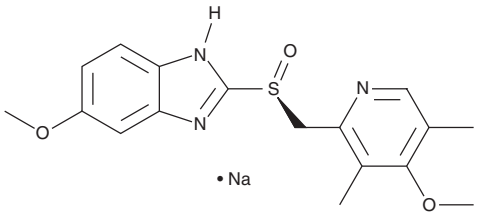
PRODUCT INFORMATION

Esomeprazole (sodium salt)

Item No. 17303

CAS Registry No.:	161796-78-7
Formal Name:	6-methoxy-2-[(S)-[(4-methoxy-3,5-dimethyl-2-pyridinyl)methyl]sulfinyl]-1H-benzimidazole, sodium salt
Synonyms:	(–)-Omeprazole, (S)-Omeprazole
MF:	$C_{17}H_{19}N_3O_3S \bullet Na$
FW:	345.4
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Esomeprazole (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the esomeprazole (sodium salt) in the solvent of choice, which should be purged with an inert gas. Esomeprazole (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of esomeprazole (sodium salt) in these solvents is approximately 10, 20, and 30 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of esomeprazole (sodium salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of esomeprazol (sodium salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Esomeprazole is an inhibitor of the gastric H^+/K^+-ATPase and the (S) enantiomer of omeprazole (Item No. 14880).[1] It reversibly inhibits the activity of the H^+/K^+-ATPase in an enzyme assay. Esomeprazole (30 mg/kg, s.c.) inhibits histamine-induced gastric acid secretion in rats. Formulations containing esomeprazole in complex with magnesium have been used as proton pump inhibitors (PPIs) in the treatment of gastroesophageal reflux disease (GERD), *H. pylori* eradication, and hypersecretory conditions, as well as in the prevention of non-steroidal anti-inflammatory drug-related gastric ulcer.

Reference

1. Shin, J.M. and Sachs, G. Restoration of acid secretion following treatment with proton pump inhibitors. *Gastroenterology* **123(5)**, 1588-1597 (2002).

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