



LKT Laboratories, Inc.

Lansoprazole

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## Product Information

**Product ID** L0254

**CAS No.** 103577-45-3

**Chemical Name** 1H-Benzimidazole, 2-(((3-methyl-4-(2,2,2-trifluoroethoxy)-2-pyridinyl)methyl)sulfinyl)-

**Synonym** AG-1749, Agopton, Lansox, Lanzor, Limpidex.

**Formula** C<sub>16</sub>H<sub>14</sub>F<sub>3</sub>N<sub>3</sub>O<sub>2</sub>S

**Formula Wt.** 369.36

**Melting Point** 178-182 °C (dec)

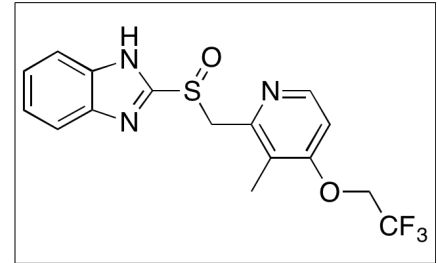
**Purity** ≥98%

**Solubility** Insoluble in water. Soluble in methanol and DMF.

**Store Temp** 4 °C

**Ship Temp** Ambient

**Description** Lansoprazole is a proton pump (H<sup>+</sup>/K<sup>+</sup> ATPase) inhibitor (PPI) that exhibits antacid and anti-inflammatory activities. Lansoprazole is clinically used to treat gastroesophageal reflux disease (GERD). Lansoprazole inhibits indomethacin-induced gastric damage by preventing activation of mitochondria- and Fas-mediated apoptosis signaling pathways. Lansoprazole also inhibits PMA-induced activation of ERK1/2 and LPS-induced activation of p38 MAPK in neutrophils and decreases levels of pro-inflammatory cytokines in macrophages.



**Bulk quantities available upon request**

Product ID	Size
L0254	250 mg
L0254	1 g

**References** Koshio O, Tansho S, Ubagai T, et al. Suppression of phosphorylation of extracellular-signal-regulated kinase and p38 mitogen-activated protein kinase in polymorphonuclear leukocytes by the proton pump inhibitor lansoprazole. *J Infect Chemother.* 2010 Apr;16(2):100-6. PMID: 20094750.

Maity P, Bindu S, Choubey V, et al. Lansoprazole protects and heals gastric mucosa from non-steroidal anti-inflammatory drug (NSAID)-induced gastropathy by inhibiting mitochondrial as well as Fas-mediated death pathways with concurrent induction of mucosal cell renewal. *J Biol Chem.* 2008 May 23;283(21):14391-401. PMID: 18375387.

Hinoki A, Yoshimura K, Fujita K, et al. Suppression of proinflammatory cytokine production in macrophages by lansoprazole. *Pediatr Surg Int.* 2006 Nov;22(11):915-23. PMID: 16932910.

Shin JM, Cho YM, Sachs G. Chemistry of covalent inhibition of the gastric (H<sup>+</sup>, K<sup>+</sup>)-ATPase by proton pump inhibitors. *J Am Chem Soc.* 2004 Jun 30;126(25):7800-11. PMID: 15212527.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.