names:**

E7080

#### **Observed Molecular Weight:**

426.85

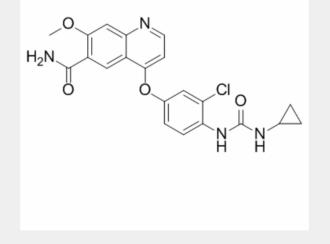
# **Product Description**

Lenvatinib is an orally active, multi-target inhibitor, mostly for **VEGFR2(KDR)**/**VEGFR3(FIt-4)** with **IC**<sub>50</sub> of 4 nM/5.2 nM, and less potent against VEGFR1/FIt-1, and approximately 10-fold more selective for VEGFR2/3 against FGFR1, PDGFR $\alpha/\beta$ .

IC50 & Target: IC50: 4 nM (VEGFR2), 5.2 nM (VEGFR3)<sup>[1]</sup>

*In Vitro:* Lenvatinib inhibits KIT kinase with an IC<sub>50</sub> value of 100 nM. lenvatinib inhibits SCF- and VEGF-induced tube formation in a dose-dependent manner with IC<sub>50</sub> values of 5.2 and 5.1 nM, respectively. Lenvatinib inhibits SCF-induced proliferation of another human SCLC, H526 cells, which expresses KIT, at the concentrations required for the inhibition of KIT kinase. The IC<sub>50</sub> values of Lenvatinib against phosphorylation of KDR and KIT in HUVEC are about 500 times lower than those against H146 proliferation in vitro <sup>[1]</sup>. Lenvatinib inhibits both angiogenesis and lymphangiogenesis induced by human breast cancer cells, and significantly inhibits tumor growth of MDA-MB-231. Lenvatinib and bevacizumab treatment decreases MVD by almost the same extent<sup>[2]</sup>. Lenvatinib inhibits proliferation at high concentrations (mean IC<sub>50</sub>s 23.6-44.17  $\mu$ M) in the majority of the cell lines, while the IC<sub>50</sub> in the KM12C colon cancer cell line is 9.54  $\mu$ M<sup>[3]</sup>.

*In Vivo:* Lenvatinib inhibits the growth of H146 tumor at 30 and 100 mg/kg (BID, QDx21) in a dose-dependent manner and causes tumor regression at 100 mg/kg in H146 xenograft model. IHC analysis with anti-CD31 antibody shows that lenvatinib at 100 mg/kg decreases microvessel density more than anti-VEGF antibody and imatinib treatment<sup>[1]</sup>. lenvatinib (100 mg/kg, p.o.) is administeredand bevacizumab significantly inhibits local tumor growth at the m.f.p., and at the end of treatment, lenvatinib also significantly inhibits metastasis to both regional lymph nodes and distant lung<sup>[2]</sup>.



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