

小白菊内酯 Parthenolide

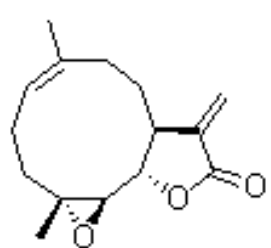
产品编号: MB2079

质量标准: 0.8%内酯含量,BR

包装规格: 5G

产品形式: solid

基本信息

分子式	C15H20O3	结 构 式	
分子量	248.32		
CAS No.	20554-84-1,29552-41-8		
储存条件	常温, 避光防潮密闭干燥		
溶解性(25°C)	DMSO : ≥50 mg/mL (201.35 mM)		
	Ethanol: 50 mg/mL (201.35 mM) (warmed with 50°C water bath)		
	Water: Insoluble		
注意事项	溶解性是在室温下测定的, 如果温度过低, 可能会影响其溶解性。		
其他说明	为了您的安全和健康, 请穿实验服并戴一次性手套操作。		

简介: Parthenolide 是在药草短舌匹菊中发现的倍半萜内酯。 Parthenolide 通过抑制 NF-κB 活化而表现出抗炎活性; 它还可抑制 HDAC1 蛋白而不影响其他 I/II 类 HDAC。

物理性状及指标:

外观:粉末

含量:0.8%内酯含量,BR

储存条件: 常温, 避光防潮密闭干燥

生物活性 (仅来自于公开文献, 不保证其有效性)

描述	Parthenolide is a sesquiterpene lactone found in the medicinal herb Feverfew. Parthenolide exhibits anti-inflammatory activity by inhibiting NF-κB activation; also inhibits HDAC1 protein without affecting other class I/II HDACs.
靶点	NF-κB Autophagy Mitophagy
体外	Parthenolide (PTL) has a dose-dependent growth inhibition effect on NSCLC cells Calu-1, H1792, A549, H1299, H157, and H460. Parthenolide can induce cleavage of apoptotic proteins such as CASP8, CASP9, CASP3 and PARP1 both in concentration- and time-dependent manner in tested lung cancer cells, indicating that apoptosis is triggered after Parthenolide exposure. In addition to induction of apoptosis, Parthenolide also induces G0/G1 cell cycle arrest in a concentration-dependent manner in A549 cells and G2/M cell cycle arrest in H1792 cells.

体内

Only Parthenolide, the HDAC inhibitor with anti-inflammatory features, displayed a potent anti-apoptotic effect in Phb1 KO hepatocytes. Indeed, TSA and Parthenolide-treated hepatocytes showed increased levels of FXR, and reduced levels of CYP7A1, HDAC4, TNF α , TRAIL and Bax suggesting a less toxic effect of bile acids as a results of specific HDAC inhibition, resulting in the attenuation of the Phb1 KO hepatocytes apoptotic response. Importantly, Parthenolide exerts a protective effect from the liver injury after BDL in Phb1 KO mice. Indeed, Parthenolide treatment results in a reduction of the mortality rate of this mice after BDL associated with a lower apoptotic response as revealed by a reduction of necrotic areas, Tunel-staining, as well as decreased ALT (8431 \pm 957 vs.4225 \pm 210 U/L) and AST (4805 \pm 300 vs.2242 \pm 438 U/L) activities compared to control Phb1 KO mice

储液配置及储存: 按表中溶解性配置; 如溶解困难, 可以通过快速搅拌, 超声或温和加热(在 45-60°C 下水浴)。液体稳定性报道的很少, 建议现配现用, 如需储存, 建议: -20°C 1-3 月; -80°C 3-6 月。

体 DMSO 浓度	质量 积	1 mg	5 mg	10 mg
1 mM		4.0271 mL	20.1353 mL	40.2706 mL
5 mM		0.8054 mL	4.0271 mL	8.0541 mL
10 mM		0.4027 mL	2.0135 mL	4.0271 mL
50 mM		0.0805 mL	0.4027 mL	0.8054 mL

用途及描述: 科研试剂, 广泛应用于分子生物学, 药理学等科研方面。小白菊内酯特异性的抑制 HDAC1(组蛋白去乙酰酶 1)而不影响其他 I/II HDACs。小白菊内酯是一种倍半萜烯内酯、天然植物萜类化合物。小白菊内酯具有抗炎、抗分泌、解痉药活性。小白菊内酯抑制 LPS 刺激的巨噬细胞中 Cox-2、TNF- α 、IL-1 等多种化学介质的释放, 激活 MAP 激酶和 NF-TNF- κ β 。最近的发现表明小白菊内酯能够结合并抑制 I κ β 激酶。所示的化合物也阻止凝血恶烷 B2 和白三烯 B4 的产生。

【注意】

- 我司产品为非无菌包装, 若用于细胞培养, 请提前做预处理, 除去热原细菌, 否则会导致染菌。
- 部分产品我司仅能提供部分信息, 我司不保证所提供信息的权威性, 以上数据仅供参考交流研究之用。