

## Product Datasheet

### Doripenem hydrate (orb2283786)

<b>Description</b>	Doripenem is a broad-spectrum carbapenem antibiotic effective against both Gram-negative and Gram-positive bacteria, such as <i>S. aureus</i> , <i>S. pneumoniae</i> , <i>E. coli</i> , and <i>K. pneumoniae</i> , with minimum inhibitory concentrations (MICs) ranging from less than 0.015 to 0.3 µg/ml. It has been proven to reduce the viable bacteria count in mouse lung models of chronic <i>P. aeruginosa</i> respiratory tract infection at a dosage of 100 mg/kg per day. Doripenem operates by inhibiting bacterial cell wall synthesis through the formation of stable acyl-enzyme complexes with penicillin-binding proteins, leading to their inactivation. This compound has been utilized in various formulations for the treatment of bacterial infections.
<b>Storage</b>	-20°C
<b>Note</b>	For research use only
<b>Formula</b>	$C_{15}H_{24}N_4O_6S_2 \cdot xH_2O$
<b>Purity</b>	98.00%
<b>MW</b>	420.51
<b>CAS Number</b>	1820954-21-9
<b>SMILES</b>	<chem>C(O)(=O)C=1N2[C@@]([C@@]([C@@H](C)O)(C2=O)[H])([C@@H](C)C1S[C@H]3C[C@@H](CNS(N)(=O)=O)NC3)[H].O</chem>
<b>Expiration Date</b>	12 months from date of receipt.

**Biorbyt Ltd.**

7 Signet Court, Swann's Road,  
Cambridge, CB5 8LA, United Kingdom  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+44 \(0\) 1223 859-353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)

**Biorbyt LLC.**

68 TW Alexander Drive,  
Durham, NC, 27713, United States  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+1 \(415\) 906-5211](tel:+1(415)9065211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)