

[Open Peer Review on Qeios](#)

Sofosbuvir

National Cancer Institute

Source

National Cancer Institute. *Sofosbuvir*. NCI Thesaurus. Code C101263.

An orally available nucleotide prodrug and a hepatitis C virus (HCV) NS5B polymerase inhibitor with potential HCV inhibiting activity. Upon oral administration, sofosbuvir is metabolized to 2'-deoxy-2'-alpha-fluoro-beta-C-methyluridine-5'-monophosphate, which is then converted into the active triphosphate nucleotide that inhibits the NS5B polymerase, thereby preventing viral replication. The HCV NS5B protein, an RNA-dependent RNA polymerase, is essential for the replication of the viral HCV RNA genome.