

<b>Product Name:</b>	Cephapirin benzathine
<b>Product Number:</b>	C217
<b>CAS Number:</b>	97468-37-6
<b>Molecular Formula:</b>	$C_{34}H_{34}N_6O_{12}S_4 \cdot C_{16}H_{20}N_2$
<b>Molecular Weight:</b>	1087.27
<b>Description:</b>	<p>Cephapirin is a first-generation cephalosporin that boasts broad spectrum activity against gram-positive and gram-negative organisms. It is more resistance to beta-lactamases than the penicillin family. It is commonly used in the veterinary field.</p>
<b>Mechanism of Action:</b>	<p>Cephapirin benzathine is practically insoluble in water, ether, and toluene.</p> <p>Like <math>\beta</math>-lactams, cephalosporins interfere with PBP (penicillin binding protein) activity involved in the final phase of peptidoglycan synthesis. PBP's are enzymes which catalyze a pentaglycine crosslink between alanine and lysine residues providing additional strength to the cell wall. Without a pentaglycine crosslink, the integrity of the cell wall is severely compromised and ultimately leads to cell lysis and death.</p>
<b>References:</b>	<p>CEPHAPIRIN (Veterinary—Intramammary-Local) (2003) The United States Pharmacopeial Convention, Inc. Monograph. American Academy of Veterinary Pharmacology and Therapeutics. Website.</p>