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# CDC7 Kinase Inhibitor LY3143921 Hydrate

National Cancer Institute

## Source

National Cancer Institute. *CDC7 Kinase Inhibitor LY3143921 Hydrate*. NCI Thesaurus. Code C148509.

The hydrated form of an orally bioavailable inhibitor of cell division cycle 7 (CDC7) kinase, with potential antineoplastic activity. Upon administration of CDC7 kinase inhibitor LY3143921 hydrate, LY3143921 targets, binds to and inhibits the activity of CDC7, which may result in the inhibition of DNA replication and mitosis, the induction of tumor cell apoptosis, and the inhibition of tumor cell proliferation in CDC7-overexpressing tumor cells. The serine-threonine kinase CDC7 plays a key role in DNA replication by binding to and phosphorylating serine (Ser)-40 and 53 of MCM2 (minichromosome maintenance complex component 2), which is required for the initiation of DNA replication. Although expressed at low levels in healthy, normal cells, CDC7 is expressed at much higher levels in cancer cells.