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Cyclopentenyl Cytosine

National Cancer Institute

Source

National Cancer Institute. *Cyclopentenyl Cytosine*. NCI Thesaurus. Code C1359.

A pro-drug carbocyclic analogue of cytidine with antineoplastic and antiviral activities. Cyclopentenyl cytosine (CPEC) is converted to the active metabolite cyclopentenyl cytosine 5'-triphosphate (CPEC-TP); CPEC-TP competitively inhibits cytidine triphosphate (CTP) synthase, thereby depleting intracellular cytidine pools and inhibiting DNA and RNA synthesis. This agent may also induce differentiation of some tumor cell types. The antiviral activity of this agent is broad-spectrum.