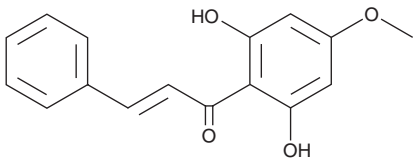
PRODUCT INFORMATION

Pinostrobin Chalcone

Item No. 43023

CAS Registry No.: 18956-15-5
Formal Name: (2E)-1-(2,6-dihydroxy-4-methoxyphenyl)-3-phenyl-2-propen-1-one
Synonyms: 2′,6′-Dihydroxy 4′-methoxychalcone, DMC
MF: $C_{16}H_{14}O_4$
FW: 270.3
Purity: ≥98%
Supplied as: A 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

Pinostrobin chalcone is supplied as a solid. A stock solution may be made by dissolving the pinostrobin chalcone in the solvent of choice, which should be purged with an inert gas. Pinostrobin chalcone is soluble (≥10 mg/ml) in ethanol and DMSO.

Description

Pinostrobin chalcone is a chalcone that has been found in *H. cymosum* and has diverse biological activities.[1-4] It reduces ferric to ferrous iron in a ferric reducing antioxidant power (FRAP) assay (IC_{50} = 334 µM).[1] Pinostrobin chalcone is an inhibitor of α-glucosidase (IC_{50} = 12.94 µM). It decreases the proliferation of *L. amazonensis* promastigotes when used at a concentration of 1 µg/ml.[2] Pinostrobin chalcone is cytotoxic to KB squamous cell carcinoma, MCF-7 breast, Ca Ski cervical, and HCT116 colorectal cancer cells (IC_{50}s = 6.2, 7.3, 7.7, and 54.1 µM, respectively).[3] It inhibits LPS-induced increases in TNF-α and IL-1β in J774A.1 macrophages (IC_{50}s = 69 and 43 µM, respectively).[4]

References

1. Jadalla, B.M.I.S., Moser, J.J., Sharma, R., *et al.* In vitro alpha-glucosidase and alpha-amylase inhibitory activities and antioxidant capacity of *Helichrysum cymosum* and *Helichrysum pandurifolium* schrank constituents. *Separations* **9(8)**, 190 (2022).
2. Torres-Santos, E.C., Moreira, D.L., Kaplan, M.A., *et al.* Selective effect of 2',6'-dihydroxy-4'-methoxychalcone isolated from *Piper aduncum* on *Leishmania amazonensis*. *Antimicrob Agents Chemother.* **43(5)**, 1234-1241 (1999).
3. Malek, S.N., Phang, C.W., Ibrahim, H., *et al.* Phytochemical and cytotoxic investigations of *Alpinia mutica* rhizomes. *Molecules* **16(1)**, 583-589 (2011).
4. Patel, N.K. and Bhutani, K.K. Pinostrobin and Cajanus lactone isolated from *Cajanus cajan* (L.) leaves inhibits TNF-α and IL-1 production: *In vitro* and *in vivo* experimentation. *Phytomedicine* **21(7)**, 946-953 (2014).

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