# PRODUCT INFORMATION

## Elbasvir

*Item No. 24031*

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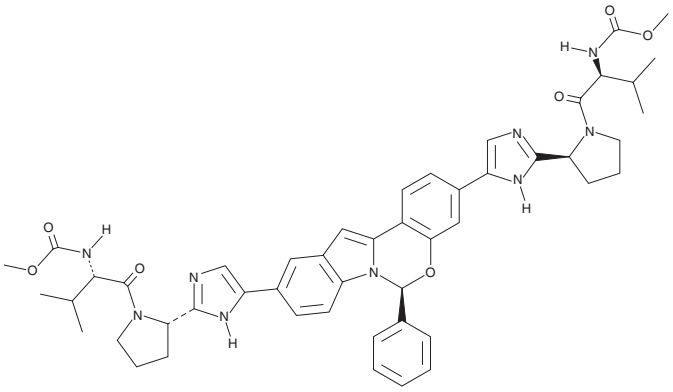
|---|---|
| **CAS Registry No.:** | 1370468-36-2 |
| **Formal Name:** | N,N'-[[(6S)-6-phenyl-6H-indolo[1,2-c][1,3]benzoxazine-3,10-diyl]*bis*[1H-imidazole-5,2-diyl-(2S)-2,1-pyrrolidinediyl[(1S)-1-(1-methylethyl)-2-oxo-2,1-ethanediyl]]]*bis*-carbamic acid, C,C'-dimethyl ester |
| **Synonym:** | MK-8742 |
| **MF:** | $C_{49}H_{55}N_9O_7$ |
| **FW:** | 882.0 |
| **Purity:** | ≥98% |
| **UV/Vis.:** | $\lambda_{max}$: 284, 352, 369 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

Elbasvir is supplied as a crystalline solid. A stock solution may be made by dissolving the elbasvir in the solvent of choice, which should be purged with an inert gas. Elbasvir is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of elbasvir in ethanol and DMF is approximately 33 mg/ml and approximately 20 mg/ml in DMSO.

Elbasvir is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, elbasvir should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Elbasvir has a solubility of approximately 0.33 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Elbasvir is a direct-acting antiviral drug that potently inhibits hepatitis C virus (HCV) non-structural protein 5A (NS5A) with an $EC_{50}$ value of 2.2 pM in Huh7 human liver cancer cells expressing pH77S.3/GLuc2A, a cell-culture adapted HCV16 genotype 1a derivative and luciferase reporter, following a 48-hour exposure *in vitro*.[1,2] NS5A is essential for HCV RNA synthesis and viral assembly, and elbasvir inhibits the assembly of new viral replicase complexes when used at a concentration of 50 pM.[2] It exhibits potent inhibitory activity against a broad range of HCV genotypes with $EC_{50}$ values of 0.0002 to 34 nM in Huh7 cells expressing replicons of HCV genotype 4 NS5A and $EC_{50}$ values of less than 0.2 nM for replicons from all other tested genotypes except 2b.[1,3,4] Formulations containing elbasvir have been used alone and in combination with NS3/4A protease inhibitors in the treatment of HCV.

### References


1. Lahser, F.C., Bystol, K., Curry, S., *et al. Antimicrob. Agents Chemother.* **60(5)**, 2954-2964 (2016).
2. McGivern, D.R., Masaki, T., Williford, S., *et al. Gastroenterology* **147(2)**, 453-462 (2014).
3. Asante-Appiah, E., Curry, S., McMonagle, P., *et al. Antimicrob. Agents Chemother.* **61(7)**, e00363-e00417 (2017).
4. Liu, R., Curry, S., McMonagle, P., *et al. Antimicrob. Agents Chemother.* **59(11)**, 6922-6929 (2015).





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