

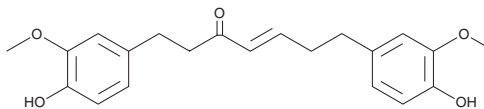
PRODUCT INFORMATION



Gingerenone A

Item No. 36841

CAS Registry No.: 128700-97-0
Formal Name: 1,7-bis(4E-hydroxy-3-methoxyphenyl)-4-hepten-3-one
MF: C₂₁H₂₄O₅
FW: 356.4
Purity: ≥95%
UV/Vis.: λ_{max}: 224 nm
Supplied as: A 50 mg/ml solution in ethanol
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Zingiber officinale* Roscoe



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

Gingerenone A is a diarylheptanoid and polyphenol that has been found in *Z. officinale* and has diverse biological activities.¹⁻⁵ It inhibits tyrosinase (IC₅₀ = 9.4 μM for the mushroom enzyme) and scavenges DPPH (Item No. 14805) radicals in a cell-free assay (IC₅₀ = 12.6 μM).^{1,2} Gingerenone A (5 and 10 μM) also inhibits JAK2 and p70 ribosomal S6 kinase 1 (p70S6K1).³ It selectively decreases the viability of ionizing radiation-induced senescent WI38 fibroblasts over proliferating fibroblasts when used at a concentration of 20 μM.⁴ Gingerenone A (50 mg/kg) prevents increases in body weight but does not affect caloric intake in a mouse model of high-fat diet-induced obesity.⁵ It decreases tumor weight in an HCT116 colon cancer mouse xenograft model when administered at doses of 5 and 20 mg/kg.³

References

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2. Li, N., Wang, L., Zu, L., *et al.* Antioxidant and cytotoxic diarylheptanoids isolated from *Zingiber officinale* rhizomes. *Chin. J. Chem.* **30**, 1351-1355 (2012).
3. Byun, S., Lim, S., Mun, J.Y., *et al.* Identification of a dual inhibitor of Janus kinase 2 (JAK2) and p70 ribosomal S6 kinase1 (S6K1) pathways. *J. Biol. Chem.* **290(39)**, 23553-23562 (2015).
4. Moaddel, R., Rossi, M., Rodriguez, S., *et al.* Identification of gingerenone A as a novel senolytic compound. *PLoS One* **17(3)**, e0266135 (2022).
5. Suk, S., Kwon, G.T., Lee, E., *et al.* Gingerenone A, a polyphenol present in ginger, suppresses obesity and adipose tissue inflammation in high-fat diet-fed mice. *Mol. Nutr. Food Res.* **61(10)** (2017).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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