

Product Information

Cat. No. O-104

OMEPRAZOLE

ANTRA; LOSEC

H⁺/K⁺ ATPase inhibitor; binds covalently to proton pump; inhibits gastric secretion.

Mol. Formula: C₁₇H₁₉N₃OS

Mol. Wt.: 345.42 (anhyd.)

m.p.: 156.2-157.2°C

CAS Registry No.: 73590-58-6

Chemical Name: 5-Methoxy-2-[[[4-methoxy-3,5-dimethyl-2-pyridinyl)methyl]sulfinyl]-1H-benzimidazole

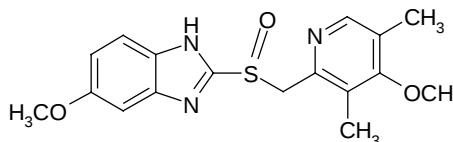
Physical Properties: White hygroscopic photosensitive solid.

Caution: This substance should be handled with care. Precautions should be taken to avoid contact by all routes of exposure. RTECS No. DD9087000.

Storage: Store desiccated at 4°C, protected from exposure to light.

Solubility: Soluble in DMSO (>19 mg/ml), ethanol (4.5 mg/ml) or water (0.5 mg/ml).

Disposal: Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. OBSERVE ALL LOCAL, STATE AND FEDERAL LAWS.



References:

1. *Merck Index* **12th Ed.**, No. 6977.
2. Ritter, M. et al. "Effect of inhibitors of Na⁺/H⁺-exchange and gastric H⁺/K⁺ ATPase on cell volume, intracellular pH and migration of human polymorphonuclear leucocytes." *Br. J. Pharmacol.* **124**, 627-638 (1998).
3. Morii, M. et al. "Different biochemical modes of action of two irreversible H⁺, K⁺ (+)-ATPase inhibitors, omeprazole and E3810." *J. Biol. Chem.* **268**, 21553-21559 (1993).
4. Lambrecht, N. et al. "Identification of the site of inhibition by omeprazole of a α - β fusion protein of the H,K-ATPase using site-directed mutagenesis." *J. Biol. Chem.* **273**, 13719-13728 (1998).
5. Gillen, D. et al. "Helicobacter pylori infection potentiates the inhibition of gastric acid secretion by omeprazole." *Gut* **44**, 468-475 (1999).

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