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# Boceprevir

National Cancer Institute

## Source

National Cancer Institute. *Boceprevir*. NCI Thesaurus. Code C117292.

An orally bioavailable, synthetic tripeptide inhibitor of the nonstructural protein 3 and 4A complex (NS3/NS4A), with potential activity against hepatitis C virus (HCV) genotype 1. Upon administration, boceprevir reversibly binds to the active center of the HCV NS3/NS4A and prevents NS3/NS4A protease-mediated polyprotein maturation. This disrupts the processing of viral proteins and the formation of a viral replication complex, which inhibits viral replication in HCV genotype 1-infected host cells. NS3, a serine protease, is essential for the proteolytic cleavages within the HCV polyprotein and plays a key role during HCV viral RNA replication. NS4A is an activating factor for NS3. HCV is a small, enveloped, single-stranded RNA virus belonging to the Flaviviridae family.