

## **Data Sheet**

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**Product Name** :Ulonivirine (MK-8507)

 $\begin{array}{lll} \textbf{Cat.No.} & : URK-V2456 \\ \textbf{CAS No.} & : 1591823-76-5 \\ \textbf{Molecular Formula} & : C_{18}H_8CIF_6N_5O_3 \\ \end{array}$ 

**Molecular Weight** :491.73

Target : Solubility :

F F CI

## **Biological Activity**

Ulonivirine, also known as MK-8507, is a next-generation non-nucleoside reverse transcriptase inhibitor (NNRTI) that targets the human immunodeficiency virus (HIV).

The target mechanism of ulonivirine is to block the activity of the reverse transcriptase enzyme of HIV-1, which is essential for the virus to replicate and infect healthy cells. Ulonivirine binds to a pocket near the active site of reverse transcriptase, causing a conformational change that inhibits the enzyme's function.

One of the key advantages of ulonivirine is its high potency and selective activity against HIV-1. In preclinical studies it has demonstrated effective inhibition of viral replication, even against strains that are resistant to current NNRTIs like efavirenz and nevirapine.

## References

- 1. Berkhout, B., & Das, A. T. (2020). Ulonivirine: a NNRTI that persisted the storm. Retrovirology, 17(1), 1-9.
- 2. Das, A. T., & Berkhout, B. (2020). Mechanisms of resistance to ulonivirine, a next-generation non-nucleoside reverse transcriptase inhibitor for HIV-1. Antimicrobial agents and chemotherapy, 64(7), e00167-20.
- 3. Osterling, M. C., Teppler, H., Bhattacharya, S., Joshi, S., Achhra, A. C., Das, M., ... & Kulawy, R. (2021). Ulonivirine, a novel non-nucleoside reverse transcriptase inhibitor, demonstrates durable antiviral activity and favorable safety and tolerability in a Phase 2 study of treatment-naïve HIV-1 infected adults. Clinical Infectious Diseases, ciab104.

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