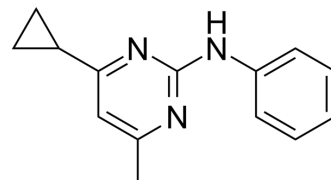


## Cyprodinil

|                           |  |       |         |
|---------------------------|--|-------|---------|
| <b>Cat. No.:</b>          | HY-116214  |       |         |
| <b>CAS No.:</b>           | 121552-61-2  |       |         |
| <b>Molecular Formula:</b> | C <sub>14</sub> H <sub>15</sub> N <sub>3</sub>     |       |         |
| <b>Molecular Weight:</b>  | 225.29   |       |         |
| <b>Target:</b>            | Fungal; Androgen Receptor                          |       |         |
| <b>Pathway:</b>           | Anti-infection; Vitamin D Related/Nuclear Receptor |       |         |
| <b>Storage:</b>           | Powder   | -20°C | 3 years |
|                           |  | 4°C   | 2 years |
|                           | In solvent   | -80°C | 2 years |
|                           |  | -20°C | 1 year  |



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (443.87 mM; Need ultrasonic)

| Concentration             | Solvent | Mass      |            |            |
|---------------------------|---------|-----------|------------|------------|
|                           |         | 1 mg      | 5 mg       | 10 mg      |
| Preparing Stock Solutions | 1 mM    | 4.4387 mL | 22.1936 mL | 44.3872 mL |
|                           | 5 mM    | 0.8877 mL | 4.4387 mL  | 8.8774 mL  |
|                           | 10 mM   | 0.4439 mL | 2.2194 mL  | 4.4387 mL  |

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: 2.5 mg/mL (11.10 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (11.10 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Cyprodinil is an anilinopyrimidine broad-spectrum fungicide that inhibits the biosynthesis of methionine in phytopathogenic fungi. Cyprodinil inhibits mycelial cell growth of *B. cinerea*, *P. herpotrichoides*, and *H. oryzae* on amino acid-free media (IC<sub>50</sub>s=0.44, 4.8, and 0.03 μM, respectively). Cyprodinil acts as an androgen receptor (AR) agonist (EC<sub>50</sub>=1.91 μM) in the absence of the AR agonist DHT and inhibits the androgenic effect of DHT (IC<sub>50</sub>=15.1 μM).

### REFERENCES

- [1]. Masner, P., et al. Possible methionine biosynthesis inhibition by pyrimidinamine fungicides. *Pestic. Sci.* 42(3),163-166 (1994).

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[2]. Frances Orton, et al. Widely used pesticides with previously unknown endocrine activity revealed as in vitro antiandrogens. Environ Health Perspect. 2011 Jun;119(6):794-800.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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