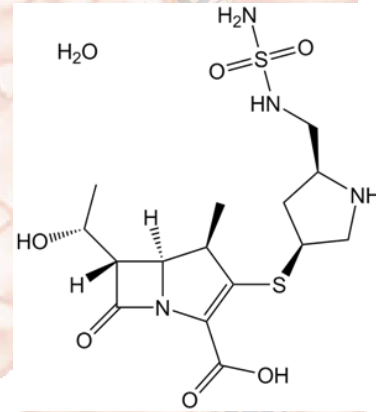


Product Data Sheet

Doripenem Hydrate

Cat. No.:	A2036
CAS No.:	364622-82-2
Formula:	C ₁₅ H ₂₄ N ₄ O ₆ S ₂ ·H ₂ O
M.Wt:	438.52
Synonyms:	
Target:	Microbiology & Virology
Pathway:	Antibiotic
Storage:	Store at -20°C



Solvent & Solubility

insoluble in EtOH; ≥ 10.96 mg/mL in DMSO; ≥ 9.4 mg/mL in H₂O

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	2.2804 mL	11.4020 mL	22.8040 mL
	5 mM	0.4561 mL	2.2804 mL	4.5608 mL
	10 mM	0.2280 mL	1.1402 mL	2.2804 mL

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

Biological Activity

Shortsummary

Injectable antibiotic, ultra-broad spectrum

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line: bacteria

Preparation method: The solubility of this compound in DMSO is >11mg/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.

Applications: S-4661 was potent against methicillin-susceptible Staphylococcus aureus and

		methicillin-susceptible <i>Staphylococcus epidermidis</i> with the MIC90 of 0.063 µg/ml. S-4661 was potent against penicillin-resistant <i>S. pneumoniae</i> . S-4661 showed activities against <i>S. pyogenes</i> and penicillin-resistant <i>S. pneumoniae</i> . S-4661 was active against <i>Enterococcus faecalis</i> . S-4661 was particularly active against <i>Enterobacteriaceae</i> and <i>H. influenzae</i> . The MIC90s for <i>Escherichia</i> , <i>Klebsiella</i> , <i>Proteus</i> , <i>Providencia</i> , <i>Morganella</i> , <i>Citrobacter</i> , <i>Enterobacter</i> , and <i>Serratia</i> spp. ranged from 0.063 to 0.5 µg/ml.
In Vivo	Animal experiment	
	Animal models:	Male SLC/ICR mouse model of bacteremia, mouse model of respiratory tract infection induced by <i>S. pneumoniae</i> , male CBA/JNCrj mouse model of pulmonary infection induced by penicillin-resistant <i>S. Pneumonia</i> TUH741
	Dosage form:	Subcutaneously administration, twice daily for 2 days
	Applications:	The ED50 of S-4661 against <i>S. aureus</i> Smith was 0.066 mg/kg. The ED50 of S-4661 was 0.23 mg/kg against <i>S. pneumoniae</i> TUH39, the same as that of imipenem-cilastatin. S-4661 (10 mg/kg) showed significant antibacterial activity.
	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

See more customer validations on www.apexbt.com.

References

[1]. Tsuji M, Ishii Y, Ohno A, et al. In vitro and in vivo antibacterial activities of S-4661, a new carbapenem[J]. *Antimicrobial agents and chemotherapy*, 1998, 42(1): 94-99.

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.



APExBIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com

