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# Produktinformation

- Forschungsprodukte & Biochemikalien
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- Laborgeräte & Service

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See the following pages for more information!

## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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# Ibrexafungerp citrate

**Cat. No.:** HY-107126A

**CAS No.:** 1965291-08-0

**Molecular Formula:** $C_{50}H_{75}N_5O_{11}$

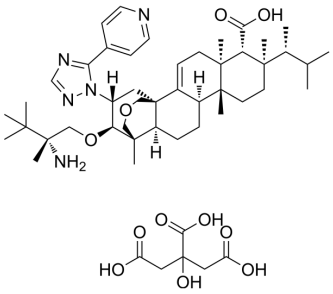
**Molecular Weight:** 922.16

**Target:** Fungal

**Pathway:** Anti-infection

**Storage:** 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 100 mg/mL (108.44 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 1.0844 mL | 5.4221 mL | 10.8441 mL |
| | 5 mM | 0.2169 mL | 1.0844 mL | 2.1688 mL |
| | 10 mM | 0.1084 mL | 0.5422 mL | 1.0844 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 (2.71 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (2.71 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (2.71 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

Ibrexafungerp citrate (MK 3118 citrate) is an orally active β-1,3-glucan synthesis inhibitor, with potential antifungal activity. Ibrexafungerp citrate is an investigational agent for the treatment of Candida and Aspergillus infections[1].

**In Vitro**

Ibrexafungerp citrate (MK 3118 citrate) leads to fungicidal activity against various Candida spp., with a minimum inhibitory concentration (MIC50) of 0.5 μg/mL[2].

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

**In Vivo**

Pharmacokinetic Analysis

Ibrexafungerp citrate (MK 3118 citrate) exhibits oral bioavailability (mouse 51%, rat 45%, dog 35%) following oral

administration (mouse 1 mg/kg, rat 5 mg/kg and dog 5 mg/kg)[3].
Ibrexafungerp citrate (MK 3118 citrate) exhibits moderate half-lives (mouse 5.5, rat 8.7 and, dog 9.3 h) due to high plasma clearance (0.68, 0.44, and 0.45 L/h/kg respectively) combined with large volumes of distribution (5.3, 4.7, and 4.1 L/kg respectively) following intravenous administration (mouse 1 mg/kg, rat 5 mg/kg and dog 5 mg/kg)[3].

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

| | |
|---|---|
| Animal Model: | Female CD1 mice, Male and female Han Wister rats, Male and female beagle dogs[3] |
| Dosage: | Mice (1 mg/kg), rats (5 mg/kg) and dogs (5 mg/kg) |
| Administration: | Intravenous (i.v.) or oral gavage |
| Result: | $T_{1/2}$s of 5.5, 8.7, and 9.3 h for mice, rats, and dogs, respectively. |

## REFERENCES


[1]. James M Apgar, et al. Ibrexafungerp: An orally active β-1,3-glucan synthesis inhibitor. Bioorg Med Chem Lett. 2021 Jan 15;32:127661.

[2]. Mahmoud Ghannoum, et al. Ibrexafungerp: A Novel Oral Triterpenoid Antifungal in Development for the Treatment of Candida auris Infections. Antibiotics (Basel). 2020 Aug 25;9(9):539.

[3]. Stephen A Wring, et al. Preclinical Pharmacokinetics and Pharmacodynamic Target of SCY-078, a First-in-Class Orally Active Antifungal Glucan Synthesis Inhibitor, in Murine Models of Disseminated Candidiasis. Antimicrob Agents Chemother. 2017 Mar 24;61(4):e02068-16.





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