Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Nonivamide

Catalog No: tcsc3003

Available Sizes

Size: 100mg

Size: 500mg

Size: 5g

Specifications

CAS No:
2444-46-4

Formula:
$C_{17}H_{27}NO_3$

Pathway:
Membrane Transporter/Ion Channel

Target:
TRP Channel

Purity / Grade:
>98%

Solubility:
DMSO : 100 mg/mL (340.83 mM; Need ultrasonic)

Alternative Names:
Pseudocapsaicin;Pelargonic acid vanillylamide;Nonanoic acid vanillylamide

Observed Molecular Weight:
293.4

Product Description

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Nonivamide is a **agonist, which exhibits 4d-EC_{50} value of 5.1 mg/L in static toxicity tests.**

IC50 & Target: TRPV1[1]

In Vitro: **Nonivamide, a synthetic derivate of natural capsaicin, has an effective antifouling activity. Capsaicin exhibits 4d-EC_{50} values of 5.5±0.5 mg/L, 23±2 mg/L, 6.9±0.2 mg/L, and 15.6±0.4 mg/L in static toxicity tests conducted using *Pseudomonas putida*, Lake Erie bacteria, *Vibrio natriegens*, and *Vibrio parahaemolyticus*, respectively. A significant growth inhibitory effect (p50 value (4 d-EC_{50}) is 5.1 mg/L[1]. Nonivamide treatment causes calcium release from the ER and altered the transcription of growth arrest- and DNA damage-inducible transcript 3 (GADD153), GADD45α, GRP78/BiP, ATF3, CCND1, and CCNG2) in a manner comparable with prototypical ER stress-inducing agents. ER calcium flux is evaluated by pretreating cells with 2.5 μM thapsigargin for 5 min followed by addition of 2.5 μM Nonivamide. Treatment of TRPV1-overexpressing cells with 2.5 μM Nonivamide produces marked increases in cytosolic calcium due to release of calcium from ER stores. Treatment of TRPV1-overexpressing cells with 1 μM Nonivamide causes an approximate 50% loss in cell viability after a 24-h period. BEAS-2B cells treated with 100 and 200 μM Nonivamide also exhibits a shift in the relative amount of EIF2α-P and an increase in the expression of GADD153 mRNA and protein[2]. Treatment with Nonivamide reduces lipid accumulation to a similar extent as CAP; the effects are not different from the effects after CAP treatment at any of the tested concentrations. Compared to untreated control cells, treatment with Nonivamide decreases lipid accumulation by 5.34±1.03% (P[3].**