

[Open Peer Review on Qeios](#)

Pladienolide Derivative E7107

National Cancer Institute

Source

National Cancer Institute. *Pladienolide Derivative E7107*. NCI Thesaurus. Code C69005.

A synthetic urethane derivative of pladienolide D with potential antineoplastic activity. Pladienolide derivative E7107 is generated from the 12-membered macrolide pladienolide D, one of several macrolides derived from the bacterium *Streptomyces platensis* Mer-11107. This agent appears to bind to the 130-kDa subunit 3 (spliceosome-associated protein 130; SAP130) of the splicing factor 3b (SF3b), resulting in inhibition of pre-messenger RNA splicing and the arrest of cell-cycle progression. The splicing factor SF3b is a multiprotein complex integral to the accurate excision of introns from pre-messenger RNA; the subunit SAP130 associates with U2 snRNP and is recruited to prespliceosomal complexes.