产品名称：**IM-12**
产品别名：**IM-12**

生物活性：

Description	M-12 is an inhibitor of GSK-3β, with an IC_{50} of 53 nM, and also enhances Wnt signalling.
IC_{50} & Target	GSK-3β
	53 nM (IC_{50})
In Vitro	IM-12 inhibits GSK-3β in ReNcell VM cells, with I50 of 3.8 μM. IM-12 (3 μM) enhances the β-catenin amount, with no further effect at lower or higher concentration. IM-12 (3 μM) also attenuates the proliferation of ReNCell VM cells. IM-12 increases TCF-activity of ReNcell VM[1].
Solvent&Solubility	***In Vitro:*** **DMSO : ≥ 54.9 mg/mL (145.47 mM)** * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6496 mL	13.2482 mL	26.4964 mL
	5 mM	0.5299 mL	2.6496 mL	5.2993 mL
	10 mM	0.2650 mL	1.3248 mL	2.6496 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 (6.62 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (6.62 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]. Schmole AC, et al. Novel indolylmaleimide acts as GSK-3beta inhibitor in human neural progenitor cells. Bioorg Med Chem. 2010 Sep 15;18(18):6785-95.

实验参考：

Cell Assay	To measure viable cells, 50-100 μL of cell suspension is analyzed using CASY technology with the appropriate program. ReNcell VM cells are seeded at a defined cell number and proliferated for 24 h. Then the medium is changed to proliferation medium with added substances at indicated concentrations. The cell number is determined every 24 h. Cells are exposed to the added drugs during the whole experiment, whereas the media is changed every 24 h[1].
	Cells are lysed in RIPA buffer, supplemented with protease and phosphatase inhibitors and

Kinase Assay	centrifuged for 5 min at 15,000 rpm. Immunoprecipitation of GSK-3β is performed with a specific mouse monoclonal anti GSK-3β [G8] antibody with 5 µg/sample for 2 h at 4°C. The bound protein is precipitated with Protein A/G-Plus agarose-beads (10 µL beads per sample). GSK-3β kinase activity is measured in a reaction mixture containing final concentrations of: 4 mM MOPS pH 7.2; 0.4 mM EDTA; 1 mM EGTA; 2.5 mM β-glycerophosphate; 4 mM MgCl2; 40 µM BSA; 0.05 mM DTT. 10 µg/sample pGS-2 peptide substrate is used[1].
References	[1]. Schmole AC, et al. Novel indolylmaleimide acts as GSK-3beta inhibitor in human neural progenitor cells. Bioorg Med Chem. 2010 Sep 15;18(18):6785-95.