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Lamivudine

National Cancer Institute

Source

National Cancer Institute. *Lamivudine*. NCI Thesaurus. Code C1471.

A synthetic nucleoside analogue with activity against hepatitis B virus (HBV) and HIV. Intracellularly, lamivudine is phosphorylated to its active metabolites, lamiduvine triphosphate (L-TP) and lamiduvine monophosphate (L-MP). In HIV, L-TP inhibits HIV-1 reverse transcriptase (RT) via DNA chain termination after incorporation of the nucleoside analogue into viral DNA. In HBV, incorporation of L-MP into viral DNA by HBV polymerase results in DNA chain termination. L-TP is a weak inhibitor of mammalian DNA polymerases alpha and beta, and mitochondrial DNA polymerase. (NCI04)