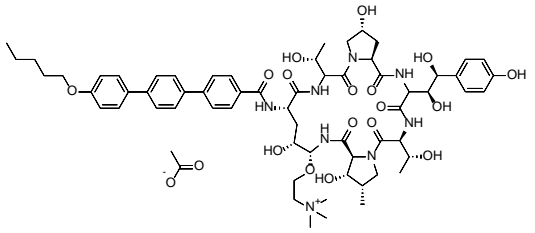


Product data sheet



MedKoo Cat#: 461269 Name: Rezafungin acetate CAS: 1631754-41-0 (acetate) Chemical Formula: C ₆₅ H ₈₈ N ₈ O ₁₉ Exact Mass: 1225.6027 Molecular Weight: 1285.456	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:

Rezafungin (formerly CD101) is a new β -glucan synthase inhibitor that is chemically related with anidulafungin. Rezafungin is a novel echinocandin (form of antifungal) with enhanced stability and pharmacokinetics that achieves high plasma drug exposure and allows for once weekly dose administration. Rezafungin has been shown comparable to other echinocandins, with activity against *Candida* spp. and *Aspergillus* spp. including subsets of echinocandin-resistant *Candida auris* and azole-resistant *Aspergillus* isolates.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	230.0	178.92

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	0.78 mL	3.89 mL	7.78 mL
5 mM	0.16 mL	0.78 mL	1.56 mL
10 mM	0.08 mL	0.39 mL	0.78 mL
50 mM	0.02 mL	0.08 mL	0.16 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

- Kovács R, Tóth Z, Locke JB, Forgács L, Kardos G, Nagy F, Borman AM, Majoros L. Comparison of In Vitro Killing Activity of Rezafungin, Anidulafungin, Caspofungin, and Micafungin against Four *Candida auris* Clades in RPMI-1640 in the Absence and Presence of Human Serum. *Microorganisms*. 2021 Apr 16;9(4):863. doi: 10.3390/microorganisms9040863. PMID: 33923783; PMCID: PMC8073555.
- Helleberg M, Jørgensen KM, Hare RK, Datcu R, Chowdhary A, Arendrup MC. Rezafungin In Vitro Activity against Contemporary Nordic Clinical *Candida* Isolates and *Candida auris* Determined by the EUCAST Reference Method. *Antimicrob Agents Chemother*. 2020 Mar 24;64(4):e02438-19. doi: 10.1128/AAC.02438-19. PMID: 32015032; PMCID: PMC7179313.

In vivo study

- Cushion MT, Ashbaugh A. The Long-Acting Echinocandin, Rezafungin, Prevents *Pneumocystis* Pneumonia and Eliminates *Pneumocystis* from the Lungs in Prophylaxis and Murine Treatment Models. *J Fungi (Basel)*. 2021 Sep 11;7(9):747. doi: 10.3390/jof7090747. PMID: 34575785; PMCID: PMC8468546.
- Miesel L, Cushion MT, Ashbaugh A, Lopez SR, Ong V. Efficacy of Rezafungin in Prophylactic Mouse Models of Invasive Candidiasis, Aspergillosis, and *Pneumocystis* Pneumonia. *Antimicrob Agents Chemother*. 2021 Feb 17;65(3):e01992-20. doi: 10.1128/AAC.01992-20. PMID: 33318018; PMCID: PMC8092522.

Product data sheet



7. Bioactivity

Biological target:

Rezafungin (formerly CD101) is a β -glucan synthase inhibitor.

In vitro activity

This study compared killing activities of anidulafungin, caspofungin, micafungin, and rezafungin against 13 isolates representing four *C. auris* clades (South Asian n = 3; East Asian n = 3; South African n = 3; South American n = 4, of which two were of environmental origin). In 50% serum, rezafungin at ≥ 1 - ≥ 8 mg/L produced killing against all four clades. The next generation echinocandin, rezafungin, showed the same or better activity at clinically attainable trough concentration regardless of media, compared with anidulafungin, caspofungin, and micafungin against all four tested *C. auris* clades.

Reference: Microorganisms. 2021 Apr 16;9(4):863. <https://pubmed.ncbi.nlm.nih.gov/33923783/>

In vivo activity

Herein, the in vivo effects of rezafungin against *Pneumocystis murina* pneumonia were evaluated in immunosuppressed mouse models of prophylaxis and treatment using microscopy and qPCR assessments. Rezafungin administered for 4 weeks prevented *P. murina* from developing infection after rezafungin was discontinued. In the treatment model, immunosuppressed mice with *P. murina* pneumonia were treated with rezafungin 20 mg/kg 3 \times /week intraperitoneally for 2, 4, 6 and 8 weeks. Treatment with rezafungin for 8 weeks resulted in elimination of *P. murina*. Collectively, these studies showed that rezafungin could both prevent infection and eliminate *P. murina* from the lungs of mice.

Reference: J Fungi (Basel). 2021 Sep 11;7(9):747. <https://pubmed.ncbi.nlm.nih.gov/34575785/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.