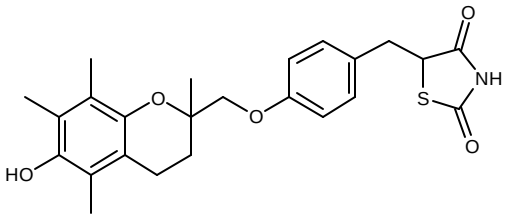
3050 Spruce Street, Saint Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Troglitazone

Product Number **T 2573**
Store at Room Temperature

CAS #: 97322-87-7
Synonyms: CS-045
(±)-5-[4-[(6-Hydroxy-2,5,7,8-tetramethylchroman-2-yl) methoxy]benzyl]-2,4-thiazolidinedione



Product Description

Molecular Formula: $C_{24}H_{27}NO_5S$
Molecular Weight: 441.5

Troglitazone, a thiazolidinedione, is a potent and selective PPARγ (peroxisome proliferator-activated receptor γ) agonist. It exhibits an EC_{50} of 550 nM for the human receptor and an EC_{50} of 780 nm for the mouse receptor.[1] No activation of PPARα or PPARδ was observed at up to 10 mM troglitazone. Troglitazone binds to the ligand binding domain (LBD) but does not stimulate the interaction of the PPARγ LBD with the transcriptional coactivators SRC-1, AIB1, TIF2, p300 or TRAP220.[2]

Troglitazone is an anti-diabetic, decreasing blood glucose in type II diabetes and stimulating glucose transport in adipocytes (EC_{50} = 1 μM).[3,4] It has anti-inflammatory and anti-tumor activity; inducing apoptosis via a p53 pathway.[5,6]

Reagent

The product is supplied as a solid.

Precautions and Disclaimer

Consult the MSDS for information regarding hazards and safe handling practices.

Preparation Instructions

Troglitazone is soluble in dimethyl sulfoxide (DMSO) at 20 mg/ml.

Storage/Stability

Store at room temperature.

References

1. Willson, T.M., et al., J. Med. Chem. **43**, 527-550 (2000).
2. Kodera, Y., et al., J. Biol. Chem., **275**, 33201-33204 (2000).
3. Fujiwara, T., et al., Life Sci., **67**, 2405-2416 (2000).
4. Young, P.W., et al., J. Pharmacol. Exp. Therap., **284**, 751-759 (1998).
5. Okura, T., et al., Eur. J. Pharmacol., **407**, 227-235 (2000).
6. Yoshizawa, K., et al., Cancer, **95**, 2243-2251 (2002).

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