Dexlansoprazole

National Cancer Institute

Source

National Cancer Institute. Dexlansoprazole. NCI Thesaurus. Code C73192.

The R-isomer of lansoprazole and a substituted benzimidazole prodrug with selective and irreversible proton pump inhibitor activity. As a weak base, dexlansoprazole accumulates in the acidic environment of the secretory canaliculus of the gastric parietal cell where it is converted to an active sulfenamide form that binds to cysteine sulfhydryl groups on the luminal aspect of the proton pump hydrogen-potassium adenosine triphosphatase (H+/K+ ATPase), thereby inhibiting the pump's activity and the parietal cell secretion of H+ ions into the gastric lumen, the final step in gastric acid production.