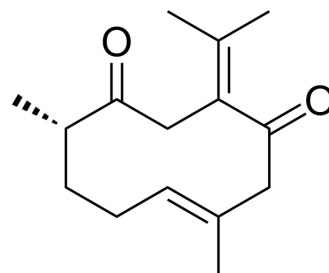


Dehydrocurdione

Cat. No.:	HY-N8160
CAS No.:	38230-32-9
Molecular Formula:	C ₁₅ H ₂₂ O ₂
Molecular Weight:	234.33
Target:	Keap1-Nrf2; Reactive Oxygen Species
Pathway:	NF-κB; Immunology/Inflammation; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Dehydrocurdione, a zedoary-derived sesquiterpene, induces heme oxygenase (HO)-1, an antioxidative enzyme, in RAW 264.7 macrophages. Dehydrocurdione interacts with Keap1, resulting in Nrf2 translocation followed by activation of the HO-1 E2 enhancer. Dehydrocurdione suppresses lipopolysaccharide-induced NO release, a marker of inflammation. Anti-inflammatory activity ^{[1][2]} .								
In Vitro	<p>Dehydrocurdione (RAW 264.7 cells) concentration-dependently increases the HO-1 mRNA level for 3 hr and the protein level for 6 hr, and both effects reached significance at a concentration of 100 μM^[1].</p> <p>Dehydrocurdione interacts with Keap, resulting in Nrf2 translocation followed by activation of the HO-1 E2 enhancer^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>RAW 264.7 cells</td> </tr> <tr> <td>Concentration:</td> <td>100 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 hours</td> </tr> <tr> <td>Result:</td> <td>Transiently increased the HO-1 protein level, and its effect peaked at 3-6 hr.</td> </tr> </table>	Cell Line:	RAW 264.7 cells	Concentration:	100 μM	Incubation Time:	24 hours	Result:	Transiently increased the HO-1 protein level, and its effect peaked at 3-6 hr.
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In Vivo	<p>Dehydrocurdione (P.o ;120 mg/kg, daily for 12 days) significantly reduces chronic adjuvant arthritis^[2].</p> <p>Dehydrocurdione (200 mg/kg; p.o.; Sprague-Dawley rats) dose-dependently inhibits carrageenan-induced paw edema^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Wistar rats^[2]</td> </tr> <tr> <td>Dosage:</td> <td>120 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>P.o ; daily for 12 days</td> </tr> <tr> <td>Result:</td> <td>Significantly reduces chronic adjuvant arthritis.</td> </tr> </table>	Animal Model:	Wistar rats ^[2]	Dosage:	120 mg/kg	Administration:	P.o ; daily for 12 days	Result:	Significantly reduces chronic adjuvant arthritis.
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REFERENCES

[1]. Ohnishi M, et al. Curcuma sp.-derived dehydrocurdione induces heme oxygenase-1 through a Michael reaction between its α , β -unsaturated carbonyl and Keap1. *Phytother Res.* 2018;32(5):892-897.

[2]. Yoshioka T, et al. Antiinflammatory potency of dehydrocurdione, a zedoary-derived sesquiterpene. *Inflamm Res.* 1998;47(12):476-481.

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

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