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# Esomeprazole Sodium

National Cancer Institute

## Source

National Cancer Institute. *Esomeprazole Sodium*. NCI Thesaurus. Code C65539.

The sodium salt of the S-isomer of omeprazole, with gastric proton pump inhibitor activity. In the acidic compartment of parietal cells, esomeprazole is protonated and converted into the active achiral sulfenamide; the active sulfenamide forms one or more covalent disulfide bonds with the proton pump hydrogen-potassium adenosine triphosphatase (H<sup>+</sup>/K<sup>+</sup> ATPase), thereby inhibiting its activity and the parietal cell secretion of H<sup>+</sup> ions into the gastric lumen, the final step in gastric acid production. H<sup>+</sup>/K<sup>+</sup> ATPase is an integral membrane protein of the gastric parietal cell.