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Pumaprazole

National Cancer Institute

Source

National Cancer Institute. *Pumaprazole*. NCI Thesaurus. Code C73221.

An imidazo-pyridine derivative with reversibly binding acid pump antagonist (APA) activity. Contrary to the mechanism of action of the proton pump inhibitors, which need to be activated by acid within the parietal cell canaliculus and which covalently react through the action of an active intermediate with the SH groups of the H⁺/K⁺-ATPase proton pump, pumaprazole competes reversibly with potassium binding on the extracytoplasmic face of the catalytic (alpha) subunit of the proton pump, immediately interrupting the pump's activity and the parietal cell secretion of H⁺ ions into the gastric lumen, the final step in gastric acid production.