Antibiotic A-23187 highly selective divalent cation ionophore, commonly used to increase intracellular Ca\(^{2+}\) levels in intact cells (though it is most selective for Mn\(^{2+}\)). It uncouples oxidative phosphorylation. In addition, A23187 inhibits ATPase activity.

1) Reed and Lardy (1972) A23187: a divalent cation ionophore, J. Biol. Chem. 247, 6970
2) Wong et al. (1973) Effects of antibiotic ionophore, A23187, on oxidative phosphorylation and calcium transport of liver mitochondria, Arch. Biochem. Biophys. 156 578
3) Hara and Kanazawa (1986) Selective inhibition by ionophore A23187 of the enzyme isomerization in the catalytic cycle of sarcoplasmic reticulum Ca\(^{2+}\)-ATPase, J. Biol. Chem. 261 16584

**PHYSICAL DATA**

Molecular Weight: 523.62
Molecular Formula: C\(_{29}\)H\(_{37}\)N\(_3\)O\(_6\)
Purity: >98%
Solubility: DMSO (up to 25 mg/ml) and ethanol (up to 5 mg/mL)
Physical Description: Off-white solid
Storage and Stability: Store as supplied at -20°C for up to 2 years from the date of purchase. Store solutions at -20°C for up to 4 months.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.

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