Paritaprevir

National Cancer Institute

Source

National Cancer Institute. Paritaprevir. NCI Thesaurus. Code C123879.

An orally bioavailable, synthetic acylsulfonamide inhibitor of the hepatitis C virus (HCV) protease complex comprised of non-structural protein 3 and 4A (NS3/NS4A), with potential activity against HCV genotype 1. Upon administration, paritaprevir reversibly binds to the active center and binding site of the HCV NS3/NS4A protease and prevents NS3/NS4A protease-mediated polyprotein maturation. This disrupts both the processing of viral proteins and the formation of the viral replication complex, which inhibits viral replication in HCV genotype 1-infected host cells. NS3, a serine protease, is essential for the proteolytic cleavage of multiple sites within the HCV polyprotein and plays a key role during HCV ribonucleic acid (RNA) replication. NS4A is an activating factor for NS3. HCV is a small, enveloped, single-stranded RNA virus belonging to the Flaviviridae family, and infection is associated with the development of hepatocellular carcinoma (HCC).