Product Data Sheet

Fusidic acid-d6

Cat. No.: HY-B1350S Molecular Formula: $C_{31}H_{42}D_6O_6$

Molecular Weight: 522.75

Target: Bacterial; Antibiotic

Pathway: Anti-infection

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

Analysis.

BIOLOGICAL ACTIVITY

Description	Fusidic acid-d6 (Fusidate-d6) is the deuterium labeled Fusidic acid. Fusidic acid (Fusidate) a bacteriostatic antibiotic produced from the Fusidium coccineum fungus, belongs to the class of steroids. Fusidic acid has no corticosteroid effects. Fusidic acid inhibits the growth of bacteria by preventing the release of translation elongation factor G (EF-G) from the ribosome ^{[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.

 $[2]. \ Curbete \ MM, et al.\ A\ Critical\ Review\ of\ the\ Properties\ of\ Fusidic\ Acid\ and\ Analytical\ Methods\ for\ Its\ Determination.\ Crit\ Rev\ Anal\ Chem.\ 2016;46(4):352-360.$

[3]. Payne AJ, et al. Fusidic acid is an effective treatment against Toxoplasma gondii and Listeria monocytogenes in vitro, but not in mice. Parasitol Res. 2013;112(11):3859-3863.

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

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