Product Data Sheet

Oseltamivir-d₅ phosphate

Cat. No.: HY-17016S Molecular Formula: $C_{16}H_{26}D_5N_2O_8P$

Molecular Weight: 415.43

Target: Influenza Virus; Isotope-Labeled Compounds

Pathway: Anti-infection; Others

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

Analysis.

BIOLOGICAL ACTIVITY

Description	Oseltamivir- d_5 (phosphate) is the deuterium labeled Oseltamivir phosphate. Oseltamivir phosphate (GS 4104) is a neuraminidase inhibitor recommended for the treatment and prophylaxis of influenza A and B[1][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 ^[1] . 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;53(2):211-216.

[2]. de Oliveira JT, et al. Anti-influenza neuraminidase inhibitor Oseltamivir phosphate induces canine mammary cancer cell aggressiveness. PLoS One. 2015 Apr 7;10(4):e0121590.

[3]. Huang H, et al. Transplacental transfer of Oseltamivir phosphate and its metabolite Oseltamivir carboxylate using the ex vivo human placenta perfusion model in Chinese Hans population. J Matern Fetal Neonatal Med. 2016 Aug 8:1-5.

[4]. Li P, et al. A Simple and Robust Approach for Evaluation of Antivirals Using a Recombinant Influenza Virus Expressing Gaussia Luciferase. Viruses. 2018 Jun 13;10(6). pii: E325.

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

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