产品名称：RG7388
产品别名：Idasanutlin

生物活性：

Description	Idasanutlin (RG7388) is a potent and selective **MDM2** antagonist, inhibiting p53-MDM2 binding, with an **IC_{50}** of 6 nM.
IC_{50} & Target	IC50: 6 nM (p53-MDM2)[1]
In Vitro	Idasanutlin (RG7388) inhibits cell proliferation with IC50 of 30 nM, and induces dose-dependent p53 stabilization, cell cycle arrest, as well as cell apoptosis in cancer cells expressing wild-type p53[1]. Idasanutlin (RG7388) (300 nM or 1.8 μM) induces apoptosis in SJSA osteosarcoma cells[2].
In Vivo	Idasanutlin (RG7388, 25 mg/kg p.o.) results in tumor growth inhibition and regression, in the mouse SJSA human osteosarcoma xenograft model[1]. Idasanutlin (RG7388) induces induction of apoptosis and antiproliferation, in the SJSA xenograft model[2].
Solvent&Solubility	***In Vitro:*** **DMSO : ≥ 45 mg/mL (73.00 mM)** * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.6221 mL	8.1106 mL	16.2211 mL
	5 mM	0.3244 mL	1.6221 mL	3.2442 mL
	10 mM	0.1622 mL	0.8111 mL	1.6221 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→ 90% corn oil

Solubility: ≥ 2.5 mg/mL (4.06 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (4.06 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]. Ding Q, et al. Discovery of RG7388, a potent and selective p53-MDM2 inhibitor in clinical development. J Med Chem. 2013 Jul 25;56(14):5979-83. [2]. Higgins B, et al. Preclinical optimization of MDM2 antagonist scheduling for cancer treatment by using a model-based approach. Clin Cancer Res. 2014, 20(14), 3742-3752.

实验参考：

	Cell proliferation is evaluated by the tetrazolium dye assay. The concentration at which 50%

Cell Assay	inhibition (IC_{50}) or 90% inhibition (IC_{90}) of cell proliferation is determined from the linear regression of a plot of the logarithm of the concentration versus percent inhibition. [1]
Animal Administration	At 10 to 12 weeks of age, mice are implanted with a 1:1 mixture of human SJSA osteosarcoma cells (ATCC) suspended in phenol-free Matrigel and PBS. Mice are implanted in the right flank at a concentration of 5×10^6 cells in 0.2 mL total volume. At approximately day 10, animals are randomized according to tumor volume, so that all groups of 10 randomized mice have similar starting mean tumor volumes of 100 to 250 mm^3. Idasanutlin (RG7388) is administered as an amorphous solid dispersion microbulk precipitate powder containing 30% drug substance and 70% hydroxypropyl methylcellulose acetate succinate polymer that is reconstituted immediately before administration as a suspension in Klucel/Tween, and remaining suspension is discarded after dosing. [2]
References	[1]. Ding Q, et al. Discovery of RG7388, a potent and selective p53-MDM2 inhibitor in clinical development. J Med Chem. 2013 Jul 25;56(14):5979-83. [2]. Higgins B, et al. Preclinical optimization of MDM2 antagonist scheduling for cancer treatment by using a model-based approach. Clin Cancer Res. 2014, 20(14), 3742-3752.