

Z-VAD(OMe)-FMK

产品编号: D50433

CAS: 187389-52-2

保存条件: Store at -20°C.

产品介绍: **基本信息:**

CAS: 187389-52-2

分子式: C₂₂H₃₀FN₃O₇

分子量: 467.49

序列: Z-Val-Ala-Asp-CH₂F

纯度: ≥98%

产品简介:

作用靶点: Caspase;

作用通路: Apoptosis;

产品描述: Z-VAD-FMK是一种细胞渗透性的, 不可逆泛caspase抑制剂 (Cell permeable pan caspase inhibitor), 可以抑制由Caspase激活导致的细胞凋亡。在THP.1 和 Jurkat T细胞中阻断细胞凋亡的所有特性。

注意事项:

1. 如果每次使用量少, 使用次数较多, 请适当分装保存, 避免反复冻融。
2. 如果希望适当稀释后再分装保存, 请使用DMSO进行稀释。
3. 本产品 in 较低温度情况下会出现凝固, 可在20-25°C 水浴温育片刻至全部融解后使用。
4. 为了您的安全和健康, 请穿实验服并戴一次性手套操作。

体外研究:

Z-VAD-FMK (10 mM) inhibits apoptosis in THP.1 cells. Z-VAD-FMK (10 μM) inhibits activation of PARP protease activity in control THP.1 cell lysates. Z-VAD-FMK (10 mM) inhibits the processing of CPP32 in intact THP.1 and Jurkat cells. Z-VAD-FMK (50 μM) cotreatment abolishes the apoptotic morphology of camptothecin-treated HL60 cells. Z-VAD-FMK (50 μM) blocks camptothecin-induced DNA fragmentation in HL60 cells. Z-VAD-FMK (50 μM) inhibits cell death following dSMN dsRNA-induced apoptosis in S2 cells. Z-VAD-FMK (50 μM) increases the percentage of transfected cells surviving from 26% to 63% in S2 cells. Z-VAD-FMK (> 100 μM) enhances TNFα-induced neutrophil apoptosis, lower concentrations (1-30 μM) completely blocks TNFα-stimulated apoptosis in human neutrophils. Z-VAD-FMK (10 mM) inhibits apoptosis in anterior stromal keratocytes. Z-VAD-FMK (10 mM) inhibits

apoptosis in anterior stromal keratocytes detected with the TUNEL assay.

体内研究:

In vivo Z-VAD-FMK administration has been shown previously to be nontoxic and to prevent apoptosis in animal models. Intraperitoneal HK-GBS injection leads to preterm delivery, and pretreatment with Z-VAD-FMK delays preterm delivery in mice. In OVA-sensitized mice, treatment of z-VAD-fmk inhibits allergen-induced leukocyte infiltration. Systemic injection of the pan-caspase inhibitor z-VAD-fmk immediately before OVA challenge reduced inflammatory cell accumulation, mucus hypersecretion, and Th2 cytokine release in OVA-sensitized/challenged mice. Treatment with z-VAD-fmk blocked terminal differentiation of lens epithelial cells and keratinocytes, the differentiation of monocytes into macrophages, and the differentiation of erythroid progenitors. z-VAD-fmk attenuated allergen-induced airway inflammation and hyperreactivity. Treatment with z-VAD-fmk in vivo also prevented subsequent T cell activation ex vivo.