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产品名称：Tenalisib
产品别名：RP6530

生物活性：

Description	Tenalisib (RP6530) is a novel, potent, and selective PI3Kδ and PI3Kγ inhibitor with IC_{50} values of 25 and 33 nM, respectively.	
IC_{50} & Target	PI3Kδ	PI3Kγ
	25 nM (IC_{50})	33 nM (IC_{50})
In Vitro	Tenalisib shows selectivity over PI3K α (>300-fold) and β (>100-fold) isoforms. Tenalisib exhibits modest proliferation inhibition (33-46% inhibition @ 10 μM) in both HEL-RS and HEL-RR cells. Addition of 10 μM tenalisib to ruxolitinib is synergistic resulting in a near-complete inhibition of proliferation (>90% for HEL-RS and >70% for HEL-RR). Addition of 5 μM tenalisib, 4 h prior to the addition of ruxolitinib results in a significant reduction in $EC_{50}$of ruxolitinib (5.8 μM) in HEL-RR cells. Incubation of 10 μM tenalisib with ruxolitinib for 72 h increases the percent of apoptotic cells (55% in HEL-RS and 37% in HEL-RR) compared to either agent alone (16-27% in HEL-RS and 17-21% in HEL-RR)[1].	
In Vivo	Tenalisib has been well tolerated in subjects with heavily pre-treated relapsed/refractory hematologic malignancies. Reported toxicities are manageable with no DLTs. Single agent activity is evident in difficult-to-treat subjects at ≥ 200 mg BID[2].	

Solvent&Solubility

In Vitro:

DMSO : ≥ 100 mg/mL (240.72 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4072 mL	12.0360 mL	24.0720 mL
	5 mM	0.4814 mL	2.4072 mL	4.8144 mL
	10 mM	0.2407 mL	1.2036 mL	2.4072 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: ≥ 2.5 mg/mL (6.02 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (6.02 mM，饱和度未知) 的澄清溶液。

以 1 mL 工作液为例，取 100 μL 25.0 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。

	2.请依序添加每种溶剂： 10% DMSO→ 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.02 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (6.02 mM，饱和度未知) 的澄清溶液。 以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 20% 的 SBE-β-CD 生理盐水水溶液中，混合均匀。 3.请依序添加每种溶剂： 10% DMSO →90% corn oil Solubility: ≥ 2.5 mg/mL (6.02 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (6.02 mM，饱和度未知) 的澄清溶液，此方案不适用于实验周期在半个月以上的实验。 以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中，混合均匀。
References	[1]. Vakkalanka S, et al. RP6530, a dual PI3K δ/γ inhibitor, potentiates ruxolitinib activity in the JAK2-V617F mutant erythroleukemia cell lines. [abstract]. In: Proceedings of the 106th Annual Meeting of the American Association for Cancer Research; 2015 Apr 18-22; Philadelphia, PA. Philadelphia (PA): AACR; Cancer Res 2015;75(15 Suppl):Abstract nr 2704. doi:10.1158/1538-7445.AM2015-2704 [2]. Carmelo C, et al. A Dose Escalation Study of RP6530, a Novel Dual PI3K Delta/Gamma Inhibitor, in Patients with Relapsed/Refractory Hematologic Malignancies. Blood 2015 126:1495;