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# FACT Complex-targeting Curaxin CBL0137

National Cancer Institute

## Source

National Cancer Institute. *FACT Complex-targeting Curaxin CBL0137*. NCI Thesaurus. Code C107239.

An orally available curaxin-based agent targeting the Facilitates Chromatin Transcription (FACT) complex, with potential antineoplastic activity. Upon administration, CBL0137 binds to FACT and sequesters the FACT complex on chromatin, which inhibits its activity. This prevents transcription of certain genes involved in cancer-associated signaling pathways; it specifically inhibits the transcription of both NF-kappa B and heat shock transcription factor 1 (HSF1) and simultaneously activates p53. This causes an increase in tumor cell apoptosis and a decrease in tumor cell proliferation, in FACT-positive cancers. In addition, this agent is able to sensitize FACT-positive tumor cells to the cytotoxic effects of other chemotherapeutic agents. FACT, a transcription and replication factor composed of the Structure Specific Recognition Protein (SSRP1) and suppressor of Ty 16 (Spt16) proteins, is expressed in a variety of tumor cells while almost absent in normal cells; its expression is associated with increased tumor aggressiveness and poor prognosis.