

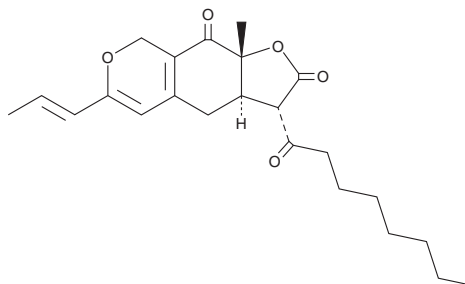
PRODUCT INFORMATION



Ankaflavin

Item No. 39546

CAS Registry No.: 50980-32-0
Formal Name: (3S,3aR,9aR)-3a,4,8,9a-tetrahydro-(1-oxooctyl)-6-(1E)-1-propen-1-yl-2H-furo[3,2-g][2]benzopyran-2,9(3H)-dione
MF: C₂₃H₃₀O₅
FW: 386.5
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Fungus/*Monascus* sp.



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

Laboratory Procedures

Ankaflavin is supplied as a solid. A stock solution may be made by dissolving the ankaflavin in the solvent of choice, which should be purged with an inert gas. Ankaflavin is soluble in methanol.

Description

Ankaflavin is a microbial metabolite that has been found in *M. ruber* and has diverse biological activities.¹⁻³ It induces cytotoxicity in HepG2 hepatic carcinoma and A549 lung cancer cells (IC₅₀ = ~15 µg/ml for both).¹ Ankaflavin (15 µg/ml) induces cell cycle arrest at the G₀ phase in HepG2 cells. It reduces nitric oxide (NO) production in LPS-stimulated RAW 264.7 macrophages when used at concentrations of 5, 10, and 15 µg/ml.² Ankaflavin (10 µM) increases lipolysis in 3T3-L1 adipocytes matured by isobutylmethylxanthine (IBMX; Item No. 13347), dexamethasone (Item No. 11015), and insulin.³ *In vivo*, ankaflavin (5 mg/kg per day) reduces blood glucose and serum insulin levels in mice fed a high-fat diet.

References

1. Su, N.-W., Lin, Y.-L., Lee, M.-H., *et al.* Ankaflavin from *Monascus*-fermented red rice exhibits selective cytotoxic effect and induces cell death on Hep G2 cells. *J. Agric. Food Chem.* **53(6)**, 1949-1954 (2005).
2. Hsu, L.-C., Hsu, Y.-W., Liang, Y.-H., *et al.* Anti-tumor and anti-inflammatory properties of ankaflavin and monaphilone A from *Monascus purpureus* NTU 568. *J. Agric. Food Chem.* **59(4)**, 1124-1130 (2011).
3. Hsu, W.-H., Liao, T.-H., Lee, B.-H., *et al.* Ankaflavin regulates adipocyte function and attenuates hyperglycemia caused by high-fat diet via PPAR-γ activation. *J. Funct. Foods* **5(1)**, (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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