

Product Data Sheet

Product Name: Bikaverin

Cat. No.: GC45391

Chemical Properties

Cas. No. 33390-21-5

SMILES O=C(C=C1OC)C2=C(C(O)=C(OC(C=C(OC)C=C3C)=C3C4=O)C4=C2O)C1=O

Formula C₂₀H₁₄O₈

M.Wt 382.3

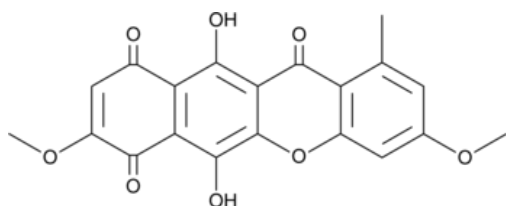
Solubility Soluble in DMSO

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Bikaverin is a fungal metabolite originally isolated from *F. oxysporum* f. sp. *lycopersici* that has diverse biological activities, including antiprotozoal, nematocidal, antiproliferative, and fungicidal properties.^{1,2,3,4} It is active against *L. braziliensis* when used at a concentration of 0.15 µg/ml and against *B. xylophilus* at a concentration of 100 µg/ml.² It inhibits proliferation of NCI-H460, MIA PaCa-2, MCF-7, and SF-268 cells (IC₅₀s = 0.43, 0.26, 0.42, and 0.38 µM, respectively).³ Bikaverin inhibits the growth of certain plant pathogenic fungi, including *R. solani*, *P. capsici*, *P. infestans*, and *M. grisea* (IC₅₀s = <1.2, 10, 60, and 70 µg/ml, respectively).⁴ It inhibits the development and provides disease control of tomato late blight and wheat leaf rust caused by *P. infestans* and *P. recondita*, respectively, when applied at a concentration of 300 µg/ml.

References

1. Nord, F.F. Structure of some *Fusarium* pigments and their action. Intern. Congr. Biochem., Abstrs. of Communs. 1st Congr. Cambridge, Engl. 243-244 (1949).

Caution: Product has not been fully validated for medical applications. For research use only.

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2. LimOn, M.C., Rodriguez-Ortiz, R., and Avalos, J. Bikaverin production and applications. Appl. Microbiol. Biotechnol. 87(1), 21-29 (2010).
3. Zhan, J., Burns, A.M., Liu, M.X., et al. Search for cell motility and angiogenesis inhibitors with potential anticancer activity: Beauvericin and other constituents of two endophytic strains of Fusarium oxysporum. J. Nat. Prod. 70(2), 227-232 (2007).
4. Son, S.W., Kim, H.Y., Choi, G.J., et al. Bikaverin and fusaric acid from Fusarium oxysporum show antioomycete activity against Phytophthora infestans. J. Appl. Microbiol. 104(3), 692-698 (2008).

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