产品名称：**KRN 633**
产品别名：**KRN-633**

生物活性：

Description	KRN-633 is a potent VEGFR inhibitor with IC_{50}s of 170, 160 and 125 nM for VEGFR1, VEGFR2 and VEGFR3, respectively.		
IC_{50} & Target	VEGFR1	VEGFR2	VEGFR3
	170 nM (IC_{50})	160 nM (IC_{50})	125 nM (IC_{50})
In Vitro	KRN-633 inhibits tyrosine phosphorylation of VEGFR-1, VEGFR2, c-Kit, and PDGFR-β (IC50=11.7, 1.16, 8.01, 130 nM) in human umbilical vein endothelial cells. KRN-633 also inhibits the VEGF-driven proliferation of HUVECs (IC50=14.9 nM). KRN-633 suppresses capillary tube formation of endothelial cells[1].		
In Vivo	KRN-633 inhibits tumor growth in several tumor xenograft models with diverse tissue origins, including lung, colon, and prostate, in athymic mice and rats. KRN-633 also causes the regression of some well-established tumors and those that have regrown after the cessation of treatment. KRN-633 is well tolerated and has no significant effects on body weight or the general health of the animals. Histologic analysis of tumor xenografts treated with KRN-633 reveals a reduction in the number of endothelial cells in non-necrotic areas and a decrease in vascular permeability[1].		

Solvent&Solubility

In Vitro:

DMSO : ≥ 8 mg/mL (19.19 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3989 mL	11.9944 mL	23.9889 mL
	5 mM	0.4798 mL	2.3989 mL	4.7978 mL
	10 mM	0.2399 mL	1.1994 mL	2.3989 mL

*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。

储备液的保存方式和期限：-80°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。

References

[1]. Nakamura K, et al. KRN633: A selective inhibitor of vascular endothelial growth factor receptor-2 tyrosine kinase that suppresses tumor angiogenesis and growth. Mol Cancer Ther. 2004 Dec;3(12):1639-49.

实验参考：

Cell Assay	A549, Ls174T, HT29, DU145, LNCap, and PC-3 cells cancer cells are cultured for 24 hours before adding KRN-633 (0.01 to 10 μM) or vehicle (0.1% DMSO in medium) and then grow for a further 96 hours. Cell viability is measured using WST-1 reagent. The percentage viability is determined relative to the untreated control[1].
	Rats: Human tumor xenografts are established in the hind flank of athymic rats (BALB/cA, Jcl-nu). Rats are randomized into groups of five at the point when the tumors reach the average size indicated (162 to 657 mm3) and are then treated with KRN-633 or vehicle, either once (qd) or twice (bid) per day, at the dosages shown. The percentage of tumor growth inhibition compared with the

Animal Administration	vehicle-treated group is calculated on the day after the last treatment (day 14)[1]. Mice: The mice are randomized into groups of five at the point when the tumors reached the average sizes: 103 to 260 mm3 or 500 to 667 mm3. They are then treated with KRN-633 or vehicle, either once (qd) or twice (bid) per day, at the dosages of 10-100 mg/kg. The percentage of tumor growth inhibition (TGI) compared with the vehicle-treated group is calculated on the day after the last treatment[1].
Kinase Assay	Cell-free kinase assays are done to obtain IC50 values against a variety of recombinant receptor and non-RTKs. KRN-633 is tested from 0.3 nM to 10 μM. All assays are done in quadruplicate with 1 μM ATP[1].
References	[1]. Nakamura K, et al. KRN633: A selective inhibitor of vascular endothelial growth factor receptor-2 tyrosine kinase that suppresses tumor angiogenesis and growth. Mol Cancer Ther. 2004 Dec;3(12):1639-49.