

Product Data Sheet

Product Name: Precocene II

Cat. No.: GC47969

Chemical Properties

Cas. No. 644-06-4

SMILES CC1(C)C=CC2=CC(OC)=C(OC)C=C2O1

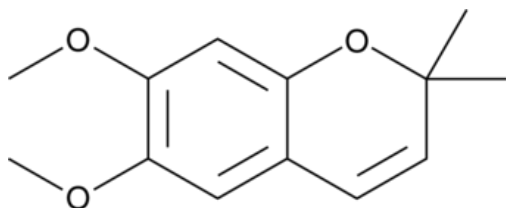
Formula C₁₃H₁₆O₃ M.Wt 220.3

Solubility DMSO : 100 mg/mL (454.01 mM; ultrasonic and warming and heat to 80°C) 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

Precocene II is a chromene that has been found in *A. houstonianum* and has anti-juvenile hormone activity.^{1,2,3} It inhibits juvenile hormone biosynthesis in isolated spontaneously active cockroach (*P. americana*) corpora allata when used at concentrations of 1 mM or higher.¹ Precocene II (8 µg/cm² coating in Petri dish) inhibits development of the corpus allatum in newly eclosed female milkweed bugs and causes allatal regression when applied 120 hours post-eclosion in normally developing females.² It induces precocious metamorphosis in milkweed bug second-stage nymphs when applied as a coating to Petri dishes at concentrations of 0.4 and 0.7 µg/cm².³ Precocene II inhibits ovarian development in various insects, including milkweed bugs, cotton stainers, apple maggots, and Mexican bean beetles. Precocene II also inhibits production of the trichothecene mycotoxin 3-acetyldeoxy nivalenol in *F. graminearum* (IC₅₀ = 1.2 µM) without inhibiting fungal growth.⁴

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

1. Pratt, G.E., and Bowers, W.S. Precocene II inhibits juvenile hormone biosynthesis by cockroach corpora allata in vitro. *Nature* 265(5594):548-550 (1977)
2. Bowers, W.S., and Martinez-Pardo, R. Antiallatotropins: Inhibition of corpus allatum development. *Science* 197(4311):1369-1371 (1977)
3. Bowers, W.S., Ohta, T., Cleere, J.S., et al. Discovery of insect anti-juvenile hormones in plants. *Science* 193(4253):542-547 (1976)
4. Sakuda, S. Mycotoxin production inhibitors from natural products. *Mycotoxins* 60(2):79-86 (2010)

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA