

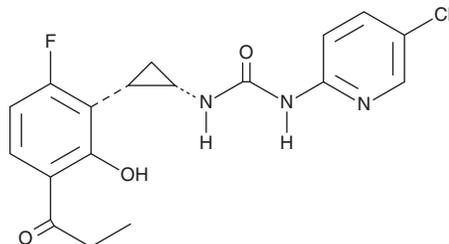
# PRODUCT INFORMATION



## MIV-150

Item No. 9002360

**CAS Registry No.:** 231957-54-3  
**Formal Name:** N-(5-cyano-2-pyridinyl)-N-[(1S,2S)-2-[6-fluoro-2-hydroxy-3-(1-oxopropyl)phenyl]cyclopropyl]-urea  
**Synonym:** PC-815  
**MF:** C<sub>19</sub>H<sub>17</sub>FN<sub>4</sub>O<sub>3</sub>  
**FW:** 368.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 210, 262 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

MIV-150 is supplied as a crystalline solid. A stock solution may be made by dissolving the MIV-150 in the solvent of choice. MIV-150 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of MIV-150 in ethanol is approximately 0.25 mg/ml and approximately 30 mg/ml in DMSO and DMF.

MIV-150 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MIV-150 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. MIV-150 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

MIV-150 is a tight-binding, allosteric inhibitor of reverse transcriptase that is active against HIV-1 and HIV-2 (both EC<sub>50</sub>s = 1 nM *in vitro*).<sup>1</sup> It has been shown to inactivate viruses that are resistant to other antiviral drugs, including non-nucleoside reverse transcriptase inhibitors, nucleoside reverse transcriptase inhibitors, and protease inhibitors.<sup>1</sup> Although MIV-150 possesses poor oral bioavailability, it demonstrates efficacy when formulated as a topical microbicide.<sup>2,3</sup>

### References

1. Fernández-Romero, J.A., Thorn, M., Turville, S.G., *et al.* Carrageenan/MIV-150 (PC-815), a combination microbicide. *Sex. Transm. Dis.* **34(1)**, 9-14 (2007).
2. Turville, S.G., Aravantinou, M., Miller, T., *et al.* Efficacy of Carraguard<sup>®</sup>-based microbicides *in vivo* despite variable *in vitro* activity. *PLoS One* **3(9)**, e3162 (2008).
3. Singer, R., Derby, N., Rodriguez, A., *et al.* The nonnucleoside reverse transcriptase inhibitor MIV-150 in carrageenan gel prevents rectal transmission of simian/human immunodeficiency virus infection in macaques. *J. Virol.* **85(11)**, 5504-5512 (2011).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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