

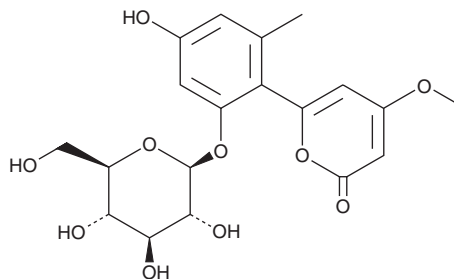
PRODUCT INFORMATION



Aloenin

Item No. 35859

CAS Registry No.: 38412-46-3
Formal Name: 6-[2-(β-D-glucopyranosyloxy)-4-hydroxy-6-methylphenyl]-4-methoxy-2H-pyran-2-one
Synonyms: Aloearbonaside, Aloenin A
MF: C₁₉H₂₂O₁₀
FW: 410.4
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/Aloe sp.



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

Laboratory Procedures

Aloenin is supplied as a solid. A stock solution may be made by dissolving the aloenin in the solvent of choice, which should be purged with an inert gas. Aloenin is soluble in acetone, chloroform, dichloromethane, DMSO, and ethyl acetate.

Description

Aloenin is a polyketide synthase-derived glucoside that has been found in *Aloe* and has diverse biological activities.¹⁻⁶ It is an inhibitor of pancreatic lipase (IC₅₀ = 14.95 μg/ml) and β-secretase (BACE).^{3,4} Aloenin is also an inhibitor of alcohol dehydrogenase (ADH) and aldehyde dehydrogenase (ALDH; IC₅₀s = 33.1 and 27 μM, respectively, for the rat enzymes).² It is active against antimony-sensitive *L. donovani* promastigotes (IC₅₀ = 26 μM).⁵ Aloenin (100 mg/kg) inhibits the secretion of gastric juice in rats by 23%.⁶

References

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2. Shin, K.H., Woo, W.S., Chung, H.S., *et al.* Isolation of ethanol metabolizing enzyme inhibitors from *Aloe* spp. *Nat. Prod. Sci.* **1(1)**, 55-60 (1995).
3. Deora, N. and Venkatraman, K. Lipase activity inhibited by aloenin A: Glycoside from *Aloe vera* (L.) Burm. f.-In vitro and molecular docking studies. *J. Mol. Recognit.* **36(2)**, e3002 (2023).
4. Gao, B., Yao, C.-S., Zhou, J.-Y., *et al.* Active constituents from *Aloe arborescens* as BACE inhibitors. *Yao Xue Xue Bao* **41(10)**, 1000-1003 (2006).
5. Andima, M., Ndakala, A., Derese, S., *et al.* Antileishmanial and cytotoxic activity of secondary metabolites from *Tabernaemontana ventricosa* and two *aloe* species. *Nat. Prod. Res.* **36(5)**, 1365-1369 (2022).
6. Hirata, T. and Suga, T. Structure of aloenin, a new biologically-active bitter glucoside from *Aloe arborescens* var. *natalensis*. *B. Chem. Soc. Jpn.* **51(3)**, 842-849 (1978).

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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