

# [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 :  $\geq 50$  mg/mL (169.84 mM)

**Alternative Names:**

(S)-(+)-[6]Gingerol;6-Gingerol

### Observed Molecular Weight:

294.39

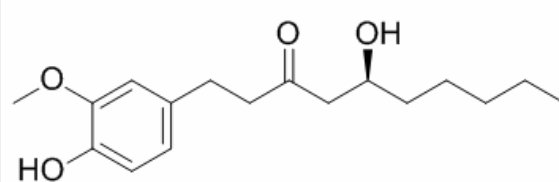
## Product Description

[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<sup>[2]</sup>

**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<sup>[1]</sup>. [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<sup>[2]</sup>. 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<sup>[3]</sup>.

**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-1 $\beta$ , TNF $\alpha$ , and IL-12)<sup>[2]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!