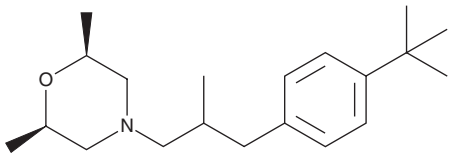
PRODUCT INFORMATION

Fenpropimorph

Item No. 20875

CAS Registry No.: 67564-91-4
Formal Name: (2R,6S)-*rel*-4-[3-[4-(1,1-dimethylethyl) phenyl]-2-methylpropyl]-2,6-dimethyl-morpholine
Synonym: BAS 42100F
MF: $C_{20}H_{33}NO$
FW: 303.5
Purity: ≥98%
UV/Vis.: λ_{max}: 218, 263, 271 nm
Supplied as: A neat oil
Storage: -20°C
Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

Fenpropimorph is supplied as a neat oil. A stock solution may be made by dissolving the fenpropimorph in the solvent of choice. Fenpropimorph is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of fenpropimorph in ethanol and DMF is approximately 15 mg/ml and approximately 5 mg/ml in DMSO.

Fenpropimorph is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, fenpropimorph should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Fenpropimorph has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Fenpropimorph is a fungicide that inhibits the sterol pathway.[1] It inhibits Δ^8-Δ^7-sterol isomerase in yeast at low concentrations, with Δ^{14}-sterol reductase being blocked at higher levels, preventing the biosynthesis of ergosterol (Item No. 19850).[2] Fenpropimorph is also able to inhibit sterol synthesis in certain plants and mammalian cells.[1,3]

References

1. Costet, M.F., Achouri, M.E., Charlet, M., *et al.* Ecdysteroid biosynthesis and embryonic development are disturbed in insects (*Locusta migratoria*) reared on plant diet (*Triticum sativum*) with a selectively modified sterol profile. *Proc. Natl. Acad. Sci. USA* **84(3)**, 643-647 (1987).
2. Marcireau, C., Guilloton, M., and Karst, F. *In vivo* effects of fenpropimorph on the yeast *Saccharomyces cerevisiae* and determination of the molecular basis of the antifungal property. *Antimicrob. Agents Chemother.* **34(6)**, 989-993 (1990).
3. Corio-Costet, M.F., Gerst, N., Benveniste, P., *et al.* Inhibition by the fungicide fenpropimorph of cholesterol biosynthesis in 3T3 fibroblasts. *Biochem J.* **256(3)**, 829-834 (1988).

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