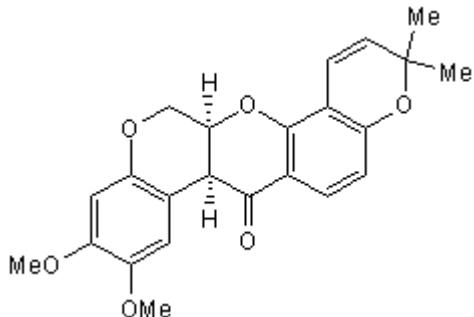


Certificate of Analysiswww.tocris.com**Product Name:** Deguelin**Catalog No.:** 1770**Batch No.:** 2

CAS Number: 522-17-8

IUPAC Name: (7aS,13aS)-13,13a-Dihydro-9,10-dimethoxy-3,3-dimethyl-3H-bis[1]benzopyrano[3,4-b:6',5'-e]pyran-7(7aH)-one

1. PHYSICAL AND CHEMICAL PROPERTIES**Batch Molecular Formula:** C₂₃H₂₂O₆·½H₂O**Batch Molecular Weight:** 398.92**Physical Appearance:** Cream solid**Solubility:** ethanol to 50 mM
DMSO to 100 mM**Storage:** Store at -20°C**Batch Molecular Structure:****2. ANALYTICAL DATA****TLC:** R_f = 0.8 (Dichloromethane:Methanol [9:1])**HPLC:** Shows 97.1% purity**¹H NMR:** Consistent with structure**Microanalysis:** Carbon Hydrogen Nitrogen

Theoretical 69.25 5.68

Found 69.56 5.63

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of Worldwww.tocris.com/distributors

Tel: +1 612 379 2956

Product Name: Deguelin

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Description:

Anticancer and antiviral agent; chemopreventive and pro-apoptotic. Inhibits phorbol ester-induced ornithine decarboxylase and NADH:ubiquinone oxidoreductase activities (IC₅₀ values are 11 and 6.9 nM respectively). Inhibits PI 3-kinase and reduces pAkt levels in pre-malignant and malignant human bronchial epithelial cells. Active in vivo.

Physical and Chemical Properties:

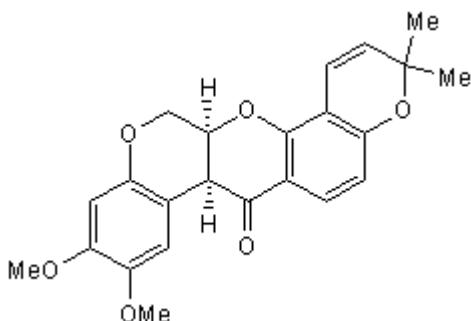
Batch Molecular Formula: C₂₃H₂₂O_{6.1/4}H₂O

Batch Molecular Weight: 398.92

Physical Appearance: Cream solid

Minimum Purity: >97%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

ethanol to 50 mM

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Takatsuki et al (1969) Antiviral and antitumor antibiotics. XX. Effects of rotenone, deguelin, and related compounds on animal and plant viruses. *Appl.Microbiol.* **18** 660. PMID: 4312925.

Udeani et al (1997) Cancer chemopreventive activity mediated by deguelin, a naturally occurring rotenoid. *Cancer Res.* **57** 3424. PMID: 9270008.

Fang and Casida (1998) Anticancer action of cube insecticide: correlation for rotenoid constituents between inhibition of NADH:ubiquinone oxidoreductase and induced ornithine decarboxylase activities. *Proc.Natl.Acad.Sci.U.S.A.* **95** 3380. PMID: 9520374.

Chun et al (2003) Effects of deguelin on the phosphatidylinositol 3-kinase/Akt pathway and apoptosis in premalignant human bronchial epithelial cells. *J.Natl.Cancer Inst.* **95** 291. PMID: 12591985.

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bio-technne.com

info@bio-technne.com

techsupport@bio-technne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-technne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

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Tel: +1 612 379 2956