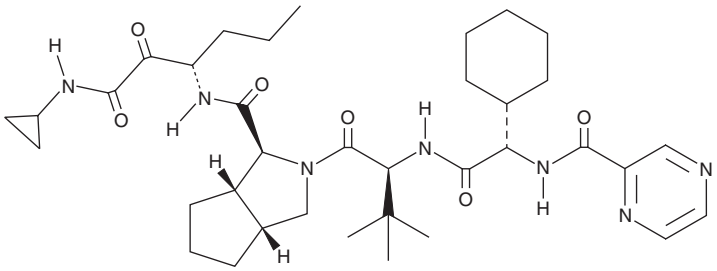
PRODUCT INFORMATION

Telaprevir

Item No. 20054

CAS Registry No.:	402957-28-2
Formal Name:	(1S,3aR,6aS)-(2S)-2-cyclohexyl-N-(2-pyrazinylcarbonyl)glycyl-3-methyl-L-valyl-N-[(1S)-1-[2-(cyclopropylamino)-2-oxoacetyl]butyl]octahydro-cyclopenta[c]pyrrole-1-carboxamide
Synonyms:	LY570310, VX-950
MF:	$C_{36}H_{53}N_7O_6$
FW:	679.9
Purity:	≥95%
UV/Vis.:	λ_{max}: 268 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Telaprevir is supplied as a crystalline solid. A stock solution may be made by dissolving the telaprevir in the solvent of choice), which should be purged with an inert gas. Telaprevir is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of telaprevir in these solvents is approximately 3 and 5 mg/ml, respectively.

Telaprevir is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, telaprevir should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Telaprevir has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Telaprevir is an inhibitor of hepatitis C virus (HCV) nonstructural protease 3/4A (NS3/4A; K_i = 7 nM).[1] It inhibits viral replication in genotype 1b HCV replicon cells and isolated human fetal hepatocytes infected with genotype 1a HCV-positive patient sera (IC_{50}s = 354 and 280 nM, respectively). Telaprevir (10-300 mg/kg) reduces plasma levels of a secreted placental alkaline phosphatase (SEAP) reporter gene in a mouse model of HCV NS3/4A protease activity. Formulations containing telaprevir have been used in the treatment of HCV.

Reference

1. Perni, R.B., Almquist, S.J., Byrn, R.A., *et al.* Preclinical profile of VX-950, a potent, selective, and orally bioavailable inhibitor of hepatitis C virus NS3-4A serine protease. *Antimicrob. Agents Chemother.* **50(3)**, 899-909 (2006).

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