



LKT Laboratories, Inc.

Pioglitazone Hydrochloride

Phone: 888-558-5227
651-644-8424
Fax: 888-558-7329
Email: getinfo@lktlabs.com
Web: lktlabs.com

Product Information

Product ID P6954

CAS No. 112529-15-4

Chemical Name 2,4-Thiazolidinedione, 5-((4-(2-(5-ethyl-2-pyridinyl)ethoxy)phenyl)methyl)-, monohydrochloride, (+)-

Synonym Actos, U-72107A.

Formula C₁₉H₂₀N₂O₃S • HCl

Formula Wt. 392.91

Melting Point 193-194 °C

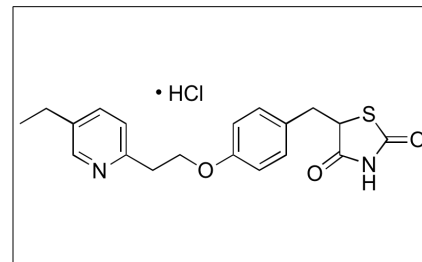
Purity ≥98%

Solubility Soluble in DMF, DMSO (79mg/mL). Slightly soluble in ethanol(4mg/mL). acetone or acetonitrile. Practically insoluble in water. Insoluble in

Store Temp 4 °C

Ship Temp Ambient

Description Pioglitazone is a thiazolidinedione that acts as an agonist at PPARα/γ receptors and also binds mitoNEET, a mitochondrial protein involved in energy homeostasis. Pioglitazone exhibits anti-diabetic, antacid, antidepressant, antinociceptive, and anti-diarrheal activities. In vivo, pioglitazone decreases levels of HDL, triglycerides, total cholesterol, insulin, blood glucose, and Hb1Ac. Pioglitazone may also have effects on angiogenesis, decreasing expression of HIF-1α and VEGF but increasing microvessel density in animal models of hind limb ischemia. This compound inhibits formation of ulcers in vivo potentially due to inhibition of IL-1β and iNOS and induction of cNOS. Additionally, pioglitazone decreases visceral hypersensitivity, suppresses defecation, and increases nociceptive thresholds in vivo.



Pricing and Availability

Bulk quantities available upon request

| Product ID | Size | List Price |
|------------|--------|------------|
| P6954 | 100 mg | \$52.50 |
| P6954 | 500 mg | \$149.90 |
| P6954 | 1 g | \$224.70 |

References Zhang M, Gao X, Bai SJ, et al. Effect of pioglitazone on expression of hypoxia-inducible factor 1α and vascular endothelial growth factor in ischemic hindlimb of diabetic rats. *Eur Rev Med Pharmacol Sci.* 2014;18(9):1307-14. PMID: 24867508.

Kemp DE, Schinagle M, Gao K, et al. PPAR-γ agonism as a modulator of mood: proof-of-concept for pioglitazone in bipolar depression. *CNS Drugs.* 2014 Jun;28(6):571-81. PMID: 24715548.

Paragomi P, Rahimian R, Kazemi MH, et al. Antinociceptive and antidiarrheal effects of pioglitazone in a rat model of diarrhoea-predominant irritable bowel syndrome: role of nitric oxide. *Clin Exp Pharmacol Physiol.* 2014 Feb;41(2):118-26. PMID: 24471407.

Moezi L, Heidari R, Amirghofran Z, et al. Enhanced anti-ulcer effect of pioglitazone on gastric ulcers in cirrhotic rats: the role of nitric oxide and IL-1β. *Pharmacol Rep.* 2013;65(1):134-43. PMID: 23563031.

Paddock ML, Wiley SE, Axelrod HL, et al. MitoNEET is a uniquely folded 2Fe 2S outer mitochondrial membrane protein stabilized by pioglitazone. *Proc Natl Acad Sci U S A.* 2007 Sep 4;104(36):14342-7. PMID: 17766440.

Gillies PS, Dunn CJ. Pioglitazone. *Drugs.* 2000 Aug;60(2):333-43; PMID: 10983737.

Yoshida H, Watanabe W, Oomagari H, et al. Citrus flavonoid naringenin inhibits TLR2 expression in adipocytes. *J Nutr Biochem.* 2013 Jul;24(7):1276-1284. PMID: 23333096.

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