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Pol I Inhibitor CX5461

National Cancer Institute

Source

National Cancer Institute. *Pol I Inhibitor CX5461*. NCI Thesaurus. Code C126798.

An orally bioavailable inhibitor of RNA polymerase I (Pol I), with potential antineoplastic activity. Upon oral administration, CX-5461 selectively binds to and inhibits Pol I, prevents Pol I-mediated ribosomal RNA (rRNA) synthesis, induces apoptosis, and inhibits tumor cell growth. Pol I, the multiprotein complex that synthesizes rRNA, is upregulated in cancer cells and plays a key role in cell proliferation and survival. Hyperactivated rRNA transcription is associated with uncontrolled cancer cell proliferation.