



上海源叶生物科技有限公司
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产品名称: 胆甾烯基豆蔻酸酯

产品别名: **Cholesterol myristate; Cholesteryl myristate; Cholesteryl tetradecanoate**

生物活性:					
Description	Cholesterol myristate is a natural steroid present in traditional Chinese medicine. Cholesterol myristate binds to several ion channels such as the nicotinic acetylcholine receptor, GABAA receptor, and the inward-rectifier potassium ion channel.				
IC ₅₀ & Target	Human Endogenous Metabolite				
In Vitro	Mesenchymal stem cells (MSCs) transfected by the Id1 promoter reporter construct, cholesterol myristate increases the activity of Id1 promoter. Cholesterol myristate inhibits the apoptosis of MSCs induced by serum-free. Cholesterol myristate increases the expression of Id1 and its target gene bcl-xl in MSCs treated with serum-free. Moreover, noggin, a BMP antagonist, reduces the anti-apoptotic effects of cholesterol myristate[1]. Cholesterol myristate inhibits the apoptosis of PC12 cells induced in serum-free condition. Cholesterol myristate significantly increases the expression of BMP4, BMPRIA, p-Smad1/5/8, Id1 and its antiapoptotic target gene Bcl-xL in PC12 cells treated in serum-free condition[1].				
Solvent&Solubility	In Vitro: Ethanol : 2 mg/mL (3.35 mM; Need ultrasonic) DMSO : < 1 mg/mL (insoluble or slightly soluble)				
	Preparing Stock Solutions	<div>Solvent Mass Concentration</div>	1 mg	5 mg	10 mg
		1 mM	1.6750 mL	8.3751 mL	16.7501 mL
		5 mM	---	---	---
		10 mM	---	---	---
<p>*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。</p> <p>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。</p>					
References	<p>[1]. Chen DF, et al. Cholesterol myristate suppresses the apoptosis of mesenchymal stem cells via upregulation of inhibitor of differentiation. Steroids. 2010 Dec 12;75(13-14):1119-26.</p> <p>[2]. Chen DF, et al. BMP-Id pathway targeted by cholesterol myristate suppresses the apoptosis of PC12 cells. Brain Res. 2011 Jan 7;1367:33-42.</p> <p>[3]. Levitan I, et al. Cholesterol binding to ion channels. Front Physiol. 2014 Feb 26;5:65.</p>				
实验参考:					
Cell Assay	MSCs are cultured with or without serum in 96-well plates and treated with cholesterol myristate in various concentrations (0, 30 and 300 µg/mL) for 3 days. Each sample is repeated in five independent wells and is incubated for 72 h. After incubation, 20 µL MTT (5 mg/mL) is added and the culture is incubated for a further 4 h. The culture medium is discarded and replaced with 150 µL DMSO. The absorbance at 490nm is measured[1].				



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