

15-4001: Boceprevir

Alternative Name : SCH 503034, Victrelis,

Description

Molecular Formula: $C_{27}H_{45}N_5O_5$,

Molecular Weight: 519.7

Boceprevir is a protease inhibitor that covalently, yet reversibly, binds ($K_i = 14$ nM) to the catalytic site (Ser139) of hepatitis C virus (HCV) nonstructural protein 3/4A (NS3/4A), a serine protease that is essential for viral replication. It was shown to inhibit the NS3/4A protease in an in vitro HCV replicon system with an EC_{50} value of 200 nM.¹ Boceprevir can inhibit the activity of recombinant HCV genotype 1a and 1b NS3/4A protease enzymes in vitro with K_i values of 14 nM for each subtype.² It has been evaluated in phase III clinical studies in combination with the current standard of care for treatment of HCV.

Product Info

Amount :	1 mg / 5 mg
Purification :	≥98%
Content :	Boceprevir is supplied as a crystalline solid.
Storage condition :	Store at -20°C, product is stable for at least two years.

Application Note

Boceprevir is supplied as a crystalline solid. A stock solution may be made by dissolving the boceprevir in the solvent of choice. Boceprevir is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of boceprevir in ethanol and DMF is approximately 25 mg/ml and approximately 16 mg/ml in DMSO.

Boceprevir is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, boceprevir should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Boceprevir has a solubility of approximately 0.14 mg/ml in a 1:6 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

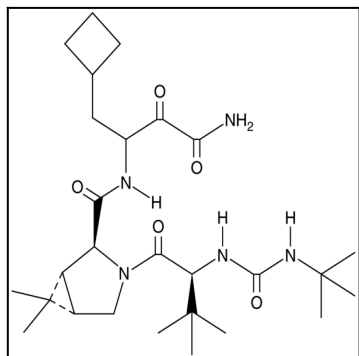


Figure-1: Structure of Boceprevir.