

PRODUCT INFORMATION



Apoptolidin

Item No. 19435

CAS Registry No.: 194874-06-1

Formal Name: (1R)-O-2,6-dideoxy-3-O-methyl-β-D-arabino-hexopyranosyl-(1→4)-O-2,6-dideoxy-3-C-methyl-α-L-arabino-hexopyranosyl-(1→8)-3,5,7-trideoxy-1-C-[(2S,4S,5S,8E,10E,12R,13R,14E,16E,18E)-12-[[6-deoxy-4-O-methyl-α-L-glucopyranosyl)oxy]-5-hydroxy-4-methoxy-9,13,15,17,19-pentamethyl-20-oxooxacycloicosa-8,10,14,16,18-pentaen-2-yl]-3,5-dimethyl-9-O-methyl-L-glycero-α-D-galacto-2-nonulopyranose

Synonym: Apoptolidin A

MF: C₅₈H₉₆O₂₁

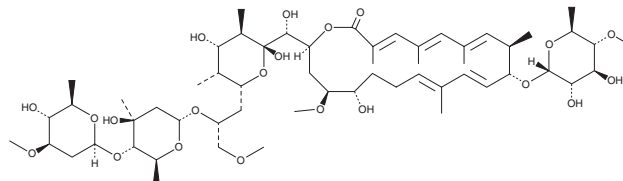
FW: 1,129.4

Purity: ≥95%

Supplied as: A lyophilisate

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

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

Description

Apoptolidin is an apoptosis inducer originally isolated from *Nocardiosis* bacteria.¹ It inhibits the mitochondrial F₁F₀ ATPase (K_i = 4-5 μM).^{2,3} Apoptolidin selectively kills transformed glial cells without significantly affecting untransformed cells.³ It also has antibiotic and antifungal actions.^{1,3}

References

1. Kim, J.W., Adachi, H., Shin-Ya, K., *et al.* Apoptolidin, a new apoptosis inducer in transformed cells from *Nocardiosis* sp. *J. Antibiot. (Tokyo)* **50(7)**, 628-630 (1997).
2. Salomon, A.R., Voehringer, D.W., Herzenberg, L.A., *et al.* Understanding and exploiting the mechanistic basis for selectivity of polyketide inhibitors of F₀F₁-ATPase. *Proc. Natl. Acad. Sci. USA* **97(26)**, 14766-14771 (2000).
3. Salomon, A.R., Voehringer, D.W., Herzenberg, L.A., *et al.* Apoptolidin, a selective cytotoxic agent, is an inhibitor of F₀F₁-ATPase. *Chem. Biol.* **8**, 71-80 (2001).

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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