

Product Data Sheet

Product Name: Famotidine-13C-d3

Cat. No.: GC47331

Chemical Properties

Cas. No. 2744683-81-4

SMILES NS(N[13C](C([2H])C([2H])([2H])SCC1=CSC(NC(N)=N)=N1)=N)(=O)=O

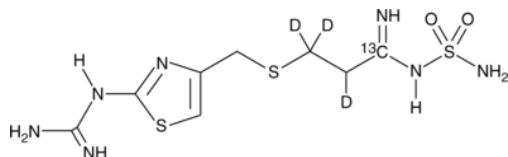
Formula C7[13C]H12D3N7O2S3 M.Wt 341.5

Solubility DMF: soluble, DMSO: soluble, Methanol: soluble 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

Famotidine-¹³C-d₃ is intended for use as an internal standard for the quantification of famotidine by GC- or LC-MS. Famotidine is a histamine H₂ receptor antagonist with a K_i value of 12 nM in fractionated guinea pig cerebral cortex membranes.¹ It is selective for H₂ over H₁ and muscarinic receptors (K_is = 4 and 28 μM, respectively, in bovine cerebral cortex).² Famotidine inhibits histamine-induced acid secretion in isolated canine parietal cells (IC₅₀ = 0.6 μM).³ It also suppresses histamine-induced gastric acid secretion in dogs when administered orally and in anesthetized rats when administered intraduodenally (ID₅₀s = 10 and 400 μg/kg, respectively).³ Formulations containing famotidine have been used in the treatment of ulcers, gastroesophageal reflux disease (GERD), and heartburn, as well as to decrease the risk of gastrointestinal toxicity associated with non-steroidal anti-inflammatory drugs (NSAIDs).

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

Product Data Sheet

1. Gajtkowski, G.A., Norris, D.B., Rising, T.J., et al. Specific binding of 3H-tiotidine to histamine H₂ receptors in guinea pig cerebral cortex *Nature* 304(5921)65-67(1983)
2. Kubo, N., Shirakawa, S., Kuno, T., et al. Antimuscarinic effects of antihistamines: Quantitative evaluation by receptor-binding assay *Jpn. J. Pharmacol.* 43(3)277-282(1987)
3. Nagaya, H., Inatomi, N., and Satoh, H. Differences in the antisecretory actions of the proton pump inhibitor AG-1749 (lansoprazole) and the histamine H₂-receptor antagonist famotidine in rats and dogs *Jpn. J. Pharmacol.* 55(4)425-436(1991)

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