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产品名称: **GPR120-IN-1**
产品别名: **GPR120-IN-1**

生物活性:				
Description	GPR120-IN-1 is a selective Gpr120 agonist with a logEC ₅₀ of -7.62.			
IC ₅₀ & Target	logEC ₅₀ : -7.62 ^[1]			
In Vitro	GPR120-IN-1 is fully selective for Gpr120 (logEC ₅₀ =-7.62) with negligible activity towards Gpr40. GPR120-IN-1 produces concentration dependent increases in IP ₃ production from both human and mouse Gpr120 expressing cells. GPR120-IN-1 leads to a concentration-dependent response to recruit β-arrestin-2 in both human and mouse Gpr120 expressing cells, with EC ₅₀ s of ~0.35 μM. GPR120-IN-1 strongly and comparably inhibits LPS-induced phosphorylation of Tak1, Ikkβ, and Jnk and blocked IκB degradation ^[1] .			
In Vivo	GPR120-IN-1 causes improved insulin sensitivity with increased glucose infusion rates, enhanced insulin stimulated-glucose disposal rate, along with a marked increase in the ability of insulin to suppress hepatic glucose production only in WT mice. GPR120-IN-1 treatment has beneficial effects on hepatic lipid metabolism, causing decreased hepatic steatosis, decreased liver triglycerides, and DAGs, along with reduced saturated free fatty acid content ^[1] .			
Solvent&Solubility	In Vitro: DMSO : ≥ 50 mg/mL (123.20 mM) * "≥" means soluble, but saturation unknown.			
	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg
		1 mM	2.4640 mL	12.3201 mL
		5 mM	0.4928 mL	2.4640 mL
		10 mM	0.2464 mL	1.2320 mL
	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 (6.16 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (6.16 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)			



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	<p>Solubility: ≥ 2.5 mg/mL (6.16 mM); Clear solution</p> <p>此方案可获得 ≥ 2.5 mg/mL (6.16 mM, 饱和度未知) 的澄清溶液。</p> <p>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。</p> <p>3.请依序添加每种溶剂: 10% DMSO \rightarrow 90% corn oil</p> <p>Solubility: ≥ 2.5 mg/mL (6.16 mM); Clear solution</p> <p>此方案可获得 ≥ 2.5 mg/mL (6.16 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 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中, 混合均匀。</p>
References	[1]. Oh DY, et al. A Gpr120-selective agonist improves insulin resistance and chronic inflammation in obese mice. Nat Med. 2014 Aug;20(8):942-7.
实验参考:	
Animal Administration	Mice: Male C57Bl/6 WT or Gpr120 KO littermates are fed a normal chow (13.5% fat) or high-fat diet (60% fat) ad libitum for 15-20 weeks from 8 weeks of age. After 15 weeks on HFD, WT and Gpr120 KO mice are switched to an isocaloric HFD supplemented with ω 3-FA concentrate or 30 mg/kg GPR120-IN-1 and fed for 5 weeks. Mice receive fresh diet every 3rd day, and food consumption and body weight are monitored ^[1] .
References	[1]. Oh DY, et al. A Gpr120-selective agonist improves insulin resistance and chronic inflammation in obese mice. Nat Med. 2014 Aug;20(8):942-7.

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