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产品名称：iCRT-14
产品别名：iCRT 14

生物活性：

Description	iCRT 14 is a novel potent inhibitor of β-catenin-responsive transcription (CRT), with IC_{50} of 40.3 nM against Wnt responsive STF16 luciferase.
IC_{50} & Target	IC50: 40.3 nM (Wnt responsive STF16 luciferase)[1]
In Vitro	iCRT14 can interfere with TCF binding to DNA in addition to its ability to influence TCF-β-cat interaction[1]. iCRT14 (10, 25, 50 μM) effectively inhibits cell proliferation in BT-549 cells in a dose- and time-dependent manner, but still less potent than iCRT3[2].
In Vivo	iCRT14 (50 mg/kg, i.p.) markedly decreases CycD1, proliferation of the tumors in HCT116 xenografts[1].

Solvent&Solubility

In Vitro:

DMSO : ≥ 29 mg/mL (77.24 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6635 mL	13.3177 mL	26.6354 mL
	5 mM	0.5327 mL	2.6635 mL	5.3271 mL
	10 mM	0.2664 mL	1.3318 mL	2.6635 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 (6.66 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (6.66 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。

References

[1]. Gonsalves FC, et al. An RNAi-based chemical genetic screen identifies three small-molecule inhibitors of the Wnt/wingless signaling pathway. Proc Natl Acad Sci USA. 2011 Apr 12;108(15):5954-63.

[2]. Bilir B, et al. Wnt signaling blockage inhibits cell proliferation and migration, and induces apoptosis in triple-negative breast cancer cells. J Transl Med. 2013 Nov 4;11:280.

实验参考：

Cells are seeded at 20,000 cells/well into 96-well plates. After overnight incubation, cells are treated with

Cell Assay	DMSO or each Wnt inhibitor (iCRT-3, 75 μM; iCRT-5, 200 μM; iCRT-14, 50 μM; IWP-4, 5 μM and XAV-939, 10 μM) for 48 hours. Cell viability is determined using the Cell Titer-Glo luminescent cell viability assay kit. Luminescence is measured using FLUOstar microplate reader. All treatments are performed in triplicate, and each experiment is repeated three times. [2]
References	[1]. Gonsalves FC, et al. An RNAi-based chemical genetic screen identifies three small-molecule inhibitors of the Wnt/wingless signaling pathway. Proc Natl Acad Sci USA. 2011 Apr 12;108(15):5954-63. [2]. Bilir B, et al. Wnt signaling blockage inhibits cell proliferation and migration, and induces apoptosis in triple-negative breast cancer cells. J Transl Med. 2013 Nov 4;11:280.