Product Data Sheet

Product Name: Rabeprazole-d4
Cat. No.: GC63687

Chemical Properties

Cas. No.	934295-48-4		
Formula	$C_{18}H_{17}D_4N_3O_3S$	M.Wt	363.47
Solubility		Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Rabeprazole-d4		

Background

Rabeprazole-d_4 is intended for use as an internal standard for the quantification of rabeprazole by GC- or LC-MS. Rabeprazole is a proton pump inhibitor that selectively and irreversibly inhibits the gastric H^+/K^+ ATPase (IC_{50} = 72 nM).[1] It can be activated more rapidly and over a greater pH range than other proton pump inhibitors such as omeprazole , lansoprazole , and pantoprazole .[2] Rabeprazole (30 mg/kg) inhibits gastric acid secretion in pylorus-ligated rats and a rat model of gastric fistula.[3] It also inhibits the growth of several strains of *H. pylori in vitro* (MIC_{50}s = 1.57-3.13 µg/mL).[2] Formulations containing rabeprazole have been used in the treatment of ulcers, pathological hypersecretory conditions, and gastroesophageal reflux disease (GERD).

1.Morii, M., Takata, H., Fujisaki, H., et al.The potency of substituted benzimidazoles such as E3810, omeprazole, Ro 18-5364 to inhibit gastric H+,K+-ATPase is correlated with the rate of acid-activation of the inhibitorBiochem. Pharmacol.39(4)661-667(1990) 2.Williams, M.P., and Pounder, R.E.Review article: The pharmacology of rabeprazoleAliment. Pharmacol. Ther.13(3)3-10(1999) 3.Tomiyama, Y., Morii, M., and Takeguchi, N.Specific proton pump inhibitors E3810 and lansoprazole affect the recovery process of gastric secretion in rats differentlyBiochem. Pharmacol.48(11)2049-

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