

Product Data Sheet

Product Name: Griseofulvin-d3

Cat. No.: GC48688

Chemical Properties

Cas. No. 1279033-22-5

SMILES C[C@H](C1)[C@](C(C2=C3OC)=O)(OC2=C(C(OC)=C3)Cl)C(OC([2H])([2H])[2H])=CC1=O

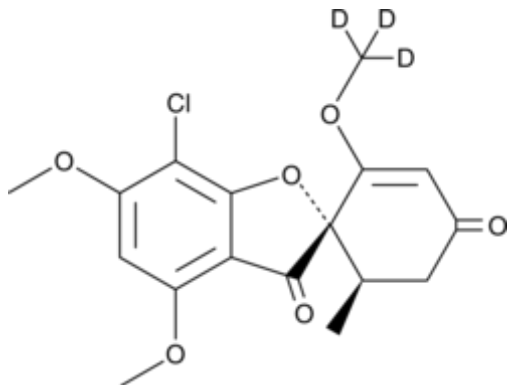
Formula C₁₇H₁₄ClD₃O₆ M.Wt 355.8

Solubility Acetonitrile: soluble, DMF: Storage -20°C
soluble, DMSO: soluble, Methanol:
soluble

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

Griseofulvin-d₃ is intended for use as an internal standard for the quantification of griseofulvin by GC- or LC-MS. Griseofulvin is a fungal metabolite that has been found in *Penicillium* and has diverse biological activities.¹ It is active against clinical isolates of the dermatophytes *T. rubrum*, *T. tonsurans*, and *M. canis* (MICs = 0.0078-0.0156, 1-4, and 0.5-2 µg/ml, respectively).² Griseofulvin binds to tubulin (K_D = 300 µM) and reduces the growth rate and shortening rate of isolated bovine

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

brain microtubulin, indicating stabilization of microtubule dynamics, when used at concentrations ranging from 0.5 to 20 μM .³ It induces abnormal microtubule polymerization and cell cycle arrest at the G₂/M phase in HT-29 cells when used at a concentration of 20 μM .⁴ Griseofulvin (30 mg/kg), alone or in combination with nocodazole, reduces tumor growth in a COLO 205 mouse xenograft model. Formulations containing griseofulvin have been used in the treatment of fungal infections.

1.Singh, P., Rathinasamy, K., Mohan, R., et al.Microtubule assembly dynamics: An attractive target for anticancer drugsIUBMB Life60(6)368-375(2008) 2.Brilhante, R.S.N., Correia, E.E.M., Guedes, G.M.M., et al.In vitro activity of azole derivatives and griseofulvin against planktonic and biofilm growth of clinical isolates of dermatophytesMycoses61(7)449-454(2018) 3.Panda, D., Rathinasamy, K., Santra, M.K., et al.Kinetic suppression of microtubule dynamic instability by griseofulvin: Implications for its possible use in the treatment of cancerProc. Natl. Acad. Sci. USA102(28)9878-9883(2005) 4.Ho, Y.-S., Duh, J.-S., Jeng, J.-H., et al.Griseofulvin potentiates antitumorigenesis effects of nocodazole through induction of apoptosis and G2/M cell cycle arrest in human colorectal cancer cellsInt. J. Cancer91(3)393-401(2001)

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