

Catalog Number: CM01341

产品信息

Catalog Number:
CM01341

CAS号:
6823-69-4

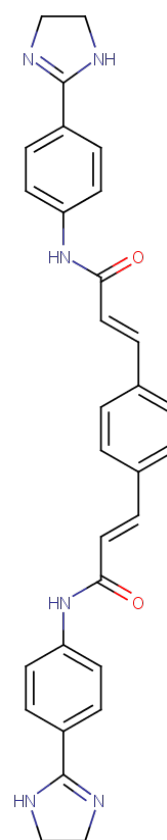
分子式:
C₃₀H₃₀Cl₂N₆O₂

主要靶点:
Phospholipase

主要通路:
代谢

分子量:
577.5

溶解度:
DMSO:14.71 mg/mL (25.46 mM), Sonification is recommended.



HCl

HCl

靶点活性

SMase:1 μ M

体外活性

GW4869 (10 μ M) partially inhibits TNF-induced sphingomyelin (SM) hydrolysis, and 20 μ M of the compound is protected completely from the loss of SM. The addition of 10-20 μ M GW4869 completely inhibits the initial accumulation of ceramide, whereas this effect is partially lost at later time points (24 h). The action of GW4869 occurs downstream of the drop in glutathione. GW4869 is able, in a dose-dependent manner, to significantly protect from cell death. These protective effects are accompanied by significant inhibition of cytochrome c release from mitochondria and caspase 9 activation, therefore localizing N-SMase activation upstream of mitochondrial dysfunction[1].

体内活性

Pre-treatment with GW4869 significantly impairs release of both exosomes and pro-inflammatory cytokines (TNF- α , IL-1 β , IL-6) in RAW264.7 macrophages. At 12 h after LPS treatment or CLP surgery, WT mice pretreated with GW4869 displays lower amounts of exosomes and pro-inflammatory cytokines in the serum than control PBS-injected mice. Accordingly, GW4869 treatment diminishes the sepsis-induced cardiac inflammation, attenuates myocardial depression and prolongs survival[2].

细胞实验

GW4869 is routinely stored at -80°C as a 1.5 mM stock suspension in Me2SO. Right before use, the suspension is solubilized by the addition of 5% methane sulfonic acid (MSA) (2.5 μ l of 5% MSA in sterile double-distilled Water are added to 50 μ l of GW4869 stock suspension). Cells are treated with GW4869 for 30 min and then TNF is added in 10 μ l/well. At the indicated time points, 25 μ l of MTT stock solution are added to each well and incubated at 37°C in 5% CO₂ for 3 h. The cell viability is using the MTT assay[1].

描述

GW4869 (GW69A) is a noncompetitive inhibitor of neutral sphingomyelinase (N-SMase, IC₅₀ of 1 μ M). GW4869(GW 4869) is an exosome biogenesis/release inhibitor.

储存

Powder: -20°C for 3 years | In solvent: -80°C for 2 years