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# Liposome-encapsulated Daunorubicin-Cytarabine

National Cancer Institute

## Source

National Cancer Institute. *Liposome-encapsulated Daunorubicin-Cytarabine*. NCI Thesaurus. Code C67504.

A liposomal formulation containing a fixed combination of the antineoplastic agents cytarabine and daunorubicin in a 5:1 molar ratio. Liposome-encapsulated daunorubicin-cytarabine has been designed to provide optimal delivery of a specific ratio of cytarabine to daunorubicin, one that has been shown to be synergistic in vitro. The antimetabolite cytarabine competes with cytidine for incorporation into DNA, inhibiting DNA synthesis. This agent also inhibits DNA polymerase, resulting in a decrease in DNA replication and repair. Daunorubicin, an intercalator and a topoisomerase II inhibitor, prevents DNA replication and inhibits protein synthesis. This agent also generates oxygen free radicals, resulting in the cytotoxic lipid peroxidation of cell membrane lipids.