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Tallimustine

National Cancer Institute

Source

National Cancer Institute. *Tallimustine*. NCI Thesaurus. Code C1603.

A benzoyl mustard derivative of the antiviral agent distamycin A with potential antineoplastic activity. Tallimustine selectively binds to A-T rich regions in the minor groove of DNA and alkylates at the N3 position of adenine in a highly sequence-specific manner. This prevents DNA replication, inhibits cellular proliferation and triggers apoptosis. Moreover, unlike other clinical nitrogen mustards, tallimustine does not carry out guanine-N7 alkylation in the major groove of DNA, which may lead to a high selectivity of action.