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产品名称：BMS-303141
产品别名：BMS-303141

生物活性：

Description	BMS-303141 is a potent, cell-permeable ATP-citrate lyase (ACL) inhibitor with an IC50 of 0.13 μM.
IC_{50} & Target	IC50: 0.13 uM (ACL)[1]
In Vitro	In HepG2 cells, BMS-303141 shows inhibition of total lipid syntheses with an IC50 of 8 μM. BMS-303141 shows no cytotoxicity up to 50 lM under a cell based Alamar Blue cytotoxicity assay, indicating the observed inhibition of lipid synthesis is not a result of compound-induced cytotoxicity[1].
In Vivo	Chronic oral dosing of BMS-303141 in high-fat fed mice lowers approximate 20-30% plasma cholesterol and triglycerides, as well as 30-50% fasting plasma glucose. Chronic treatment with BMS-303141 shows a gradual inhibition of weight gain along with a reduction in adiposity without apparent changes in food intake. BMS-303141 shows an oral bioavailability of 55% but a relatively short half-life of 2.1 h[1].
Solvent&Solubility	***In Vitro:*** **DMSO : 25 mg/mL** (**58.92 mM;** Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3568 mL	11.7841 mL	23.5682 mL
	5 mM	0.4714 mL	2.3568 mL	4.7136 mL
	10 mM	0.2357 mL	1.1784 mL	2.3568 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 (5.89 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (5.89 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。

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

Solubility: ≥ 2.5 mg/mL (5.89 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (5.89 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。

	3.请依序添加每种溶剂： 10% DMSO →90% corn oil Solubility: ≥ 2.5 mg/mL (5.89 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (5.89 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 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中，混合均匀。
References	[1]. Li JJ, et al. 2-hydroxy-N-arylbenzenesulfonamides as ATP-citrate lyase inhibitors. Bioorg Med Chem Lett. 2007 Jun 1;17(11):3208-11.

实验参考：

Animal Administration	Mice: Effect of BMS-303141 in high-fat fed mice is studied. There are a total of four groups in the study; mice on normal diet and high-fat diet controls, and two treated groups that are supplemented with BMS-303141 in their high-fat diet to an equivalent daily dose of 10 or 100 mg/kg. The study is continued for a total of 34 days. Food consumption and body weight gain are tracked along with weekly assessment of lipid and glucose plasma chemistries[1].
References	[1]. Li JJ, et al. 2-hydroxy-N-arylbenzenesulfonamides as ATP-citrate lyase inhibitors. Bioorg Med Chem Lett. 2007 Jun 1;17(11):3208-11.