PRODUCT INFORMATION



Licochalcone A

Item No. 11853

CAS Registry No.: 58749-22-7

Formal Name: (2E)-3-[5-(1,1-dimethyl-2-propen-1-

yl)-4-hydroxy-2-methoxyphenyl]-1-(4-

hydroxyphenyl)-2-propen-1-one

MF: $C_{21}H_{22}O_4$ 338.4 FW: **Purity:** ≥95%

UV/Vis.: λ_{max} : 212, 252, 315, 377 nm

Supplied as: A crstalline 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

Licochalcone A is supplied as a crystalline solid. A stock solution may be made by dissolving the licochalcone A in the solvent of choice. Licochalcone A is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of licochalcone A in these solvents is approximately 20, 15, and 25 mg/ml, respectively.

Licochalcone A 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

Licochalcone A is a natural chalcone first identified in roots and rhizomes of licorice (Glycyrrhiza spp.). It has anti-inflammatory actions, supporting its use as a skin lightening agent, particularly for rosacea and atopic dermatitis. $^{1-3}$ Licochalcone A (10-50 μ M) induces apoptosis and suppresses migration and invasion of cancer cells in vitro.^{4,5} It also has antibacterial properties against spore-forming bacteria (MIC = 2-15 µg/ml) and anti-parasitic actions (IC₅₀ = 2 μ g/ml).^{6,7}

References

- 1. Smit, N., Vicanova, J., and Pavel, S. Int. J. Mol. Sci. 10(12), 5326-5349 (2009).
- 2. Angelova-Fischer, I., Neufang, G., Jung, K., et al. J. Eur. Acad. Dermatol. Venereol. 28(Suppl 3), 9-15 (2014).
- 3. Weber, T.M., Ceilley, R.I., Buerger, A., et al. J. Cosmet. Dermatol. 5, 227-232 (2006).
- 4. Yuan, X., Li, D., Zhao, H., et al. Biomed. Res. Int. 2013, 1-9 (2013).
- 5. Tsai, J.-P., Hsiao, P.-C., Yang, S.-F., et al. PLoS One 9(1), 1-12 (2014).
- Tsukiyama, R.-I., Katsura, H., Tokuriki, N., et al. Antimicrob. Agents Chemother. 46(5), 1226-1230 (2002).
- 7. Ziegler, H.L., Hansen, H.S., Staerk, D., et al. Antimicrob. Agents Chemother. 48(10), 4067-4071 (2004).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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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