产品名称：IWR-1-endo
产品别名：IWR-1

生物活性：

Description	IWR-1 is a tankyrase inhibitor which inhibits Wnt/β-catenin signaling pathway.
IC_{50} & Target	IC50: 180 nM (Wnt)
In Vitro	Both IWR-1 and XAV939 act as reversible Wnt pathway inhibitors and exhibit similar pharmacological effects in vitro. IWR-1 exerts its effect via interaction with Axin, while XAV939 binds TNKS directly[1]. IWR-1 (10 μM) induces stabilization of β-catenin disruption complex. IWR-1 (10 μM) is added to the medium together with MIF, the size of cell colonies is extremely decreased, and that indicates the promoting effect of MIF on NSPC proliferation is inhibited by IWR-1 in any MIF concentration group. 2, 5 and 10 μM of IWR-1 significantly inhibits the proliferation of NSPC dose-dependently. IWR-1 inhibites the promoting effect of MIF on NSPC differentiation to neuron lineage[2]. IWR-1 treatment in the presence of maximal stimulatory dose of FSH (0.5 ng/mL) results in a dose dependent inhibition of the stimulatory effect of FSH with > 75% inhibition observed at the maximal inhibitory dose of IWR-1 (1 μM). IWR-1 treatment partially reverses the FSH-induced inhibition of granulosa cell CARTPT mRNA expression[3].
Solvent&Solubility	***In Vitro:*** **DMSO : ≥ 46 mg/mL (112.35 mM)** * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4424 mL	12.2118 mL	24.4236 mL
	5 mM	0.4885 mL	2.4424 mL	4.8847 mL
	10 mM	0.2442 mL	1.2212 mL	2.4424 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 (6.11 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL(6.11 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 (6.11 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (6.11 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 (6.11 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL(6.11 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]. Lu J, et al. Structure-activity relationship studies of small-molecule inhibitors of Wnt response. Bioorg Med Chem Lett. 2009 Jul 15;19(14):3825-7. [2]. Zhang X, et al. Macrophage migration inhibitory factor promotes proliferation and neuronal differentiation of neural stem/precursor cells through Wnt/β-catenin signal pathway. Int J Biol Sci. 2013 Nov 28;9(10):1108-20. [3]. Gupta PS, et al. Regulation and Regulatory Role of WNT Signaling in Potentiating FSH Action during Bovine Dominant Follicle Selection. PLoS One. 2014 Jun 17;9(6):e100201.