

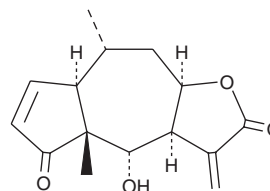
PRODUCT INFORMATION



Helenalin

Item No. 17050

CAS Registry No.: 6754-13-8
Formal Name: 3,3aS,4S,4aR,7aR,8R,9,9aR-octahydro-4-hydroxy-4a,8-dimethyl-3-methylene-azuleno[6,5-b]furan-2,5-dione
Synonym: NSC 85236
MF: C₁₅H₁₈O₄
FW: 262.3
Purity: ≥95%
UV/Vis.: λ_{max}: 223 nm
Supplied as: A powder
Storage: -20°C
Stability: ≥4 years
Special Conditions: Light sensitive



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

Laboratory Procedures

Helenalin is supplied as a powder. A stock solution may be made by dissolving the helenalin in the solvent of choice. Helenalin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of helenalin in these solvents is approximately 20 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of helenalin can be prepared by directly dissolving the powder in aqueous buffers. The solubility of helenalin in PBS, pH 7.2, is approximately 0.2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Helenalin is a sesquiterpene lactone first isolated from various species of *Arnica*. It has anti-inflammatory effects, most notably by inhibiting gene expression mediated by NF-κB at doses from 1 to 20 μM.^{1,2} Like other sesquiterpene lactones, helenalin can modify sulfhydryl groups of cysteine residues and it alkylates these groups on the p65 subunit of NF-κB.¹ It also suppresses the proliferation of cancer cells through multiple mechanisms, including the prevention of signaling through NF-κB.³⁻⁵ Helenalin has antibacterial and anti-protozoal activities.^{6,7}

References

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4. Zhao, L., Lee, J.Y., and Hwang, D.H. *Nutr. Rev.* **69**(6), 310-320 (2011).
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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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