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产品名称：BVT 2733
产品别名：BVT 2733

生物活性：

Description

BVT 2733 is a new, small molecule, non-steroidal, isoform-selective inhibitor of 11beta-hydroxysteroid dehydrogenase type 1 (11β-HSD1). IC50 value: Target: 11β-HSD1 inhibitor in vitro: in vivo: BVT 2733 lowered hepatic PEPCK and glucose-6-phosphatase mRNA, blood glucose and serum insulin concentrations compared with vehicle treated mice [1]. CIA mice were treated with BVT-2733 (100 mg/kg, orally) or vehicle twice daily for 2 weeks. BVT-2733 treatment attenuated the arthritis severity and anti-CII level in CIA mice. BVT-2733 also decreased the levels of serum TNF-α, IL-1β, IL-6 and IL-17. BVT-2733 treatment also significantly reduced synovial inflammation and joint destruction [2]. Mice receiving BVT 2733 treatment exhibited decreased body weight and enhanced glucose tolerance and insulin sensitivity compared to control mice. BVT 2733 also down-regulated the expression of inflammation-related genes including monocyte chemoattractant protein 1 (MCP-1), tumor necrosis factor alpha (TNF-α) and the number of infiltrated macrophages within the adipose tissue in vivo [3].

Solvent&Solubility

In Vitro:

DMSO : 50 mg/mL (116.56 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.3312 mL	11.6561 mL	23.3122 mL
5 mM	0.4662 mL	2.3312 mL	4.6624 mL
10 mM	0.2331 mL	1.1656 mL	2.3312 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 (5.83 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (5.83 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 (5.83 mM); Clear solution

此方案可获得 ≥ 2.5 mg/mL (5.83 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 (5.83 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (5.83 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]. Alberts P, et al. Selective inhibition of 11beta-hydroxysteroid dehydrogenase type 1 decreases blood glucose concentrations in hyperglycaemic mice. Diabetologia. 2002 Nov;45(11):1528-32. [2]. Zhang L, et al. 11β-Hydroxysteroid dehydrogenase 1 inhibition attenuates collagen-induced arthritis. Int Immunopharmacol. 2013 Nov;17(3):489-94. [3]. Wang L, et al. BVT.2733, a selective 11β-hydroxysteroid dehydrogenase type 1 inhibitor, attenuates obesity and inflammation in diet-induced obese mice. PLoS One. 2012;7(7):e40056.