

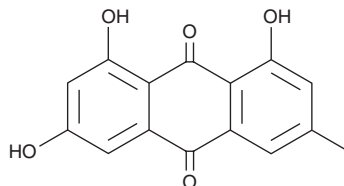
PRODUCT INFORMATION



Emodin

Item No. 13109

CAS Registry No.: 518-82-1
Formal Name: 1,3,8-trihydroxy-6-methyl-9,10-anthracenedione
Synonyms: Archin, Frangulic Acid, NSC 408120, NSC 622947, Schuttgelb
MF: C₁₅H₁₀O₅
FW: 270.2
Purity: ≥98%
UV/Vis.: λ_{max}: 222, 252, 266, 290, 437 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Emodin is supplied as a crystalline solid. A stock solution may be made by dissolving the emodin in the solvent of choice, which should be purged with an inert gas. Emodin is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of emodin in these solvents is approximately 3 and 5 mg/ml, respectively.

Emodin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, emodin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Emodin has a solubility of approximately 0.03 mg/ml in a 1:30 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Emodin is a naturally-occurring anthraquinone found in a variety of plants used in traditional Chinese medicine. Purified emodin has diverse effects, including the suppression of inflammation, dyslipidemia, and cancer.¹⁻³ At a molecular level, emodin directly and selectively inhibits casein kinase II (IC₅₀ = 0.89 μM).^{4,5} Through this action, it inhibits the COP9 signalosome, causing the stabilization of the tumor suppressor p53.⁵ Moreover, emodin acts as a phytoestrogen, binding human estrogen receptors and blocking 17β-estradiol binding with Ki values of 0.77 and 1.5 μM for ERα and ERβ, respectively.⁶

References

1. Tzeng, T.F., Lu, H.J., Liou, S.S., et al. *Evid. Based Complement. Alternat. Med.* 781812 (2012).
2. Alisi, A., Pastore, A., Ceccarelli, S., et al. *Int. J. Mol. Sci.* **13**(2), 2276-2289 (2012).
3. Lin, S.Z., Wei, W.T., Chen, H., et al. *PLoS One* **7**(8), 1-15 (2012).
4. Sarno, S., De Moliner, E., Ruzzene, M., et al. *Biochem. J.* **374**(Pt 3), 639-646 (2003).
5. Füllbeck, M., Huang, X., Dumdey, R., et al. *BMC Cancer* **5**(97), 1-14 (2005).
6. Matsuda, H., Shimoda, H., Morikawa, T., et al. *Bioorg. Med. Chem. Lett.* **11**(14), 1839-1842 (2001).

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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