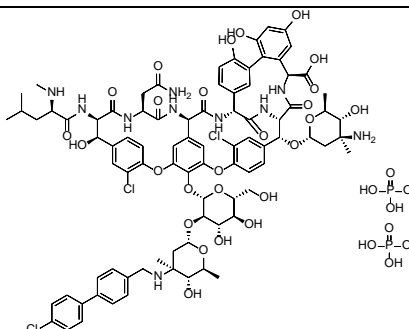


Product data sheet



MedKoo Cat#: 317101 Name: Oritavancin diphosphate CAS#: 192564-14-0 (diphosphate) Chemical Formula: $C_{86}H_{103}Cl_3N_{10}O_{34}P_2$ Molecular Weight: 1989.09		
Product supplied as:	Powder	
Purity (by HPLC):	$\geq 98\%$	
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:

Oritavancin, also known as LY333328, is a novel semisynthetic glycopeptide antibiotic. On August 6, 2014, the FDA approved oritavancin for treatment of skin infections. Oritavancin possesses potent and rapid bactericidal activity in vitro against a broad spectrum of both resistant and susceptible Gram-positive bacteria, including *Staphylococcus aureus*, MRSA, enterococci, and streptococci. Oritavancin was more active than either metronidazole or vancomycin against strains of *Clostridium difficile* tested. Oritavancin has potential use as a therapy for exposure to *Bacillus anthracis*, the Gram-positive bacterium that causes anthrax, having demonstrated efficacy in a mouse model both before and after exposure to the bacterium. The 4'-chlorobiphenylmethyl group disrupts the cell membrane of Gram-positive bacteria. It also acts by inhibition of transglycosylation and inhibition of transpeptidation.

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	40.0	20.1

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	0.50 mL	2.51 mL	5.03 mL
5 mM	0.10 mL	0.50 mL	1.01 mL
10 mM	0.05 mL	0.25 mL	0.50 mL
50 mM	0.01 mL	0.05 mL	0.10 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

1. Kmeid J, Kanafani ZA. Oritavancin for the treatment of acute bacterial skin and skin structure infections: an evidence-based review. Core Evid. 2015 Feb 11;10:39-47. doi: 10.2147/CE.S51284. PMID: 25709561; PMCID: PMC4334198.

In vivo study

1. Kmeid J, Kanafani ZA. Oritavancin for the treatment of acute bacterial skin and skin structure infections: an evidence-based review. Core Evid. 2015 Feb 11;10:39-47. doi: 10.2147/CE.S51284. PMID: 25709561; PMCID: PMC4334198.

7. Bioactivity

Biological target: Oritavancin diphosphate (LY333328 diphosphate) is a semisynthetic glycopeptide antibiotic.

In vitro activity

Oritavancin demonstrates in vitro activity against most Gram-positive and anaerobic bacteria (Table 1). Its spectrum of activity is similar to that of vancomycin and teicoplanin, but is distinguished by its activity against vancomycin-resistant organisms. In addition

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to the target organisms, oritavancin has in vitro activity against other Gram-positive organisms, including modest activity against species intrinsically resistant to glycopeptides (Lactobacillus, Leuconostoc, and Pediococcus spp.). Oritavancin does not have activity against Gram-negative organisms.

Reference: Core Evid. 2015 Feb 11;10:39-47. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4334198/>

In vivo activity

In a murine neutropenic thigh model study, oritavancin was found to be effective in the treatment of complicated skin infections due to *S. aureus*. It was also found that using oritavancin in a higher but less frequent dose was more effective than using multiple small doses.

Reference: Reference: Core Evid. 2015 Feb 11;10:39-47. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4334198/>

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.