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产品名称: **Cytosporone B**
产品别名: **Csn-B; Dothiorelone G**

生物活性:				
Description	Cytosporone B (Csn-B; Dothiorelone G) is a naturally occurring nuclear orphan receptor Nur77/NR4A1 agonist with an EC50 of 0.278 nM.			
IC ₅₀ & Target	EC50: 0.278 nM (Nur77)[1]			
In Vitro	Cytosporone B targets the ligand binding domain of Nur77, which selectively stimulates the transactivational activity of Nur77. Cytosporone B induces luciferase activity in cells that are cotransfected with GAL4- Nur77 or GAL4-LBD. The EC50 of cytosporone B for Nur77 is 0.278 nM. Cytosporone B displays robust pro-apoptotic activity in gastric cancer cells BGC-823. 63.5% of the cells are apoptotic when treated with cytosporone B for 48 h. Cytosporone B shows selective effect on cancerous cells. Cytosporone B inhibits proliferation of human gastric cancer BGC-823 cells and human colon cancer SW620 cells by 470%, but it has a modest effect on human lung cancer H1299 cells and human hepatoma HepG2 cells[1].			
In Vivo	In the hepatocytes of wild-type mice, the transcriptional activity of the reporter is induced five-fold with cytosporone B treatment. In wild-type mice, cytosporone B treatment significantly increases glucose levels from 3.2 to 11.4 mM within the first 30 min, and thereafter blood glucose gradually decreased before reaching the initial level after 300 min[1].			
Solvent&Solubility	In Vitro: DMSO : ≥ 100 mg/mL (310.17 mM) * "≥" means soluble, but saturation unknown.			
	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg
		1 mM	3.1017 mL	15.5087 mL
		5 mM	0.6203 mL	3.1017 mL
		10 mM	0.3102 mL	1.5509 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℃，6 months；-20℃，1 month。-80℃ 储存时，请在 6 个月内使用，-20℃ 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 (7.75 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (7.75 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。			



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	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 $\rightarrow$ 90% (20% SBE-β-CD in saline) Solubility: $\geq$ 2.5 mg/mL (7.75 mM); Clear solution 此方案可获得 $\geq$ 2.5 mg/mL (7.75 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。
References	[1]. Zhan Y, et al. Cytosporone B is an agonist for nuclear orphan receptor Nur77. Nat Chem Biol. 2008 Sep;4(9):548-56.
实验参考:	
Cell Assay	Human gastric cancer BGC-823 cells and human colon cancer SW620 cells are treated with cytosporone B for 72 h at 0-15 μ g/mL. Cell viability is measured using the MTT assay[1].
Animal Administration	Mice: The inoculated mice are randomly separated into two groups. One group is given an injection to the abdominal cavity at a dosage of 13 mg/kg of cytosporone B twice a week. The other group is administered with DMSO without cytosporone B. Food consumption and body weight of nude mice are monitored weekly. Four weeks later, the nude mice are killed and the tumors formed are removed, fixed and embedded[1].
References	[1]. Zhan Y, et al. Cytosporone B is an agonist for nuclear orphan receptor Nur77. Nat Chem Biol. 2008 Sep;4(9):548-56.

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