

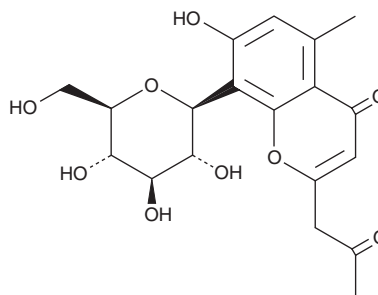
# PRODUCT INFORMATION



## 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:** C<sub>19</sub>H<sub>22</sub>O<sub>9</sub>  
**FW:** 394.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 215, 245, 253, 295 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

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

### Description

Aloesin is a C-glycosylated chromone compound found in aloe (Liliaceae) that inhibits tyrosinase (IC<sub>50</sub> = 0.9 mM), an enzyme responsible for catalyzing the first step of the conversion of tyrosine to melanin.<sup>1</sup> Derivatives of aloesin have been shown to exhibit free radical scavenging and anti-inflammatory activity.<sup>2</sup> The antihyperpigmenting effects of aloesin have been explored in melanocytes.<sup>3</sup>

### 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).

#### 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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