Product Information

Apoptolidin A, Ready Made Solution from Amycolatopsis sp.

Catalog Number SML0907
Storage Temperature –20 °C

CAS RN 194874-06-1
Synonyms: FU 40A, Apoptolidin

Product Description
Molecular formula: C_{58}H_{96}O_{21}
Molecular weight: 1,129.37

Apoptolidin A is a 20-membered macrolide shown to be selectively cytotoxic against several cancer cell lines and noncytotoxic against normal cells.\(^1\)\(^3\) The molecule was originally produced by Nocardiopsis species, and its target site was identified as mitochondrial F\(_{0}\)F\(_{1}\)-ATPase.\(^4\)\(^5\)

Apoptolidin induces apoptosis selectively in rat glia cells transformed with the adenovirus oncogene E\(_{1}\)A.\(^1\)\(^2\) Several minor apoptolidin congeners were isolated, known as Apoptolidins A–D. All apoptolidins were reported to inhibit growth of H292 cancer cells (lung carcinoma) in the submicromolar range.\(^3\) Recently, a stereoselective synthesis of the Apoptolidin disaccharide was reported.\(^6\)

Reagent
The product is supplied as a 1 mg/mL (0.88 mM) solution prepared in dimethyl sulfoxide (DMSO).

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
Divide the solution into aliquots and store the product sealed at –20 °C. Under these conditions the product is stable for at least 2 years.

References
4. Salomon, A.R. et al., Understanding and exploiting the mechanistic basis for selectivity of polyketide inhibitors of F\(_{0}\)F\(_{1}\)-ATPase. PNAS USA, 97, 14766-14771 (2000).