

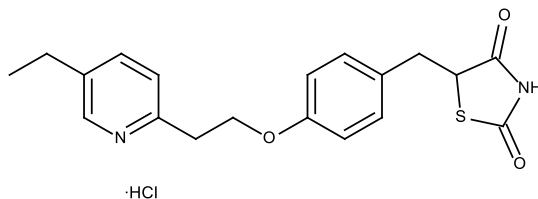
Catalog # 10-1010

Pioglitazone HCl

CAS# 112529-15-4

5-[[4-[2-(5-Ethyl-2-pyridinyl)ethoxy]phenyl]methyl]-2,4-thiazolidinedione hydrochloride

Lot # X104020



Pioglitazone is a clinically useful antidiabetic drug.¹ It is a selective agonist of the human peroxisome proliferator-activated receptor γ 1 (PPAR γ 1; EC₅₀ = 490 nM², 550nM³) with weak agonist activity at PPAR α and no activity at PPAR δ .² Inhibits mitochondrial pyruvate metabolism and glucose production in hepatocytes.⁴ Suppresses production of inflammatory cytokines and shows antidepressant-like activity in mouse models.⁵

- 1) Merck **14:7452**
- 2) Sakamoto *et al.* (2000), *Activation of human peroxisome proliferator-activated receptor (PPAR) subtypes by pioglitazone*; *Biochem. Biophys. Res. Commun.*, **278** 704
- 3) Wilson *et al.* (2000), *The PPARs: From Orphan Receptors to Drug Discovery*; *J. Med. Chem.*, **43** 527
- 4) Shannon *et al.* (2017), *Pioglitazone Inhibits Mitochondrial Pyruvate Metabolism and Glucose Production in Hepatocytes*; *FEBS J.*, **284** 451
- 5) Zhao *et al.* (2016), *The Antidepressant-Like Effects of Pioglitazone in a Chronic Mild Stress Mouse Model Are Associated With PPAR γ -Mediated Alteration of Microglial Activation Phenotypes*; *Neuroinflamm.*, **13** 259

PHYSICAL DATA

Molecular Weight:	392.90
Molecular Formula:	C ₁₉ H ₂₀ N ₂ O ₃ S·HCl
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO(at least 25 mg/mL)
Physical Description:	White solid
Storage and Stability:	Store as supplied at room temperature for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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