Proteins

Screening Libraries

Product Data Sheet

Gingerenone A

Cat. No.: HY-120912 CAS No.: 128700-97-0 Molecular Formula: $C_{21}H_{24}O_{5}$ Molecular Weight: 356.41

Target: Keap1-Nrf2; Glutathione Peroxidase

Pathway: NF-κB; Apoptosis; Metabolic Enzyme/Protease

Storage: Pure form -20°C 3 years

In solvent

4°C 2 years -80°C 6 months

-20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO: 100 mg/mL (280.58 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.8058 mL	14.0288 mL	28.0576 mL
	5 mM	0.5612 mL	2.8058 mL	5.6115 mL
	10 mM	0.2806 mL	1.4029 mL	2.8058 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.5 mg/mL (7.01 mM); Clear solution; Need ultrasonic
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (7.01 mM); Clear solution; Need ultrasonic
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: 2.5 mg/mL (7.01 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description	Gingerenone A is a Nrf2-Gpx4 activator with anti-breast-cancer properties. Gingerenone A results a delayed G2/M in cancer cells, following oxidative stress and senescence responses. Gingerenone A also alleviates ferroptosis in secondary liver injury (SLI) in dextran sodium sulfate (DSS)-induced colitis mice. Gingerenone A can be isolated from Zingiber officinale ^{[1][2]} .
IC ₅₀ & Target	Nrf2-Gpx4 ^[1]

REFERENCES
[1]. Yu TJ, et al. Gingerenone A Induces Antiproliferation and Senescence of Breast Cancer Cells. Antioxidants (Basel). 2022 Mar 19;11(3):587.
[2]. Chen Y, et al. Gingerenone A Alleviates Ferroptosis in Secondary Liver Injury in Colitis Mice via Activating Nrf2-Gpx4 Signaling Pathway. J Agric Food Chem. 2022 Oct 5;70(39):12525-12534.
[2]. Chen Y, et al. Gingerenone A Alleviates Ferroptosis in Secondary Liver Injury in Colitis Mice via Activating Nrf2-Gpx4 Signaling Pathway. J Agric Food Chem. 2022 Oct

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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