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产品名称: **MGAT2-IN-1**
产品别名: **MGAT2-IN-1**

生物活性:					
Description	MGAT2-IN-1 is an orally active inhibitor of monoacylglycerol acyltransferase (MGAT2) with IC ₅₀ of 7.8 and 2.4 nM for human and mouse MGAT2, respectively.				
IC ₅₀ & Target	IC50: 7.8 nM (Human MGAT2), 2.4 nM (Mouse MGAT2) ^[1]				
In Vivo	MGAT2-IN-1 (3, 10 mg/kg, p.o.) dose-dependently suppresses plasma TG elevation, and plasma CM/TG AUC in mice. MGAT2-IN-1 does not decrease MG absorption but inhibits MGAT2-dependent TG/DG resynthesis. In the lipid utilization analysis, MGAT2-IN-1 significantly increases free fatty acid (FFA) and acylcarnitine levels. MGAT2-IN-1 (30 mg/kg) also significantly reduces food intake dose dependently, suppresses BW gains. MGAT2-IN-1 shows anti-diabetic effects in mice[1].				
Solvent&Solubility	In Vitro: DMSO : ≥ 125 mg/mL (191.13 mM) * "≥" means soluble, but saturation unknown.				
	Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
		1 mM	1.5290 mL	7.6451 mL	15.2903 mL
		5 mM	0.3058 mL	1.5290 mL	3.0581 mL
		10 mM	0.1529 mL	0.7645 mL	1.5290 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。				
References	[1]. Take K, et al. Pharmacological Inhibition of Monoacylglycerol O-Acyltransferase 2 Improves Hyperlipidemia, Obesity, and Diabetes by Change in Intestinal Fat Utilization. PLoS One. 2016 Mar 3;11(3):e0150976.				
实验参考:					
Animal Administration	Mice: Overnight-fasted mice undergo MTT in the morning. First, they are orally administered vehicle (0.5% methylcellulose solution) or MGAT2-IN-1 suspended in 0.5% methylcellulose. Six or 16 h after dosing, they are intraperitoneally injected 500 mg/kg Pluronic F-127 to inhibit plasma TG hydrolysis by lipoprotein lipase (LPL). Thirty minutes after injection, the mice are given an oral liquid meal (10 mL/kg) comprising an admixture of corn oil and Ensure-H (3:17 v/v). Blood samples are collected at 0, 2 and 4 h after oral gavage of the liquid meal. Area under the curve (AUC) of chylomicron TG (CM/TG), which is synthesised from dietary fat in the small intestine, is calculated by subtracting plasma TG levels of a liquid meal-untreated group from plasma TG levels of each treated group. [1]				
References	[1]. Take K, et al. Pharmacological Inhibition of Monoacylglycerol O-Acyltransferase 2 Improves Hyperlipidemia, Obesity, and Diabetes by Change in Intestinal Fat Utilization. PLoS One. 2016 Mar 3;11(3):e0150976.				