

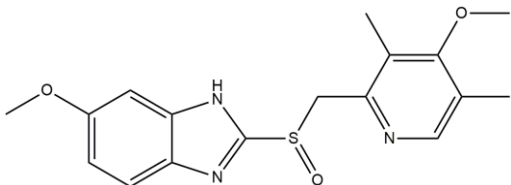
Omeprazole

06/20

ALTERNATE NAMES: 6-methoxy-2-[(4-methoxy-3,5-dimethylpyridin-2-yl)methylsulfinyl]-1H-benzimidazole; 5-Methoxy-2-(((4-methoxy-3,5-dimethyl-2-pyridyl)methyl)sulfinyl)benzimidazole; Prilosec; Losec

CATALOG #: B3052-500 500 mg
B3052-1000 1 g

STRUCTURE:



MOLECULAR FORMULA: C₁₇H₁₉N₃O₃S

MOLECULAR WEIGHT: 345.42

CAS NUMBER: 73590-58-6

APPEARANCE: White solid

PURITY: ≥98%

SOLUBILITY: ~5 mg/ml in ethanol
~30 mg/ml in DMSO and DMF

DESCRIPTION: Omeprazole is a proton pump inhibitor (PPI). It inhibits gastric H⁺/K⁺ ATPase with an IC₅₀ of 1.1 μM. It shows competitive inhibition of cytochrome P450 enzyme CYP2C19 activity with a K_i of 2-6 μM. It is used for the treatment of gastroesophageal reflux disease and peptic ulcer. It is in clinical trials for treating complications of COVID-19.

STORAGE TEMPERATURE: -20°C. Store in the dark. Product is light sensitive. 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. Li, XQ., Andersson, T.B., Ahlstrom, M. et al. Comparison of Inhibitory Effects of the Proton Pump-Inhibiting Drugs Omeprazole, Esomeprazole, Lansoprazole, Pantoprazole, and Rabeprazole on Human Cytochrome P450 Activities. *Comparative Study Drug Metab Dispos.* 32(8):821-7 (2004).
2. Smolka, A.J., Goldenring, J.R., Gupta, S., et al. Inhibition of gastric H,K-ATPase activity and gastric epithelial cell IL-8 secretion by the pyrrolizine derivative ML 3000. *BMC Gastroenterol.* 4(4), (2004).

RELATED PRODUCTS:

Vonoprazan fumarate (Cat. No. B2292)
Famotidine (Cat. No. B3021)
Remdesivir (Cat. No. B2997)
Sucralfate (Cat. No. B2620)
Bisdemethoxycurcumin (Cat. No. B2944)

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