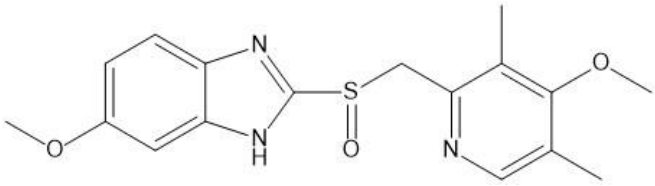
Catalog # 10-2822

Omeprazole

CAS# 73590-58-6

5-Methoxy-2-[[(4-methoxy-3,5-dimethyl-2-pyridinyl)methyl]sulfinyl]-1*H*-benzimidazole

Lot # X102925



H^+,K^+-ATPase inhibitor (IC_{50} = 5.8 µM). Clinically useful antisecretory and antiulcer agent.[1] Potent inhibitor of CYP2C19 (K_i=3.1 mM).[2] Inhibits swelling-dependent chloride channels.[3] Facilitates oral bioavailability of bioactive peptides such as oxytocin by raising stomach pH.[4] Displays broad spectrum antiviral activity.[5] Enhances efficacy of remdesivir (10-fold).[6]

1) Satoh *et al*. (1989), *Antisecretory and antiulcer activities of a novel proton pump inhibitor AG-1749 in dogs and rats*; J. Pharmacol. Exp. Ther., **248** 806
2) Kuzin *et al*. (2018), *Effects of the Proton Pump Inhibitors Omeprazole and Pantoprazole on the Cytochrome P450-Mediated Metabolism of Venlafaxine*; Clin. Pharmacokinet, **57** 729
3) Schmarda *et al.* (2000) *The gastric H,K-ATPase blocker lansoprazole is an inhibitor of chloride channels*; Br. J. Pharmacol., **129** 598
4) Maejima *et al.* (2020), *Oral oxytocin delivery with proton pump inhibitor pretreatment decreases food intake*; Peptides, **128** 170312
5) Wantanabe *et al.* (2020), *Selective Targeting of Virus Replication by Proton Pump Inhibitors*; Sci. Rep., **10** 4003
6) Bojkova *et al.* (2020), *SARS-CoV2 and SARS-CoV differ in their cell tropism and drug sensitivity profiles* bioRxiv, epub ahead of print DOI: 10.1101/2020.04.03.024257

PHYSICAL DATA

Molecular Weight:	345.42
Molecular Formula:	$C_{17}H_{19}N_3O_3S$
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 35 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

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