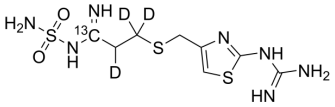
Famotidine-$^{13}C,d_3$

Cat. No.:	HY-B0377S
CAS No.:	2744683-81-4
Molecular Formula:	$C_7{}^{13}CH_{12}D_3N_7O_2S_3$
Molecular Weight:	341.46
Target:	Histamine Receptor; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Famotidine-$^{13}C,d_3$ is the ^{13}C- and deuterium labeled Famotidine. Famotidine (MK-208) is a competitive histamine H2-receptor antagonist. Its main pharmacodynamic effect is the inhibition of gastric secretion.
IC_{50} & Target	H_2 Receptor
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[63]. 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):211-223.

[2]. Inan, A., et al., Effects of the histamine H2 receptor antagonist famotidine on the healing of colonic anastomosis in rats. Clinics (Sao Paulo), 2009. 64(6): p. 567-70.

[3]. Miyata, K., et al., Studies on the mechanism for the gastric mucosal protection by famotidine in rats. Jpn J Pharmacol, 1991. 55(2): p. 211-22.

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