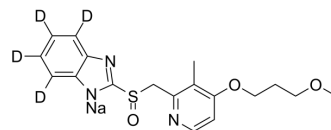


## Rabeprazole-d<sub>4</sub> sodium

<b>Cat. No.:</b>	HY-B0656AS
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>16</sub> D <sub>4</sub> N <sub>3</sub> NaO <sub>3</sub> S
<b>Molecular Weight:</b>	385.45
<b>Target:</b>	Proton Pump; Apoptosis; Isotope-Labeled Compounds
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Apoptosis; Others
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### BIOLOGICAL ACTIVITY

<b>Description</b>	Rabeprazole-d <sub>4</sub> (sodium) is the deuterium labeled Rabeprazole sodium. Rabeprazole sodium (LY307640 sodium) is a second-generation proton pump inhibitor (PPI) that irreversibly inactivates gastric H <sup>+</sup> /K <sup>+</sup> -ATPase. Rabeprazole sodium induces apoptosis. Rabeprazole sodium acts as an uridine nucleoside ribohydrolase (UNH) inhibitor with an IC <sub>50</sub> of 0.3 μM. Rabeprazole sodium can be used for the research of gastric ulcerations and gastroesophageal reflux[1][2][3].
<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]. Tara A Shea, et al. Identification of Proton-Pump Inhibitor Drugs That Inhibit *Trichomonas Vaginalis* Uridine Nucleoside Ribohydrolase. *Bioorg Med Chem Lett*. 2014 Feb 15;24(4):1080-4.
- [3]. Aly A M Shaalan, et al. Supplement With Calcium or Alendronate Suppresses Osteopenia Due to Long Term Rabeprazole Treatment in Female Mice: Influence on Bone TRAP and Osteopontin Levels. *Front Pharmacol*. 2020 May 13;11:583.
- [4]. Mengli Gu, et al. Rabeprazole Exhibits Antiproliferative Effects on Human Gastric Cancer Cell Lines. *Oncol Lett*. 2014 Oct;8(4):1739-1744.

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

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