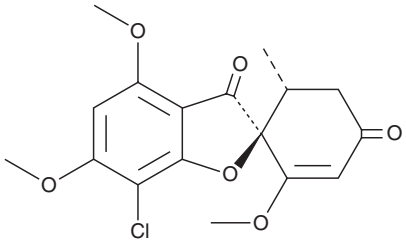
PRODUCT INFORMATION

Griseofulvin

Item No. 19461

CAS Registry No.:	126-07-8
Formal Name:	7-chloro-2',4,6-trimethoxy-6'R-methyl-spiro[benzofuran-2(3H)-1'S-[2]cyclohexene]-3,4'-dione
MF:	$C_{17}H_{17}ClO_6$
FW:	352.8
Purity:	≥98%
UV/Vis.:	λ_{max}: 210, 291 nm
Supplied as:	A crystalline 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 is supplied as a crystalline solid. A stock solution may be made by dissolving the griseofulvin in the solvent of choice, which should be purged with an inert gas. Griseofulvin is slightly soluble in chloroform and ethyl acetate.

Description

Griseofulvin is a polyketide synthase-derived fungal metabolite originally isolated from *P. griseofulvum* with antifungal and anticancer activities.[1,2] It inhibits microtubule assembly when used at concentrations ranging from 20 to 200 µM.[3] Griseofulvin is active against a variety of dermatophytes (MICs = 0.14-0.42 µg/ml) and reduces the number of infected hair follicles in a guinea pig model of *M. canis* infection when administered at a dose of 60 mg/kg.[4,5] It also reduces viability of a variety of human colorectal cancer cells *in vitro* and induces abnormal mitotic spindle formation and cell cycle arrest at the G_2/M phase in HT-29 cells when used at a concentration of 20 µM.[6] Griseofulvin (50 mg/kg) reduces tumor growth in a COLO 205 mouse xenograft model. Formulations containing griseofulvin have been used in the treatment of dermatophyte infections of the skin and nails.

References

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2. Flint, A., Forsey, R.R., and Usher, B. Griseofulvin, a new oral antibiotic for the treatment of fungous infections of the skin. *Can. Med. Assoc. J.* **81(3)**, 173-175 (1959).
3. Roobol, A., Gull, K., and Pogson, C.I. Inhibition by griseofulvin of microtubule assembly in vitro. *FEBS Lett.* **67(3)**, 248-251 (1976).
4. Roth, F.J., Jr., Sallman, B., and Blank, H. *In vitro* studies of the antifungal antibiotic griseofulvin. *J. Invest. Dermatol.* **33**, 403-418 (1959).
5. Gentles, J.C. Experimental ringworm in guinea pigs: Oral treatment with griseofulvin. *Nature* **182(4633)**, 476-477 (1958).
6. 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 cells. *Int. J. Cancer* **91(3)**, 393-401 (2001).

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