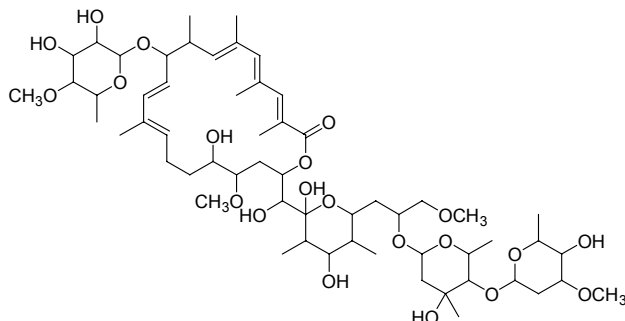


Apoptolidin

Code: **BIA-A1007**

Pack sizes: **0.1 mg, 0.5 mg**



Synonyms :

Specifications

CAS #	: 194874-06-1
Molecular Formula	: C₅₈H₉₆O₂₁
Molecular Weight	: 1129.4
Source	: <i>Amycolatopsis</i> sp. MST-AS5912
Appearance	: White solid
Purity	: > 95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in ethanol, methanol, DMF or DMSO.

Application Notes

Apoptolidin, originally isolated from a *Nocardioopsis* sp., induces apoptotic cell death in rat glial cells transformed with the adenovirus E1A oncogene at an IC₅₀ = 11 ng/ml. It is among the most selective cytotoxic agents tested by the NCI in human cancer cell lines. Although the apoptotic activity of apoptolidin correlates with F₀F₁-ATPase inhibition, recent evidence suggests the existence of a secondary biological target or more complex mode of action.

References

1. Correlation of F₀F₁-ATPase inhibition and antiproliferative activity of apoptolidin analogues. Wender P.A. et al. *Org. Lett.* **2006**, 8, 589.
2. Apoptolidin: induction of apoptosis by a natural product. Daniel P.T. et al. *Angew. Chem. Int. Ed. Engl.* **2006**, 45, 872.
3. Understanding and exploiting the mechanistic basis for selectivity of polyketide inhibitors of F(0)F(1)-ATPase. Salomon A.R. et al. *Proc. Natl Acad. Sci. USA.* **2000**, 97, 14766.
4. Apoptolidin, a new apoptosis inducer in transformed cells from *Nocardioopsis* sp. Kim J.W. et al. *J. Antibiot.* **1997**, 50, 628.