产品名称：TSU-68 (SU6668, Orantinib)
产品别名：Orantinib

生物活性：

Description	Orantinib (SU6668; TSU-68) is a multi-targeted receptor tyrosine kinase inhibitor with Kis of 2.1 μM, 8 nM and 1.2 μM for Flt-1, PDGFRβ and FGFR1, respectively.		
IC_{50} & Target	PDGFRβ	FGFR1	Flt-1
	8 nM (Ki)	1.2 μM (Ki)	2.1 μM (Ki)
In Vitro	Orantinib (SU6668; 0.03-10 μM) shows inhibitory activity against tyrosine phosphorylation of KDR in VEGF stimulated HUVECs, and also blocks PDGF-stimulated PDGFR β tyrosine phosphorylation in NIH-3T3 cells overexpressing PDGFR β. Orantinib (≥ 10 μM) inhibits acidic FGF-induced phosphorylation of the FGFR1 substrate 2. However, Orantinib (up to 100 μM) has no effect on EGF-stimulated EGFR tyrosine phosphorylation in NIH-3T3 cells overexpressing EGFR. Furthermore, Orantinib inhibits VEGF-driven and FGF-driven mitogenesis of HUVECs with mean IC50 of 0.34 μM and 9.6 μM, respectively[1]. In human myeloid leukemia MO7E cells, Orantinib (SU6668) inhibits the tyrosine autophosphorylation of stem cell factor (SCF) receptor, c-kit, with IC50 of 0.1-1 μM, as well as ERK1/2 phosphorylation. In addition, Orantinib suppresses SCF-induced proliferation of MO7E cells with an IC50 of 0.29 μM, and induces apoptosis[2].		
In Vivo	Orantinib (SU6668; 75-200 mg/kg) causes tumor growth inhibition on several tumor types in xenograft models in athymic mice, such as A375, Colo205, H460, Calu-6, C6, SF763T, and SKOV3TP5 cells. Orantinib (75 mg/kg) also inhibits tumor angiogenesis of C6 glioma xenografts[1]. In a tumor model of HT29 human colon carcinoma, Orantinib (200 mg/kg) decreases the average vessel permeability and average fractional plasma volume in the tumor rim and core. Orantinib enhances abnormal stromal development at the periphery of carcinomas[3]. Moreover, Orantinib (TSU-68; 200 mg/kg) augments the effect of chemotherapeutic infusion in a rabbit VX2 liver tumor model[4].		
Solvent&Solubility	***In Vitro:*** **DMSO : ≥ 28 mg/mL (90.22 mM)** * "≥" means soluble, but saturation unknown.		

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.2222 mL	16.1108 mL	32.2217 mL
	5 mM	0.6444 mL	3.2222 mL	6.4443 mL
	10 mM	0.3222 mL	1.6111 mL	3.2222 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。

In Vivo:

请根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都请先按照 **In Vitro** 方式配制澄清的储备液，再依次添加助溶剂：

——为保证实验结果的可靠性，澄清的储备液可以根据储存条件，适当保存；体内实验的工作液，建议您现用现配，当天使用； 以下溶剂前显示的百分比是指该溶剂在您配制终溶液中的体积占比；如在配制过程中出现沉淀、析出现象，可以通过加热和/或超声的方式助溶

	1.请依序添加每种溶剂： 10% DMSO→40% PEG300 →5% Tween-80 → 45% saline Solubility: ≥ 10 mg/mL (32.22 mM); Clear solution 此方案可获得 ≥ 10 mg/mL (32.22 mM，饱和度未知) 的澄清溶液。 以 1 mL 工作液为例，取 100 μL 100.0 mg/mL 的澄清 DMSO 储备液加到 400 μL PEG300 中，混合均匀；向上述体系中加入 50 μL Tween-80，混合均匀；然后继续加入 450 μL 生理盐水定容至 1 mL。
References	[1]. Laird AD, et al. SU6668 is a potent antiangiogenic and antitumor agent that induces regression of established tumors. Cancer Res, 2000, 60(15), 4152-4160. [2]. Smolich BD, et al. The antiangiogenic protein kinase inhibitors SU5416 and SU6668 inhibit the SCF receptor (c-kit) in a human myeloid leukemia cell line and in acute myeloid leukemia blasts. Blood, 2001, 97(5), 1413-1421. [3]. Marzola P, et al. In vivo assessment of antiangiogenic activity of SU6668 in an experimental colon carcinoma model. Clin Cancer Res, 2004, 10(2), 739-750. [4]. Kim HC, et al. Augmentation of chemotherapeutic infusion effect by TSU-68, an oral targeted antiangiogenic agent, in a rabbit VX2 liver tumor model. Cardiovasc Intervent Radiol. 2012 Feb;35(1):168-75

源叶生物