## **Product** Data Sheet

## Oseltamivir-d<sub>5</sub>

Cat. No.: HY-13317S3

CAS No.: 1093851-63-8

Molecular Formula:  $C_{16}H_{23}D_5N_2O_4$ Molecular Weight: 317.44

Target: Influenza Virus
Pathway: Anti-infection

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

## **BIOLOGICAL ACTIVITY**

Description	Oseltamivir-d <sub>5</sub> is the deuterium labeled Oseltamivir[1]. Oseltamivir is an influenza virus neuraminidase inhibitor (NAI). Oseltamivir inhibits influenza A/H3N2, A/H1N1, and B viruses with mean IC50 of 0.67, 0.9, 1.34 and 13 nM, respectively. Anti-influenza A and B agent[2].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## **REFERENCES**

 $[1]. \ Russak \ EM, et \ al. \ Impact \ of \ Deuterium \ Substitution \ on \ the \ Pharmacokinetics \ of \ Pharmaceuticals. \ Ann \ Pharmacother. \ 2019 \ Feb; 53(2): 211-216.$ 

[2]. O Ferraris, et al. Sensitivity of Influenza Viruses to Zanamivir and Oseltamivir: A Study Performed on Viruses Circulating in France Prior to the Introduction of Neuraminidase Inhibitors in Clinical Practice. Antiviral Res. 2005 Oct;68(1):43-8.

Caution: Product has not been fully validated for medical applications. For research use only.

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