



Product Information

Product ID E7357
CAS No. 161796-84-5
Chemical Name 6-methoxy-2-[(4-methoxy-3,5-dimethylpyridin-2-yl)methylsulfanyl]-1H-benzimidazole

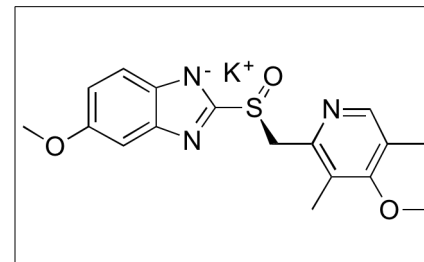
Synonym Omeprazole potassium

Formula C₁₇H₁₈N₃O₃S K
Formula Wt. 383.51
Melting Point 155C
Purity ≥98%
Solubility

Store Temp Ambient

Ship Temp Ambient

Description Esomeprazole is the (S) isomer of omeprazole, a proton pump inhibitor. Esomeprazole inhibits the gastric H⁺/K⁺ ATPase, preventing H⁺ secretion. Esomeprazole is clinically used to treat ulcers and gastroesophageal reflux disease (GERD). Esomeprazole exhibits anti-ulcer and anticancer chemotherapeutic activities. In vitro, esomeprazole induces autophagy by decreasing mTOR activity and induces caspase-dependent apoptosis, killing melanoma cells. In animal models, esomeprazole increases gastric antioxidant capacity and superoxide dismutase (SOD) activity, exhibiting some antioxidative benefit. Esomeprazole also induces apoptosis in osteoclasts and osteoblasts, potentially decreasing bone turnover. Additionally, this compound inhibits monoamine oxidase (MAO-A and MAO-B).



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
E7357	5 mg	\$71.70
E7357	25 mg	\$122.40
E7357	100 mg	\$344.30
E7357	500 mg	\$1080.50

References Sugano K, Choi MG, Lin JT, et al. Multinational, double-blind, randomised, placebo-controlled, prospective study of esomeprazole in the prevention of recurrent peptic ulcer in low-dose acetylsalicylic acid users: the LAVENDER study. *Gut*. 2013 Dec 10. [Epub ahead of print]. PMID: 24326741.

Costa-Rodrigues J, Reis S, Teixeira S, et al. Dose-dependent inhibitory effects of proton pump inhibitors on human osteoclastic and osteoblastic cell activity. *FEBS J*. 2013 Oct;280(20):5052-64. PMID: 23937530.

Petzer A, Pienaar A, Petzer JP. The inhibition of monoamine oxidase by esomeprazole. *Drug Res (Stuttg)*. 2013 Sep;63(9):462-7. PMID: 23677700.

Marino ML, Fais S, Djavaheri-Mergny M, et al. Proton pump inhibition induces autophagy as a survival mechanism following oxidative stress in human melanoma cells. *Cell Death Dis*. 2010 Oct 21;1:e87. PMID: 21368860.

Saccar CL. The pharmacology of esomeprazole and its role in gastric acid related diseases. *Expert Opin Drug Metab Toxicol*. 2009 Sep;5(9):1113-24. PMID: 19606942.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.