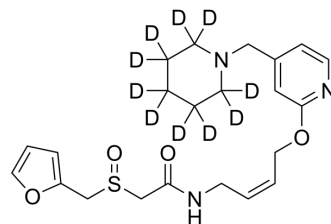


## Lafutidine-d<sub>10</sub>

<b>Cat. No.:</b>	HY-B0160S
<b>CAS No.:</b>	1795136-26-3
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>19</sub> D <sub>10</sub> N <sub>3</sub> O <sub>4</sub> S
<b>Molecular Weight:</b>	441.61
<b>Target:</b>	Histamine Receptor; Isotope-Labeled Compounds
<b>Pathway:</b>	GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Lafutidine-d <sub>10</sub> is deuterium labeled Lafutidine. Lafutidine (FRG-8813) is a histamine H <sub>2</sub> -receptor antagonist (H <sub>2</sub> RA), with proven gastric mucosal protective effects. Lafutidine can be used for the research of gastroesophageal reflux disease[1].
<b>In Vitro</b>	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;53(2):211-216.
- [2]. Mitsuaki Okayama, et al. Protective effect of lafutidine, a novel histamine H<sub>2</sub>-receptor antagonist, on dextran sulfate sodium-induced colonic inflammation through capsaicin-sensitive afferent neurons in rats. *Dig Dis Sci*. 2004 Oct;49(10):1696-704.
- [3]. Motoko Nakano, et al. Possible involvement of host defense mechanism in the suppression of rat acute reflux esophagitis by the particular histamine H<sub>2</sub> receptor antagonist lafutidine. *Pharmacology*. 2012;90(3-4):205-11.
- [4]. Tetsuhiro Sugiyama, et al. Lafutidine facilitates calcitonin gene-related peptide (CGRP) nerve-mediated vasodilation via vanilloid-1 receptors in rat mesenteric resistance arteries. *J Pharmacol Sci*. 2008 Mar;106(3):505-11.

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

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