

Catalog Number: CM03062

产品信息

Catalog Number:
CM03062

CAS号:
20350-15-6

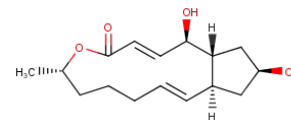
分子式:
C₁₆H₂₄O₄

主要靶点:
CRISPR/Cas9|Autophagy|HSV|Antibiotic|ATPase|Mitophagy

主要通路:
微生物学|自噬|离子通道|自噬|微生物学|DNA 损伤和修复

分子量:
280.36

溶解度:
DMSO:100 mg/mL (356.68 mM); Ethanol:2.8 mg/mL (9.99 mM)



靶点活性

ATPase (HCT 116 cells):0.2 μM

体外活性

方法: 肿瘤细胞 HL60、K562 和 HT-29 用 Brefeldin A (2 μM) 处理 72 h, 使用 DNA filter elution assay 检测 DNA 片段。结果: Brefeldin A 以不同的动力学诱导 DNA 断裂。HL60 细胞在 15 h 内观察到完整的 DNA 片段, 而 K562 和 HT-29 细胞则需要 48-72 h。[1] 方法: 人乳腺癌细胞 MDA-MB-231 用 Brefeldin A (0.05-1 μg/mL) 处理 24 h, 使用 Western Blot 方法检测靶点蛋白表达水平。结果: PARP 切割是细胞死亡的标志性事件, 可以在 Brefeldin A 处理的悬浮 MDA-MB-231 细胞中检测到。[2]

体内活性

方法: 为检测体内抗肿瘤活性, 将 Brefeldin A (15 mg/kg in 10% ricinus oil+5% DMSO+10% ethanol+75% physiologic saline) 腹腔注射给携带人结直肠癌肿瘤 HCT116 的 BALB/c 小鼠, 每天一次, 持续四周。结果: Brefeldin A 在体内抑制 HCT116 肿瘤生长。[3] 方法: 为检测体内抗肿瘤活性, 将 Brefeldin A (16-64 mg/kg in distilled water containing 0.05% Tween 80) 腹腔注射给携带肿瘤 LOXIMVI 的 Athymic NCr nu/nu 小鼠, 每天两次, 持续五天。结果: Brefeldin A 在体内显示出抗肿瘤活性, 小鼠寿命增加 65%-100%, 第 60 天幸存者增加 17%-50%。[4]

细胞实验

HF1A3, HF4.9 cell viability upon the treatments is tested using double staining of cells with YO-PRO 1/PI and SYTO16/PI probes. To access cell proliferation, cells are treated with 0-100 ng/mL Brefeldin A in complete medium for 20 hours before adding 1 μCi/mL [methyl-3H]-thymidine for additional 4 hours at 37 °C. The incorporated radioactive thymidine is quantified by scintillation counting with Microbeta counter. To examine long-term effects of Brefeldin A treatment, cells are seeded at initial concentration 105 cells/mL and treated with 0-75 ng/mL Brefeldin A for up to 5 days. At the time indicated, a sample of cells is removed and viable cell number is assessed by standard Trypan Blue exclusion assay.(Only for Reference)

储存

store at low temperature | Powder: -20°C for 3 years | In solvent: -80°C for 1 year | Shipping with blue ice.