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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:																									
<b>Description</b>	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.																								
<b>IC<sub>50</sub> &amp; Target</b>	Human Endogenous Metabolite																								
<b>In Vitro</b>	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].																								
<b>Solvent&amp;Solubility</b>	<p><b>In Vitro:</b>  <b>Ethanol : 2 mg/mL (3.35 mM; Need ultrasonic)</b>  <b>DMSO : &lt; 1 mg/mL (insoluble or slightly soluble)</b></p>																								
	<table border="1"> <thead> <tr> <th rowspan="2">Preparing</th> <th colspan="2">Solvent</th> <th rowspan="2">1 mg</th> <th rowspan="2">5 mg</th> <th rowspan="2">10 mg</th> </tr> <tr> <th>Mass</th> <th>Concentration</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Stock Solutions</td> <td>1 mM</td> <td></td> <td>1.6750 mL</td> <td>8.3751 mL</td> <td>16.7501 mL</td> </tr> <tr> <td>5 mM</td> <td></td> <td>---</td> <td>---</td> <td>---</td> </tr> <tr> <td>10 mM</td> <td></td> <td>---</td> <td>---</td> <td>---</td> </tr> </tbody> </table>	Preparing	Solvent		1 mg	5 mg	10 mg	Mass	Concentration	Stock Solutions	1 mM		1.6750 mL	8.3751 mL	16.7501 mL	5 mM		---	---	---	10 mM		---	---	---
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<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。            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。</p>																									
<b>References</b>	<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:																									
<b>Cell Assay</b>	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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