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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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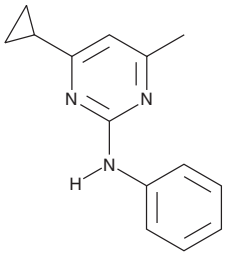
PRODUCT INFORMATION

Cyprodinil

Item No. 24233

CAS Registry No.: 121552-61-2
Formal Name: 4-cyclopropyl-6-methyl-N-phenyl-2-pyrimidinamine
MF: $C_{14}H_{15}N_3$
FW: 225.3
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Cyprodinil is supplied as a solid. A stock solution may be made by dissolving the cyprodinil in the solvent of choice, which should be purged with an inert gas. Cyprodinil is slightly soluble in chloroform.

Description

Cyprodinil is an anilinopyrimidine broad-spectrum fungicide that inhibits the biosynthesis of methionine in phytopathogenic fungi.[1] It inhibits mycelial cell growth of *B. cinerea*, *P. herpotrichoides*, and *H. oryzae* on amino acid-free media (IC_{50}s = 0.44, 4.8, and 0.03 µM, respectively), an effect that is reversed by addition of methionine or homocysteine. In an MDA-kb2 assay, cyprodinil acts as an androgen receptor (AR) agonist (EC_{20} = 1.91 µM) in the absence of the AR agonist DHT and inhibits the androgenic effect of DHT (IC_{20} = 15.1 µM).[2] It is cytotoxic in a yeast antiandrogen screen (YAS; EC_{20} = 27.8 µM) but not in an MDA-kb2 assay (EC_{20} = >50 µM). Cyprodinil increases proliferation of estrogen receptor-expressing BG-1 ovarian cancer cells when used at low micromolar concentrations in combination with 17β-estradiol.[3] It also increases tumor mass in a BG-1 ovariectomized mouse xenograft model after 70 days when administered at a dose of 3 mg/kg every three days. Formulations containing cyprodinil have been used in the control of fungi in agriculture.

References

1. Masner, P., Muster, P., and Schmid, J. Possible methionine biosynthesis inhibition by pyrimidinamine fungicides. *Pestic. Sci.* **42(3)**, 163-166 (1994).
2. Orton, F., Rosivatz, E., Scholze, M., *et al.* Widely used pesticides with previously unknown endocrine activity revealed as *in vitro* antiandrogens. *Environ. Health Perspect.* **119(6)**, 794-800 (2011).
3. Go, R.-E., Kim, C.-W., and Choi, K.-C. Effect of fenhexamid and cyprodinil on the expression of cell cycle- and metastasis-related genes *via* an estrogen receptor-dependent pathway in cellular and xenografted ovarian cancer models. *Toxicol. Appl. Pharmacol.* **289(1)**, 48-57 (2015).

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