

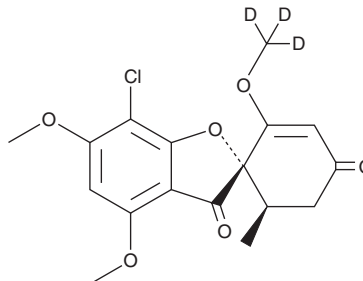
PRODUCT INFORMATION



Griseofulvin-d₃

Item No. 33366

CAS Registry No.: 1279033-22-5
Formal Name: 7-chloro-4,6-dimethoxy-2'-(methoxy-d₃)-6'R-methyl-spiro[benzofuran-2(3H),1'S-[2]cyclohexene]-3,4'-dione
MF: C₁₇H₁₄ClD₃O₆
FW: 355.8
Chemical Purity: ≥98% (Griseofulvin)
Deuterium
Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Griseofulvin-d₃ is intended for use as an internal standard for the quantification of griseofulvin (Item No. 19461) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Griseofulvin-d₃ is supplied as a solid. A stock solution may be made by dissolving the griseofulvin-d₃ in the solvent of choice, which should be purged with an inert gas. Griseofulvin-d₃ is soluble in methanol, DMSO, dimethyl formamide, and acetonitrile.

Description

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 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 (Item No. 13857), reduces tumor growth in a COLO 205 mouse xenograft model. Formulations containing griseofulvin have been used in the treatment of fungal infections.

References

1. Singh, P., Rathinasamy, K., Mohan, R., *et al.* *IUBMB Life* **60**(6), 368-375 (2008).
2. Brilhante, R.S.N., Correia, E.E.M., Guedes, G.M.M., *et al.* *Mycoses* **61**(7), 449-454 (2018).
3. Panda, D., Rathinasamy, K., Santra, M.K., *et al.* *Proc. Natl. Acad. Sci. USA* **102**(28), 9878-9883 (2005).
4. Ho, Y.-S., Duh, J.-S., Jeng, J.-H., *et al.* *Int. J. Cancer* **91**(3), 393-401 (2001).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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