

产品名称: **WS6**

产品别名: **WS6**

生物活性:

Description

WS6 is a novel small molecule that promotes  $\beta$  cell proliferation in rodent and human primary islets with EC50 of 0.28  $\mu$ M(R7T1 cell viability). EC50 value: 0.28  $\mu$ M [1] Target:  $\beta$  cell proliferation agonist in vitro: WS6 induced up to 4% of rat  $\beta$  cells to proliferate, with an EC50 of 0.4  $\mu$ M. In the same format, WS6 also induced 3% of human  $\beta$  cells to proliferate, with a similar potency to the rat  $\beta$  cells. WS6 induced R7T1 proliferation in dose response, with EC50 value of 0.28  $\mu$ M, Proliferation of R7T1 cells, which are cultured in suspension and grow as clusters, was apparent by visible inspection. in vivo: RIP-DTA mice were fed Dox in the drinking water until the onset of overt diabetes (blood glucose reading >300 mg/dL, typically 4-10 days), at which point Dox treatment was discontinued and treatment with WS6 was initiated (5 mg/kg every other day via intraperitoneal injection). Pharmacokinetic studies with WS6 at 50 mg/kg revealed a CMAX of  $\sim$ 5  $\mu$ M and T1/2 of  $\sim$ 2 h. Treatment with WS6 caused a progressive reduction of blood glucose over time, starting around 2 weeks.

***In Vitro:***

**DMSO :  $\geq$  100 mg/mL (175.87 mM)**

\* " $\geq$ " means soluble, but saturation unknown.

	Solvent	Mass	1 mg	5 mg	10 mg
	Concentration				
Preparing	1 mM		1.7587 mL	8.7937 mL	17.5874 mL
Stock Solutions	5 mM		0.3517 mL	1.7587 mL	3.5175 mL
	10 mM		0.1759 mL	0.8794 mL	1.7587 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:  $\geq$  2.5 mg/mL (4.40 mM); Clear solution

此方案可获得  $\geq$  2.5 mg/mL (4.40 mM，饱和度未知) 的澄清溶液。

以 1 mL 工作液为例，取 100  $\mu$ L 25.0 mg/mL 的澄清 DMSO 储备液加到 400  $\mu$ L PEG300 中，混合均匀，向上述体系中加入 50  $\mu$ L Tween-80，混合均匀；然后继续加入 450  $\mu$ L 生理盐水定容至 1 mL。

2.请依序添加每种溶剂： 10% DMSO→ 90% (20% SBE- $\beta$ -CD in saline)

Solubility:  $\geq$  2.5 mg/mL (4.40 mM); Clear solution

此方案可获得  $\geq$  2.5 mg/mL (4.40 mM，饱和度未知) 的澄清溶液。

以 1 mL 工作液为例，取 100  $\mu$ L 25.0 mg/mL 的澄清 DMSO 储备液加到 900  $\mu$ L 20% 的 SBE- $\beta$ -CD 生理盐水水溶液中，混合均匀。

	<p>3.请依序添加每种溶剂： 10% DMSO →90% corn oil</p> <p>Solubility: <math>\geq 2.5</math> mg/mL (4.40 mM); Clear solution</p> <p>此方案可获得 <math>\geq 2.5</math> mg/mL (4.40 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。</p> <p>以 1 mL 工作液为例，取 100 <math>\mu</math>L 25.0 mg/mL 的澄清 DMSO 储备液加到 900 <math>\mu</math>L 玉米油中，混合均匀。</p>
References	<p>[1]. <u>Shen W, et al. Small-molecule inducer of <math>\beta</math> cell proliferation identified by high-throughput screening. J Am Chem Soc. 2013 Feb 6;135(5):1669-72.</u></p>



源叶生物