

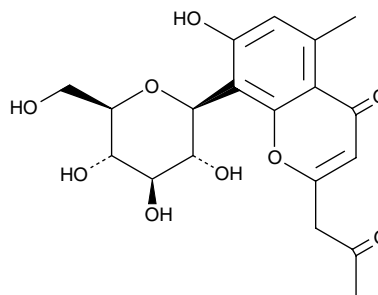
Product Information



Aloesin

Item No. 14649

CAS Registry No.: 30861-27-9
Formal Name: 8-β-D-glucopyranosyl-7-hydroxy-5-methyl-2-(2-oxopropyl)-4H-1-benzopyran-4-one
MF: C₁₉H₂₂O₉
FW: 394.4
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 215, 245, 253, 295 nm



Laboratory Procedures

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

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

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 aloesin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of aloesin in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Aloesin is a C-glycosylated chromone compound found in aloe (*Liliaceae*) that inhibits tyrosinase (IC₅₀ = 0.9 mM), an enzyme responsible for catalyzing the first step of the conversion of tyrosine to melanin.¹ Derivatives of aloesin have been shown to exhibit free radical scavenging and anti-inflammatory activity.² The antihyperpigmenting effects of aloesin have been explored in melanocytes.³

References

1. Piao, L.Z., Park, H.R., Park, Y.K., *et al.* Mushroom tyrosinase inhibition activity of some chromones. *Chem. Pharm. Bull. (Tokyo)* **50**(3), 309-311 (2002).
2. Yagi, A. and Takeo, S. Anti-inflammatory constituents, aloesin and aloemannan in aloe species and effects of tanshinon VI in *Salvia miltiorrhiza* on heart. *Yakugaku Zasshi* **123**(7), 517-532 (2003).
3. Kim, H., Choi, H.-R., Kim, D.-S., *et al.* Topical hypopigmenting agents for pigmentary disorders and their mechanisms of action. *Ann. Dermatol.* **24**(1), 1-6 (2012).

Related Products

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