

PRODUCT INFORMATION

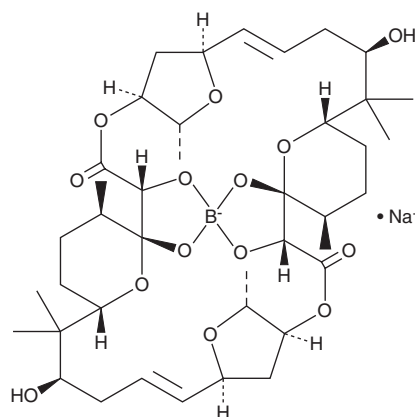


Aplasmomycin A (sodium salt)

Item No. 43828

CAS Registry No.: 61230-25-9
Formal Name: (T-4)-[(1R,2R,5S,6R,8S,9E,12R,14S,17R,18R,19R,22S,23R,25S,26E,29R,31S,34R)-1,2,18,19-tetra(hydroxy-κO)-12,29-dihydroxy-6,13,13,17,23,30,30,34-octamethyl-4,7,21,24,35,37-hexaoxapentacyclo[29.3.1.15.8.114,18.122,25]octatriaconta-9,26-diene-3,20-dionato(4-)]-borate(1-), monosodium salt

Synonym: Aplasmomycin
MF: C₄₀H₆₀BO₁₄ • Na
FW: 798.7
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Aplasmomycin A (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the aplasmomycin A (sodium salt) in the solvent of choice, which should be purged with an inert gas. Aplasmomycin A (sodium salt) is soluble in methanol and DMSO.

Aplasmomycin A (sodium salt) is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Aplasmomycin A is a polyketide synthase-derived macrodiolide antibiotic that has been found in *S. griseus*.¹⁻³ It is active against several Gram-positive bacteria, including *Staphylococcus*, *Bacillus*, and *Mycobacterium* (MICs = 0.78-6.25 µg/ml).² Aplasmomycin A (100 mg/kg) increases survival and decreases the number of infected red blood cells in a mouse model of *P. berghei* infection.

References

1. Floss, H.G. and Chang, C. Biosynthesis of some unusual macrolide antibiotics. *Biosynthesis* 193-214 (1981).
2. Okami, Y., Okazaki, T., Kitahara, T., *et al.* Studies on marine microorganisms. V. A new antibiotic, aplasmomycin, produced by a streptomycete isolated from shallow sea mud. *J. Antibiot. (Tokyo)* **29(10)**, 1019-1025 (1976).
3. Shimizu, Y., Ogasawara, Y., Matsumoto, A., *et al.* Aplasmomycin and boromycin are specific inhibitors of the futasoline pathway. *J. Antibiot. (Tokyo)* **71(11)**, 968-970 (2018).

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.

WARRANTY AND LIMITATION OF REMEDY
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