

# PRODUCT INFORMATION

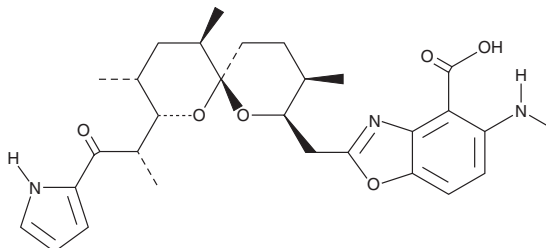


**A23187**

Item No. 11016

**CAS Registry No.:** 52665-69-7  
**Formal Name:** 5-(methylamino)-2-  
[[[(2R,3R,6S,8S,9R,11R)-3,9,11-  
trimethyl-8-[(1S)-1-methyl-2-  
oxo-2-(1H-pyrrol-2-yl)ethyl]-1,7-  
dioxaspiro[5.5]undec-2-yl]methyl-  
4-benzoxazolecarboxylic acid

**Synonym:** Calcimycin  
**MF:** C<sub>29</sub>H<sub>37</sub>N<sub>3</sub>O<sub>6</sub>  
**FW:** 523.6  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 226, 279, 379 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years  
**Item Origin:** Bacterium/*Streptomyces chartreusis*



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## Laboratory Procedures

A23187 is supplied as a crystalline solid. A stock solution may be made by dissolving the A23187 in the solvent of choice, which should be purged with an inert gas. A23187 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of A23187 in these solvents is approximately 1 and 10 mg/ml, respectively.

## Description

A23187 is a calcium ionophore and a microbial metabolite that has been found in *S. chartreusensis*.<sup>1,2</sup> It induces calcium overload and mitochondrial apoptosis in HEK293 cells when used at a concentration of 5 μM.<sup>1</sup> A23187 (5 μM) induces the production of reactive oxygen species (ROS) and neutrophil extracellular trap (NET) formation in primary human neutrophils in a myeloperoxidase-, neutrophil elastase-, and citrullination-independent manner.<sup>2</sup>

## References

1. Cho, S.-Y., Lee, J.-H., Bae, H.-D., *et al.* Transglutaminase 2 inhibits apoptosis induced by calcium-overload through down-regulation of Bax. *Exp. Mol. Med.* **42(9)**, 639-650 (2010).
2. Kenny, E.F., Herzig, A., Krüger, R., *et al.* Diverse stimuli engage different neutrophil extracellular trap pathways. *eLife* **6**, e24437 (2017).

### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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