PRODUCT INFORMATION

Boceprevir
Item No. 18379

CAS Registry No.: 394730-60-0
Formal Name: (1R,2S,5S)-N-[3-amino-1-(cyclobutylmethyl)-2,3-dioxopropyl]-3-[(2S)-2-[[[(1,1-dimethylethyl)amino]carbonyl]amino]-3,3-azabicyclo[3.1.0]hexane-2-carboxamide

Synonyms: SCH 503034
MF: C_{27}H_{45}N_{5}O_{5}
FW: 519.7
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

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.

Description

Boceprevir is an inhibitor of hepatitis C virus (HCV) non-structural protease 3/4A (NS3/4A; K_{i} = 14 nM for the HCV genotype 1b enzyme). Boceprevir inhibits HCV replication in Huh7 cells (EC_{50} = 200 nM). It also inhibits severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) main protease (M_{pro}; K_{i} = 1.8 µM) and reduces cytopathic effects of SARS-CoV-2 in Vero cells (EC_{50} = 1.31 µM). Formulations containing boceprevir have been used in the treatment of HCV.

References