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Guadecitabine

National Cancer Institute

Source

National Cancer Institute. *Guadecitabine*. NCI Thesaurus. Code C95209.

A dinucleotide antimetabolite of a decitabine linked via phosphodiester bond to a guanosine, with potential antineoplastic activity. Following metabolic activation by phosphorylation and incorporation into DNA, guadecitabine inhibits DNA methyltransferase, thereby causing genome-wide and non-specific hypomethylation, and inducing cell cycle arrest at S-phase. This agent is resistant to cytidine deaminase, hence may result in gradual release of decitabine both extra and intracellularly, leading to more prolonged exposures to decitabine.