Carboxin

Cat. No.: HY-B2064

CAS No.: 5234-68-4

Molecular Formula: $C_{12}H_{13}NO_2S$

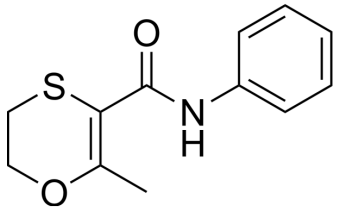
Molecular Weight: 235.3

Target: Fungal; Antibiotic

Pathway: Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (424.99 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.2499 mL	21.2495 mL	42.4989 mL
5 mM	0.8500 mL	4.2499 mL	8.4998 mL
10 mM	0.4250 mL	2.1249 mL	4.2499 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (10.62 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (10.62 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (10.62 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Carboxin (Carboxine) is a systemic agricultural fungicide and seed protectant.

In Vitro

Carboxin (Carboxine) is a systemic fungicide from the oxathiin class of agents. Carboxin demonstrates high specificity against the fungal class Basideomycetes, Deuteromycetes and Phycomycetes[1].

The systemic fungicide Carboxin is a powerful inhibitor of succinate oxidation in mitochondria[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Theranostics. 2023 May 21;13(10):3165-3187.

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REFERENCES

[1]. Frampton CS, et al. Two polymorphic forms of the oxathiin systemic fungicide active carboxine. Acta Crystallogr E Crystallogr Commun. 2018 Nov 9;74(Pt 12):1741-1745.

[2]. G.A.White, et al. Oxathiin carboxamides highly active against carboxin-resistant succinic dehydrogenase complexes from carboxin-selected mutants of Ustilago maydis and Aspergillus nidulans. Pestic Biochem Physiol. 1978 Oct;9(2):165-182.

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