

<b>Product Name</b>	: Calcimycin
<b>Synonyms</b>	: A-23187, Antibiotic A-23187
<b>Cat No.</b>	: M22570
<b>CAS Number</b>	: 52665-69-7
<b>Molecular Formula</b>	: C <sub>29</sub> H <sub>37</sub> N <sub>3</sub> O <sub>6</sub>
<b>Formula Weight</b>	: 523.62
<b>Chemical Name</b>	: —
<b>Description</b>	<p>Calcimycin is an ionophorous, polyether carboxylic antibiotic from <i>Streptomyces chartreusensis</i>. It binds and transports calcium and other divalent cations across membranes and uncouples oxidative phosphorylation while inhibiting ATPase of rat liver mitochondria. The substance is used mostly as a biochemical tool to study the role of divalent cations in various biological systems. Calcimycin mediates mycobacterial killing by inducing intracellular calcium-regulated autophagy in a P2RX7 dependent manner. Calcimycin (2.5 or 7.5 nM; intrapleurally) induces protein leakage.</p>
<b>Pathway</b>	: GPCR/G Protein
<b>Target</b>	: Antibacterial
<b>Receptor</b>	: Bacterial; Antifungal; Apoptosis; Autophagy; Antibiotic
<b>Solubility</b>	: DMSO: 47 mg/mL (89.76mM); Need ultrasonic
<b>SMILES</b>	: <chem>[H][C@@]1(O[C@@]2(CC[C@@H](C)[C@@H](Cc3nc4c(C(=O)O)c(NC)ccc4o3)O2)[C@H](C)C[C@@H]1C)[C@H](C)C(=O)c1ccc[nH]1</chem>
<b>Storage</b>	: (-20°C)
<b>Stability</b>	: ≥ 2 years
<b>Reference</b>	:

1. Wu Q, et al. Characterization of the biosynthesis gene cluster for the pyrrole polyether antibiotic calcimycin(A23187) in *Streptomyces chartreusis* NRRL 3882. *Antimicrob Agents Chemother*. 2011 Mar;55(3):974-82.