

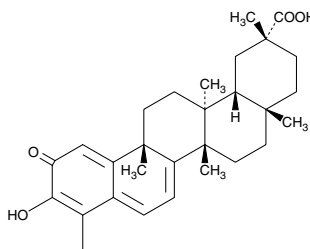
Product Information



Celastrol

Item No. 70950

CAS Registry No.: 34157-83-0
Formal Name: 3-hydroxy-9 β ,13 α -dimethyl-2-oxo-24,25,26-trinoroleana-1(10),3,5,7-tetraen-29-oic acid
MF: C₂₉H₃₈O₄
FW: 450.6
Purity: \geq 98%
Stability: \geq 2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max} : 253, 424 nm



Laboratory Procedures

For long term storage, we suggest that celastrol be stored as supplied at -20°C. It should be stable for at least two years.

Celastrol is supplied as a crystalline solid. A stock solution may be made by dissolving the celastrol in an organic solvent purged with an inert gas. Celastrol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of celastrol in these solvents is approximately 10 mg/ml in ethanol and DMSO and 20 mg/ml in DMF.

Celastrol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, celastrol should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Celastrol has a solubility of approximately 1 mg/ml in a 1:10 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

A variety of natural products from plant sources, particularly flavonoids, have long been observed to have antioxidant activity with potential benefits for human health.¹⁻³ Antioxidant triterpenes are less common. Celastrol is a triterpenoid antioxidant compound isolated from the Chinese Thunder of God vine (*T. wilfordii*). In an isolated rat liver assay of lipid peroxidation, celastrol had an IC₅₀ of 7 μ M, equivalent to about 15 times the antioxidant potency of α -tocopherol.⁴

References

1. Frémont, L., Belguendouz, L., and Delpal, S. Antioxidant activity of resveratrol and alcohol-free wine polyphenols related to LDL oxidation and polyunsaturated fatty acids. *Life Sci.* **64**, 2511-2521 (1999).
2. Johnson, J.L. and Maddipati, K.R. Paradoxical effects of resveratrol on the two prostaglandin H synthases. *Prostaglandins and Other Lipid Mediators* **56**, 131-143 (1998).
3. Miller, N.J. and Rice-Evans, C. Antioxidant activity of resveratrol in red wine. *Clin. Chem.* **41**, 1789 (1995).
4. Sassa, H., Takaishi, Y., and Terada, H. The triterpene celastrol as a very potent inhibitor of lipid peroxidation in mitochondria. *Biochem. Biophys. Res. Commun.* **172(2)**, 890-897 (1990).

Related Products

Nordihydroguaiaretic Acid - Item No. 70300 • Phenethyl Caffaeate - Item No. 70750 • Rosmarinic Acid - Item No. 70900 • U-74389G - Item No. 75860 • Curcumin - Item No. 81025 • Curcumin (technical grade) - Item No. 81025.1

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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For further details, please refer to our **Warranty and Limitation of Remedy** located on our website and in our catalog.

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