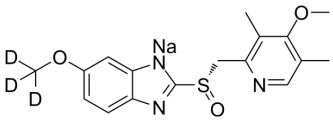
Esomeprazole-d_3 sodium

Cat. No.:	HY-17021S
Molecular Formula:	$C_{17}H_{15}D_3N_3NaO_3S$
Molecular Weight:	370.42
Target:	Proton Pump; Isotope-Labeled Compounds
Pathway:	Membrane Transporter/Ion Channel; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Esomeprazole-d_3 (sodium) is the deuterium labeled Esomeprazole. Esomeprazole ((S)-Omeprazole) is a potent and orally active proton pump inhibitor and reduces acid secretion through inhibition of the H+, K+-ATPase in gastric parietal cells. Esomeprazole has the potential for symptomatic gastroesophageal reflux disease research[1][2][3].
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]. Wayne Goh, et al. Use of proton pump inhibitors as adjunct treatment for triple-negative breast cancers. An introductory study. J Pharm Pharm Sci. 2014;17(3):439-46.

[3]. Christina Nelson, et al. Therapeutic Efficacy of Esomeprazole in Cotton Smoke-Induced Lung Injury Model. Front Pharmacol. 2017 Jan 26;8:16.

[4]. Thomas J Johnson, et al. Esomeprazole: a clinical review. Am J Health Syst Pharm. 2002 Jul 15;59(14):1333-9.

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