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- Trockeneiszuschlag
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- Expressversand

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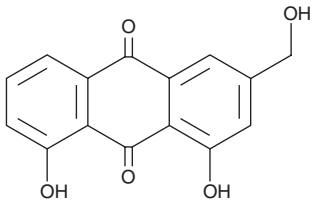
PRODUCT INFORMATION

Aloe-emodin

Item No. 11677

CAS Registry No.: 481-72-1
Formal Name: 1,8-dihydroxy-3-(hydroxymethyl)-9,10-anthracenedione
Synonyms: 3-Hydroxymethylchrysazine, NSC 38628, Rhabarberone
MF: $C_{15}H_{10}O_5$
FW: 270.2
Purity: ≥95%
UV/Vis.: λ_{max}: 225, 255, 285, 430 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

Aloe-emodin is supplied as a crystalline solid. A stock solution may be made by dissolving the aloe-emodin in the solvent of choice. Aloe-emodin is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of aloe-emodin in these solvents is approximately 2 and 5 mg/ml, respectively.

Aloe-emodin is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Aloe-emodin is a hydroxyanthraquinone found in *Aloe vera* leaves that has potent laxative action by inducing chloride secretion in colonic mucosa and releasing acetylcholine, which stimulates contraction of intestinal smooth muscle.[1] It also demonstrates anti-tumor activity (ED_{50}s = 1-13 µM), inducing apoptosis in various cancer cells by increasing the production of reactive oxygen species.[2,3] Aloe-emodin is reported to have estrogenic activity as a phytoestrogen and has been shown to inhibit breast cancer cell proliferation by downregulating ERα protein levels, and thus, suppressing transcriptional activation of the receptor.[4,5]

References

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2. Xie, M.-J., Ma, Y.-H., Miao, L., *et al. Asian Pac. J. Cancer Prev.* **15(13)**, 5201-5205 (2014).
3. Pecere, T., Gazzola, M.V., Mucignat, C., *et al. Cancer Res.* **60(11)**, 2800-2804 (2000).
4. Matsuda, H., Shimoda, H., Morikawa, T., *et al. Bioorg. Med. Chem. Lett.* **11(14)**, 1839-1842 (2001).
5. Huang, P.-H., Huang, C.-Y., Chen, M.-C., *et al. Evid. Based Complement. Alternat. Med.* **2013**, 1-12 (2013).

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