Foscarnet is an antiviral compound that inhibits reverse transcriptase of HIV-1 and DNA polymerase of other viruses, including CMV and HSV. Inhibition of these enzymes prevents DNA synthesis and viral replication. Foscarnet chelates with metal ions and also mimics the pyrophosphate leaving group in DNA polymerase, inducing a closed/un-translocated conformational state. Additionally, foscarnet inhibits type II inorganic phosphate (Pi) transporters in smooth muscle cells, inhibiting Ca²⁺ deposition and vascular calcification.

References


