
Product Data Sheet

Product Name: Rabeprazole

Cat. No.: GC16645

Chemical Properties

Cas. No. 117976-89-3

Chemical Name 2-(((4-(3-methoxypropoxy)-3-methylpyridin-2-yl)methyl)sulfinyl)-1H-benzo[d]imidazole

SMILES CC(C(OCCOC)=CC=N1)=C1CS(C2=NC3=CC=CC=C3N2)=O

Formula $C_{18}H_{21}N_3O_3S$ M.Wt 359.44

Solubility $\geq 12.65\text{mg/mL}$ in DMSO Storage Store at -20°C , stored under nitrogen

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C 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

Background

Rabeprazole is an antiulcer drug in the class of proton pump inhibitors. Target: Proton Pump Rabeprazole belongs to a class of antisecretory compounds (substituted benzimidazole proton-pump inhibitors) that do not exhibit anticholinergic or histamine H₂-receptor antagonist properties, but suppress gastric acid secretion by inhibiting the gastric H⁺/K⁺ATPase (hydrogen-potassium adenosine triphosphatase) at the secretory surface of the gastric parietal cell. Because this enzyme is regarded as the acid (proton) pump within the parietal cell, rabeprazole has been characterized as a gastric proton-pump inhibitor. Rabeprazole blocks the final step of gastric acid secretion. In gastric parietal cells, rabeprazole is protonated, accumulates, and is transformed to an active sulfenamide. When studied in vitro, rabeprazole is chemically activated at pH 1.2 with a half-life of 78 seconds.

References:

[1]. <http://www.drugbank.ca/drugs/DB01129>

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

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