

PRODUCT INFORMATION



Oligomycin C

Item No. 19162

CAS Registry No.: 11052-72-5
Formal Name: (1R,2'R,4E,5'S,6S,6'S,7R,8S,10R,11S,12S,14S,15S,16R,18E,20E,22R,25S,28S,29R)-22-ethyl-3',4',5',6'-tetrahydro-7,11,15-trihydroxy-6'-[(2R)-2-hydroxypropyl]-5',6,8,10,12,14,16,28,29-nonamethyl-spiro[2,26-dioxabicyclo[23.3.1]nonacosa-4,18,20-triene-27,2'-[2H]pyran]-3,9,13-trione

Synonym: 12-deoxy Oligomycin A

MF: C₄₅H₇₄O₁₀

FW: 775.1

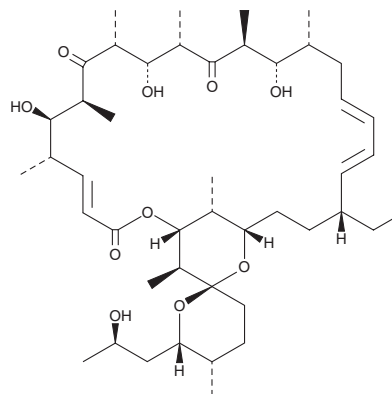
Purity: ≥95%

Supplied as: A lyophilisate

Storage: -20°C

Stability: ≥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

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

Description

Oligomycins are macrolides created by *Streptomyces* species that can be toxic to other organisms. Different oligomycin isomers are highly specific for the disruption of mitochondrial metabolism. Oligomycin C is a minor component of the oligomycin complex (Item No. 11341) that acts as an inhibitor of the mitochondrial F₁F₀-ATP synthase.¹ Inhibition of the ATP synthase by oligomycins leads to cell death.²

References

1. Hong, S. and Pedersen, P.L. ATP synthase and the actions of inhibitors utilized to study its roles in human health, disease, and other scientific areas. *Microbiol. Mol. Biol. Rev.* **72(4)**, 590-641 (2008).
2. Marton, A., Mihalik, R., Bratincsak, A., et al. Apoptotic cell death induced by inhibitors of energy conservation--Bcl-2 inhibits apoptosis downstream of a fall of ATP level. *Eur. J. Biochem.* **250(2)**, 467-475 (1997).

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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