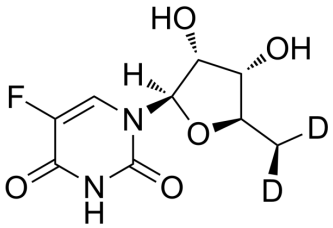
Doxifluridine-d2

Cat. No.:	HY-B0021S
CAS No.:	84258-25-3
Molecular Formula:	$C_9H_9D_2FN_2O_5$
Molecular Weight:	248.2
Target:	Nucleoside Antimetabolite/Analog
Pathway:	Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Doxifluridine-d_2 is the deuterium labeled Doxifluridine[1]. Doxifluridine is a thymidine phosphorylase activator for PC9-DPE2 cells with IC50 of 0.62 μM.
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 Feb;53(2):211-216.

[2]. Dipartimento di Chimica, Università degli Studi della Basilicata, Potenza, In vitro toxicity of N3-methyl-5'-deoxy-5-fluorouridine, a novel metabolite of doxifluridine: a bioanalytical investigation. J Pharm Biomed Anal. 1998 May;17(1):11-6.

[3]. Baek IH, Lee BY, Kim MS, Pharmacokinetic analysis of doxifluridine and its metabolites, 5-fluorouracil and 5-fluorouridine, after oral administration in beagle dogs. Eur J Drug Metab Pharmacokinet. 2013 Apr 7.

[4]. Yoshikawa T, Tsuburaya A, Shimada K, A phase II study of doxifluridine and docetaxel combination chemotherapy for advanced or recurrent gastric cancer. Gastric Cancer. 200912(4):212-8.

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