

PRODUCT INFORMATION

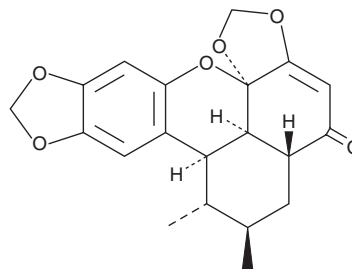


Sauchinone

Item No. 19577

CAS Registry No.: 177931-17-8
Formal Name: (5aR,7R,8S,8aR,14aS,14bR)-5a,6,7,8,8a,14b-hexahydro-7,8-dimethyl-5H-benzo[k]bis[1,3]dioxolo[4,5-b:4',5'-g]xanthen-5-one

MF: C₂₀H₂₀O₆
FW: 356.4
Purity: ≥98%
UV/Vis.: λ_{max}: 238, 299 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Saururaceae*



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

Laboratory Procedures

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

Sauchinone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, sauchinone should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Sauchinone has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Sauchinone is a lignan that has been found in *S. chinensis* and has diverse biological activities.¹⁻⁴ It inhibits LPS-induced expression of the genes encoding inducible nitric oxide synthase (iNOS), TNF-α, and COX-2 (IC₅₀s = ≤10 μM for all), as well as LPS-induced activation of NF-κB and nuclear translocation of NF-κB p65 in RAW 264.7 cells.⁵ Sauchinone reduces hydrogen peroxide-induced increases in heat shock protein 70 (Hsp70) levels and cell death in C2C12 mouse skeletal muscle myoblasts.² *In vivo*, sauchinone (10 and 30 mg/kg) reduces hepatic formation of thiobarbituric acid reactive substances (TBARS), plasma levels of alanine aminotransferase (ALT), and hepatocyte cell death in a mouse model of iron overload-induced liver injury.⁶ Sauchinone (10 mg/kg) reduces infarct size and heart levels of phosphorylated p38 MAPK and JNK in a rat model of myocardial ischemia-reperfusion injury.⁴

References

1. Lee, A.K., Sung, S.H., Kim, Y.C., et al. *Br. J. Pharmacol.* **139**, 11-20 (2003).
2. Jung, M.-H., Song, M.-C., Bae, K., et al. *Biol. Pharm. Bull.* **34(4)**, 575-579 (2011).
3. Kim, Y.W., Lee, S.M., Shin, S.M., et al. *Free Radic. Biol. Med.* **47(7)**, 1082-1092 (2009).
4. Kim, S.J., Jeong, C.W., Bae, H.B., et al. *J. Korean Med. Sci.* **27(5)**, 572-575 (2012).
5. Bhandari, K., Srivastava, S., and Shankar, G. *Bioorg. Med. Chem.* **12(15)**, 4189-4196 (2004).
6. Kim, Y.W., Lee, S.M., Shin, S.M., et al. *Free Radic. Biol. Med.* **47(7)**, 1082-1092 (2009).

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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