

PRODUCT INFORMATION



Chromomycin A₂

Item No. 26954

CAS Registry No.: 6992-70-7

Formal Name: (1S)-1-C-[[[(2S,3S)-7-[[[4-O-acetyl-2,6-dideoxy-3-O-(2,6-dideoxy-4-O-methyl- α -D-lyxo-hexopyranosyl)- β -D-lyxo-hexopyranosyl]oxy]-3-[[O-2,6-dideoxy-3-C-methyl-4-O-(2-methyl-1-oxopropyl)- α -L-arabino-hexopyranosyl(1 \rightarrow 3)-O-2,6-dideoxy- β -D-arabino-hexopyranosyl(1 \rightarrow 3)-2,6-dideoxy- β -D-arabino-hexopyranosyl]oxy]-1,2,3,4-tetrahydro-5,10-dihydroxy-6-methyl-4-oxo-2-anthracenyl]-5-deoxy-1-O-methyl-D-threo-2-pentulose

Synonyms: Aburamycin A, CMA₂, NSC 131187

MF: C₅₉H₈₆O₂₆

FW: 1,211.3

Purity: \geq 98%

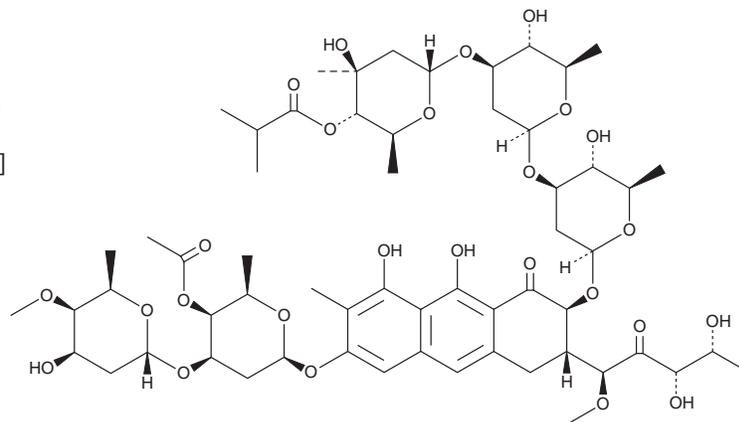
Supplied as: A powder

Storage: -20°C

Stability: \geq 4 years

Item Origin: Bacterium/*Streptomyces* sp.

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



Laboratory Procedures

Chromomycin A₂ is supplied as a powder. A stock solution may be made by dissolving the chromomycin A₂ in the solvent of choice, which should be purged with an inert gas. Chromomycin A₂ is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide.

Description

Chromomycin A₂ is an aureolic acid that has been found in several marine actinomycetes and has antibacterial and anticancer activities.^{1,2} Chromomycin A₂ inhibits the growth of *B. subtilis* in an agar diffusion assay.¹ It also inhibits the growth of human SGC7901 gastric cancer, HepG2 hepatocellular carcinoma, A549 lung epithelial adenocarcinoma, HCT116 colon cancer, and COC1 ovarian cancer cells, as well as human umbilical vein endothelial cells (HUVECs; IC₅₀s = 4, 0.5, 3, 5, 5, and 8 nM, respectively).² Chromomycin A₂ (30 nM) halts the cell cycle in the G₀/G₁ phase and increases the protein levels of LC3A and LC3B in MALME-3M melanoma cells, indicating that it induces autophagy.³ It also increases the levels and promoter activity of the autophagic proteins ATG7 and ATG10 and reduces cell viability to 50% in human SCC-11 squamous cell carcinoma cells when used at a concentration of 30 nM.⁴

References

1. Yoshimoto, A., Oki, T., and Inui, T. *J. Antibiot. (Tokyo)* **31(1)**, 92-94 (1978).
2. Lu, J., Ma, Y., Liang, J., et al. *Microbiol. Res.* **167(10)**, 590-595 (2012).
3. Guimarães, L.A., Jimenez, P.C., da Silva Sousa, T., et al. *Mar. Drugs* **12(12)**, 5839-5855 (2014).
4. Ratovitski, E.A. *Mar. Drugs* **14(8)**, E154 (2016).

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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