

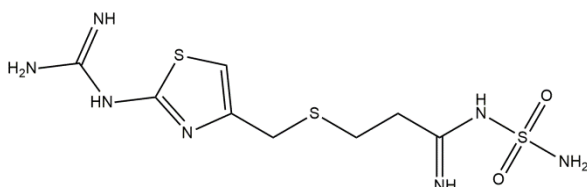
# Famotidine

04/20

**ALTERNATE NAME:** 3-[[2-(diaminomethylideneamino)-1,3-thiazol-4-yl]methylsulfanyl]-N'-sulfamoylpropanimidamide; pepcid; N'-(Aminosulfonyl)-3-[[2-(diaminomethyleneamino)-4-thiazolyl]methylthio]propanimidamide; 3-(((2-(Aminoiminomethyl)amino)-4-thiazolyl)methyl)thio)-N-(aminosulfonyl)propanimidamide; (1Z)-3-[[2-[(diaminomethylidene)amino]-1,3-thiazol-4-yl]methyl]sulfanyl]-N'-sulfamoylpropanimidamide; MK-208; YM-11170

**CATALOG #:** B3021-1G 1 g  
B3021-5G 5 g

## STRUCTURE:



**MOLECULAR FORMULA:** C<sub>8</sub>H<sub>15</sub>N<sub>7</sub>O<sub>2</sub>S<sub>3</sub>

**MOLECULAR WEIGHT:** 337.45

**CAS NUMBER:** 76824-35-6

**APPEARANCE:** White to Off-White Powder

**PURITY:** ≥98%

**SOLUBILITY:** ~30 mg/ml in DMSO

**DESCRIPTION:** Famotidine is a competitive inhibitor of histamine H<sub>2</sub>-receptor located on the basolateral membrane of the parietal cells. Famotidine inhibits histamine-induced acid secretion in isolated canine parietal cells with an IC<sub>50</sub> of 0.6 μM. It suppresses histamine-induced gastric acid secretion in dogs and anesthetized rats with ID<sub>50</sub> values of 10 and 400 μg/kg respectively. It is used to treat ulcers, gastroesophageal reflux disease and heartburn. Famotidine is also being investigated in clinical trials for treatment against COVID-19.

**STORAGE TEMPERATURE:** -20°C. Protect from air. Store under desiccating conditions.

**HANDLING:** Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

**REFERENCES:**

1. Nagaya, H., Inatomi, N., and Satoh, H. Differences in the antisecretory actions of the proton pump inhibitor AG-1749 (lansoprazole) and the histamine H<sub>2</sub>-receptor antagonist famotidine in rats and dogs. *Japanese Journal of Pharmacology* 55, 425-436 (1991).
2. [https://www.sciencemag.org/news/2020/04/new-york-clinical-trial-quietly-tests-heartburn-remedy-against-coronavirus?utm\\_campaign=news\\_daily\\_2020-04-27&et rid=17104723&et\\_cid=3304734#](https://www.sciencemag.org/news/2020/04/new-york-clinical-trial-quietly-tests-heartburn-remedy-against-coronavirus?utm_campaign=news_daily_2020-04-27&et rid=17104723&et_cid=3304734#)

## RELATED PRODUCTS:

Sucralfate (Cat. No. B2620)  
 Vonoprazan fumarate (Cat. No. B2292)  
 Bisdemethoxycurcumin (Cat. No. B2944)  
 Savolitinib (Cat. No. B3006)  
 Remdesivir (Cat. No. B2997)

**DISCLAIMER:** *FOR RESEARCH USE ONLY! Not to be used on humans.*