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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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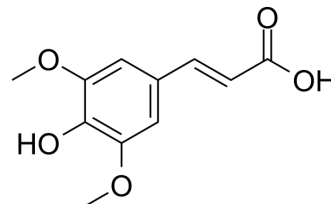
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Sinapinic acid

| | | | | | | | | | | | | | |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|---------|--|-----|---------|------------|-------|----------|--|-------|---------|
| Cat. No.: | HY-W009732 | | | | | | | | | | | | |
| CAS No.: | 530-59-6 | | | | | | | | | | | | |
| Molecular Formula: | C ₁₁ H ₁₂ O ₅ | | | | | | | | | | | | |
| Molecular Weight: | 224.21 | | | | | | | | | | | | |
| Target: | HDAC; Angiotensin-converting Enzyme (ACE); Reactive Oxygen Species; Apoptosis | | | | | | | | | | | | |
| Pathway: | Cell Cycle/DNA Damage; Epigenetics; Metabolic Enzyme/Protease; Immunology/Inflammation; NF-κB; Apoptosis | | | | | | | | | | | | |
| Storage: | <table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>6 months</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 month</td> </tr> </table> | Powder | -20°C | 3 years | | 4°C | 2 years | In solvent | -80°C | 6 months | | -20°C | 1 month |
| Powder | -20°C | 3 years | | | | | | | | | | | |
| | 4°C | 2 years | | | | | | | | | | | |
| In solvent | -80°C | 6 months | | | | | | | | | | | |
| | -20°C | 1 month | | | | | | | | | | | |



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (223.01 mM; Need ultrasonic)
Ethanol : 25 mg/mL (111.50 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent Concentration | Mass | | |
|---------------------------|-----------------------|-----------|------------|------------|
| | | 1 mg | 5 mg | 10 mg |
| | 1 mM | 4.4601 mL | 22.3005 mL | 44.6010 mL |
| | 5 mM | 0.8920 mL | 4.4601 mL | 8.9202 mL |
| | 10 mM | 0.4460 mL | 2.2301 mL | 4.4601 mL |

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (11.15 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (11.15 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (11.15 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (11.15 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (11.15 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (11.15 mM); Clear solution

BIOLOGICAL ACTIVITY

| | | |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Description | Sinapinic acid (Sinapic acid) is a phenolic compound isolated from <i>Hydnophytum formicarum</i> Jack. Rhizome, acts as an inhibitor of HDAC, with an IC ₅₀ of 2.27 mM ^[1] , and also inhibits ACE-I activity ^[2] . Sinapinic acid possess potent anti-tumor activity, induces apoptosis of tumor cells ^[1] . Sinapinic acid shows antioxidant and antidiabetic activities ^[2] . Sinapinic acid reduces total cholesterol, triglyceride, and HOMA-IR index, and also normalizes some serum parameters of antioxidative abilities and oxidative damage in ovariectomized rats ^[3] . | |
| IC₅₀ & Target | HDAC 2.27 mM (IC ₅₀) | ACE-I |
| In Vitro | Sinapinic acid acts as an inhibitor of HDAC, with an IC ₅₀ of 2.27 mM ^[1] . Sinapinic acid also inhibits ACE-I activity ^[2] . Sinapinic acid inhibits HDAC activity in HeLa cells, suppresses the growth of HeLa and HT29 cells with IC ₅₀ s of 0.91 ± 0.02 mM and 1.6 ± 0.02 mM at 72 h, respectively, induces apoptosis of these cancer cells ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. | |
| In Vivo | Sinapinic acid (5 or 25 mg/kg, p.o. daily for 4 weeks) increases the serum estradiol concentration; decreases insulin resistance and the triglyceride and total cholesterol concentrations; and favorably affects the parameters of antioxidant abilities (reduces glutathione, superoxide dismutase) and oxidative damage in rats ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. | |

CUSTOMER VALIDATION

- Am J Chin Med. 2022 Oct 12;1-13.
- Drug Dev Res. 2021 Dec 3.
- Research Square Preprint. 2022 Feb.

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REFERENCES

[1]. Senawong T, et al. Histone deacetylase (HDAC) inhibitory and antiproliferative activities of phenolic-rich extracts derived from the rhizome of *Hydnophytum formicarum* Jack.: sinapinic acid acts as HDAC inhibitor. *BMC Complement Altern Med*. 2013 Sep 22;13:

[2]. Quinn L, et al. Extraction and Quantification of Sinapinic Acid from Irish Rapeseed Meal and Assessment of Angiotensin-I Converting Enzyme (ACE-I) Inhibitory Activity. *J Agric Food Chem*. 2017 Aug 16;65(32):6886-6892.

[3]. Zych M, et al. The Effects of Sinapic Acid on the Development of Metabolic Disorders Induced by Estrogen Deficiency in Rats. *Oxid Med Cell Longev*. 2018 Jun 4;2018:9274246.

Caution: Product has not been fully validated for medical applications. For research use only.

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