

# **Ginkgolic Acid**

Catalog No: tcsc3728

Available Sizes

Size: 5mg

Size: 10mg

Specifications

**CAS No:** 22910-60-7

## Formula:

 $C_{22}H_{34}O_{3}$ 

**Pathway:** Metabolic Enzyme/Protease

## **Target:**

E1/E2/E3 Enzyme

## Purity / Grade:

>98%

## **Solubility:** 10 mM in DMSO

## Alternative Names:

Ginkgolic acid (15:1);Ginkgolic acid I;Romanicardic acid

#### **Observed Molecular Weight:**

346.5

## **Product Description**

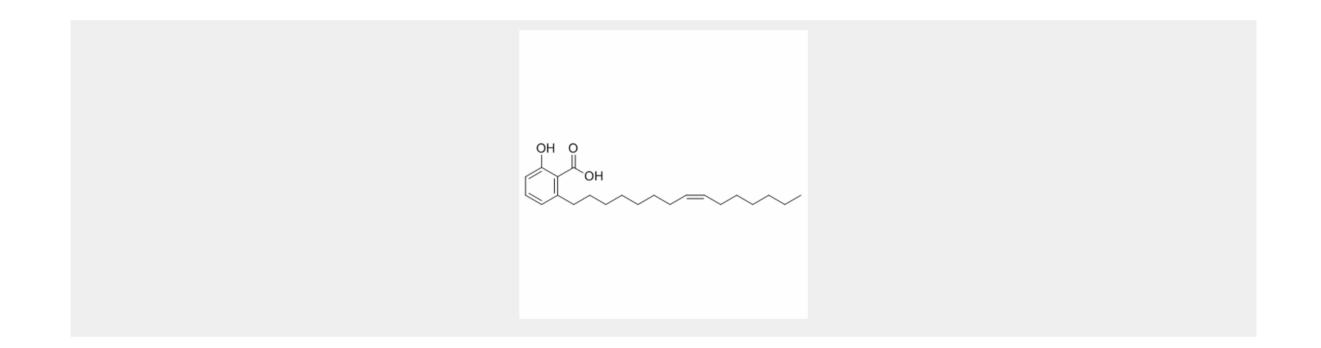
Ginkgolic Acid is a natural compound that inhibits **SUMOylation** with an **IC**<sub>50</sub> of 3.0  $\mu$ M in *in vitro* assay.

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### IC50 & Target: IC50: 3.0 μM (SUMOylation)<sup>[1]</sup>

*In Vitro:* Ginkgolic acid inhibits the in vitro SUMOylation of RanGAP1-C2 with the IC<sub>50</sub> values of 3.0  $\mu$ M. The level of SUMOylated p53 is markedly reduced by the ginkgolic acid treatment. Importantly, ginkgolic acid does not affect protein ubiquitination in cells. Ginkgolic acid inhibits the binding between E1 and GA-BODIPY in a dose-dependent manner<sup>[1]</sup>. Ginkgolic acid (31.2  $\mu$ g/mL) inhibits HIV protease activity by 60%, compared with the negative control, and the effect is concentration-dependent. Ginkgolic acid treatment (50 and 100  $\mu$ g/mL) effectively inhibits HIV infection in human PBMC cells. Ginkgolic acid at the concentrations up to 150  $\mu$ g/mL does not cause any significant cytotoxicity in Jurkat cells<sup>[2]</sup>. GA only inhibits the growth of tumorogenic cell lines in a both dose- and time-dependent manner. Tumor cells are treated with GA for 72 h, 70.53±4.54% Hep-2 and 63.5±7.2% Tca8113 cells are retarded at GO/G1 phase, and the percentage of apoptosis is 40.4±1.58 and 38.4±1.7%, respectively. GA-treated activated caspase-3 downregulates the expression of anti-apoptotic Bcl-2 protein and upregulates the expression of pro-apoptotic Bax protein, eventually leading to a decrease in the Bcl-2/Bax ratio in tumor cells in human PBMC cells. Ginkgolic acid at the concentrations up to 150  $\mu$ g/mL does not cause any significant cytotoxicity in Jurkat cells<sup>[3]</sup>.



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