

产品名称: **T0901317**

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生物活性:		
Description	T0901317 is a potent and selective agonist for LXR and FXR, with EC50s of 50 nM and 5 μM, respectively[1,2]. T0901317 induces its anti-proliferative and cytotoxic effects via an LXR-independent mechanism. T0901317 significantly suppresses cell proliferation and induces programmed cell death in a dose- and time-dependent manner[3]. T0901317 can protect mice from high fat diet-induced obesity and insulin resistance[4].	
IC ₅₀ & Target	FXR, LXR[1,2]	
In Vitro	T0901317 (5-50 μM; 72 hours) significantly inhibits cellular proliferation in all cell lines in a dose-dependent and time-dependent manner[3].	
	T0901317 (10 μM; 24-72 hours) decreases the percentage of cells in S phase and increases the percentage of cells in the G0/G1 phase, indicating a cell cycle arrest at the G1-S checkpoint. The percentage of cells in G0/G1 phase increases in a time-dependent manner[3].	
	T0901317 (10-40 μM; 24 hours) results in a significant increase of cells in early apoptosis[3].	
	T0901317 (5-40 μM; 48 hours) results in an increase of p21 and p27 protein expression in a dose-dependent manner after 48 hours[3].	
	Cell Proliferation Assay[3]	
	Cell Line:	A2780, CaOV3 and SKOV3 ovarian cancer cell lines
	Concentration:	5, 10, 20, 40 or 50 μM
	Incubation Time:	72 hours
	Result:	Inhibited cellular proliferation in all cell lines in a dose-dependent and time-dependent manner.
	Cell Cycle Analysis[3]	
	Cell Line:	A2780, CaOV3 and SKOV3 cells
	Concentration:	10 μM
	Incubation Time:	24, 48 or 72 hours
	Result:	Decreased the percentage of cells in S phase and increased the percentage of cells in the G0/G1 phase.
	Apoptosis Analysis[3]	
	Cell Line:	CaOV3 cells
	Concentration:	10 to 40 μM
	Incubation Time:	24 hours
	Result:	Resulted in a significant increase of cells in early apoptosis.
Western Blot Analysis[3]		
Cell Line:	CaOV3 cells	
Concentration:	5 to 40 μM	
Incubation Time:	48 hours	
Result:	Resulted in an increase of p21 and p27 protein expression in a dose-dependent manner.	
T0901317 (i.p.; 50 mg/kg; twice weekly for 7 days) significantly slows down the weight gain of C57/BL6 mice[4] .		

In Vivo	Animal Model:	Male C57BL/6 mice[4]			
	Dosage:	50 mg/kg			
	Administration:	I.p.; twice weekly; for 7 days			
	Result:	Slowed down the weight gain of C57/BL6 mice.			
Solvent&Solubility	In Vitro: DMSO : ≥ 100 mg/mL (207.76 mM) Methanol : ≥ 100 mg/mL (207.76 mM) * "≥" means soluble, but saturation unknown.				
	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
		1 mM	2.0776 mL	10.3879 mL	20.7758 mL
		5 mM	0.4155 mL	2.0776 mL	4.1552 mL
		10 mM	0.2078 mL	1.0388 mL	2.0776 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: ≥ 3 mg/mL (6.23 mM); Clear solution 此方案可获得 ≥ 3 mg/mL (6.23 mM，饱和度未知) 的澄清溶液。 以 1 mL 工作液为例，取 100 μL 30.0 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: ≥ 3 mg/mL (6.23 mM); Clear solution 此方案可获得 ≥ 3 mg/mL (6.23 mM，饱和度未知) 的澄清溶液。 以 1 mL 工作液为例，取 100 μL 30.0 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: ≥ 3 mg/mL (6.23 mM); Clear solution 此方案可获得 ≥ 3 mg/mL (6.23 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 30.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中，混合均匀。				
	[1]. Ding H et al. LXR agonist T0901317 upregulates thrombomodulin expression in glomerular endothelial cells by inhibition of nuclear factor?κB. Mol Med Rep. 2016 Jun;13(6):4888-96				

References

- [2]. Rough JJ, et al. Anti-proliferative effect of LXR agonist T0901317 in ovarian carcinoma cells. J Ovarian Res. 2010 May 26;3:13.
- [3]. Baranowski M et al. Insulin-sensitizing effect of LXR agonist T0901317 in high-fat fed rats is associated with restored muscle GLUT4 expression and insulin-stimulated AS160 phosphorylation. Cell Physiol Biochem. 2014;33(4):1047-5
- [4]. Gao M, et al. The liver X receptor agonist T0901317 protects mice from high fat diet-induced obesity and insulin resistance. AAPS J. 2013 Jan;15(1):258-66.



源叶生物