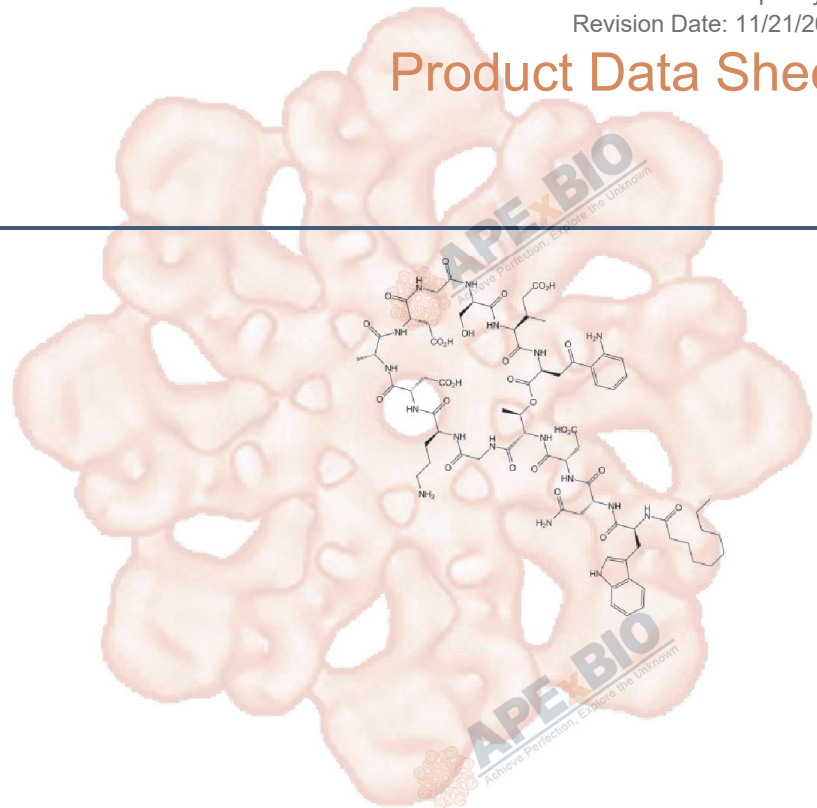


Product Data Sheet

Daptomycin

Cat. No.:	A1206
CAS No.:	103060-53-3
Formula:	C72H101N17O26
M.Wt:	1620.67
Synonyms:	
Target:	DNA Damage/DNA Repair
Pathway:	DNA Synthesis
Storage:	Store at -20°C



Solvent & Solubility

≥81.03 mg/mL in H₂O; ≥81.05 mg/mL in DMSO; insoluble in EtOH

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	0.6170 mL	3.0851 mL	6.1703 mL
	5 mM	0.1234 mL	0.6170 mL	1.2341 mL
	10 mM	0.0617 mL	0.3085 mL	0.6170 mL

Please refer to the solubility information to select the appropriate solvent

Biological Activity

Shortsummary

Calcium-dependent antibiotic

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line: Methicillin susceptible *S. aureus* (ATCC #29213)

Preparation method: The solubility of this compound in DMSO is >81.1mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Reacting conditions: MIC: 1 µg/mL

	Applications:	In methicillin susceptible <i>S. aureus</i> (ATCC #29213), Daptomycin (DAP) maintained good antibacterial activities against <i>S. aureus</i> in Mueller-Hinton Broth supplemented with 50 mg/L calcium (MHbC).
In Vivo	Animal experiment	
	Animal models:	murine model of enterococcal experimental peritonitis
	Dosage form:	50 mg/kg; q24h, intravenous (i.v.); 2 h after enterococcal inoculation for 48 h
	Applications:	In mice injected intraperitoneally with 4×10^{10} colony-forming units of <i>Enterococcus faecium</i> , Daptomycin (DAP) significantly prolonged the mean time until death. DAP or DAP plus AMP significantly decreased the viable bacteria counts of the peritoneal fluid 6 h after inoculation.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Brennan-Krohn T, Pironti A, Kirby JE. "Synergistic Activity of Colistin-Containing Combinations against Colistin-Resistant Enterobacteriaceae." *Antimicrob Agents Chemother.* 2018 Jul 30. pii: AAC.00873-18.PMID:30061285

See more customer validations on www.apexbt.com.

References

[1] Yong He, Jing Li, Nin Yin, Prudencio S. Herradura, Larry Martel, Yanzi Zhang, Andre L. Pearson, Vidya Kulkarni, Carmela Mascio. Reduced pulmonary surfactant interaction of daptomycin analogs via tryptophan replacement with alternative amino acids. *Bioorganic & Medicinal Chemistry Letters.* 1 October 2012. 22(19): 6248-6251.

[2] Kajihara T1, Nakamura S2, Iwanaga N3, et al. Comparative efficacies of daptomycin, vancomycin, and linezolid in experimental enterococcal peritonitis. *J Infect Chemother.* 2017 Jul;23(7):498-501.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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