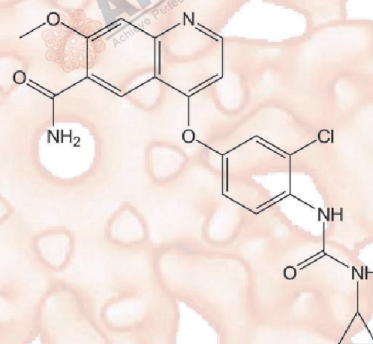


Product Data Sheet

Lenvatinib (E7080)

Cat. No.:	A2174
CAS No.:	417716-92-8
Formula:	C ₂₁ H ₁₉ CIN ₄ O ₄
M.Wt:	426.85
Synonyms:	
Target:	Tyrosine Kinase
Pathway:	VEGFR
Storage:	Store at -20°C



Solvent & Solubility

≥21.35 mg/mL in DMSO; insoluble in EtOH; insoluble in H₂O

In Vitro	Preparing Stock Solutions	Mass			
		Solvent	1mg	5mg	10mg
		Concentration			
		1 mM	2.3427 mL	11.7137 mL	23.4274 mL
		5 mM	0.4685 mL	2.3427 mL	4.6855 mL
		10 mM	0.2343 mL	1.1714 mL	2.3427 mL

Please refer to the solubility information to select the appropriate solvent

Biological Activity

Shortsummary	VEGFR inhibitor	
IC ₅₀ & Target	22 nM (VEGFR-1), 4 nM (VEGFR-2), 5.2 nM (VEGFR-3), 39 nM (PDGFRβ), 35 nM (RET)	
In Vitro	Cell Viability Assay	
	Cell Line:	HUVECs
	Preparation method:	The solubility of this compound in DMSO is > 21.4 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months.
	Reacting conditions:	0 ~ 10 μM; 72 hrs

	Applications:	In HUVECs stimulated with VEGF and VEGF-C, Lenvatinib strongly inhibited VEGF-R2 and VEGF-R3 with the IC50 values of 0.83 nM and 0.36 nM, respectively. In addition, E7080 showed stronger inhibitory activity against VEGF-induced proliferation of HUVECs (IC50 = 2.7 nmol/L) than basic FGF-induced proliferation of HUVECs (IC50 = 410 nM) and PDGF-induced proliferation of L cells (IC50 = 340 nM).
In Vivo	Animal experiment	
	Animal models:	Nude mice bearing MDA-MB-231 cells
	Dosage form:	100 mg/kg; p.o.; q.d., for 8 weeks
	Applications:	In nude mice bearing MDA-MB-231 cells, E7080 significantly inhibited tumor growth, with a RTV value of 0.81 ± 1.00 . E7080 also markedly inhibited metastasis to regional lymph nodes and distant lung. In addition, E7080 reduced angiogenesis and lymphangiogenesis within metastatic nodules in lymph nodes of MDA-MB-231 xenograft models.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Matsui J, Funahashi Y, Uenaka T, Watanabe T, Tsuruoka A, Asada M. Multi-kinase inhibitor E7080 suppresses lymph node and lung metastases of human mammary breast tumor MDA-MB-231 via inhibition of vascular endothelial growth factor-receptor (VEGF-R) 2 and VEGF-R3 kinase. Clin Cancer Res. 2008 Sep 1;14(17):5459-65.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



APExBIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com

