
Product Data Sheet

Product Name: Pantoprazole

Cat. No.: GC12718

Chemical Properties

Cas. No. 102625-70-7

Formula C₁₆H₁₅F₂N₃O₄S

M.Wt

383.37

Solubility ≥ 17.95mg/mL in DMSO

Storage

Store at -20°C

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**

Pantoprazole is an inhibitor of H⁺/K⁺-ATPase [1].

Pantoprazole inhibits the activity of H⁺/K⁺-ATPase proton pump in the parietal cells of gastric mucosa. This inhibition affects the acid secretion and thus, pantoprazole are used as drugs for the treatment of various acid-related disorders. Pantoprazole is activated slowly. The activated sulfonamide of pantoprazole binds to Cys813 and Cys822 of the pump and inhibits acid secretion selectively. Pantoprazole inhibited lysosomal acidification with IC₅₀ value of 194 μM. The pKa values of pantoprazole are 3.83 (pKa1) and 0.11 (pKa2). Besides that, pantoprazole also shows antibacterial effects on *Helicobacter pylori* [1, 2].

References:

[1] Jungnickel P W. Pantoprazole: a new proton pump inhibitor. *Clinical therapeutics*, 2000, 22(11): 1268-1293.

[2] Sachs G, Shin J M, Howden C W. Review article: the clinical pharmacology of proton pump inhibitors. *Alimentary pharmacology & therapeutics*, 2006, 23(s2): 2-8.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA
