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

[6]-Gingerol

Catalog No: tcsc6333

Available Sizes

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
23513-14-6

Formula:
$C_{17}H_{26}O_4$

Pathway:
Apoptosis;Epigenetics;PI3K/Akt/mTOR

Target:
Apoptosis;AMPK;AMPK

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 50 mg/mL (169.84 mM)

Alternative Names:
(S)-(+)-[6]Gingerol;6-Gingerol

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Observed Molecular Weight:
294.39

Product Description

[6]-Gingerol is an active compound isolated from Ginger (*Zingiber officinale Rosc*), exhibits a variety of biological activities including anticancer, anti-inflammation, and anti-oxidation.

IC50 & Target: AMPK[2]

In Vitro: [6]-gingerol inhibits colon cancer cell proliferation and induced apoptosis, while the normal colon cells are unaffected. [6]-gingerol down-regulates phorbol myristate acetate induced phosphorylation of ERK1/2 and JNK MAP kinases and activation of AP-1 transcription factor, but has only little effects on phosphorylation of p38 MAP kinase and activation of NF-kappa B[1]. [6]-gingerol treatment is shown to restore impaired intestinal barrier function and to suppress proinflammatory responses in DSS-treated Caco-2 monolayers. AMPK is activated on [6]-gingerol treatment[2]. Treatment with [6]-gingerol results in a significant decrease in the viability of osteosarcoma cells in a dose-dependent fashion. In parallel, the number of cells arrested at the sub-G1 cell cycle phase is significantly increased. [6]-gingerol induces activation of caspase cascades and regulates cellular levels of Bcl2 and Bax[3].

In Vivo: In animal studies, [6]-gingerol significantly ameliorates DSS-induced colitis by restoration of body weight loss, reduction in intestinal bleeding, and prevention of colon length shortening. In addition, [6]-gingerol suppresses DSS-elevated production of proinflammatory cytokines (IL-1β, TNFα, and IL-12)[2].