

Certificate of Analysis

Print Date: Sep 16th 2021

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Product Name: Troglitazone Catalog No.: 3114 Batch No.: 4

CAS Number: 97322-87-7

IUPAC Name: 5-[[4-[(3,4-Dihydro-6-hydroxy-2,5,7,8-tetramethyl-2*H*-1-benzopyran-2-yl)methoxy]phenyl]methyl]

-2,4-thiazolidinedione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₄H₂₇NO₅S.¹/₄H₂O

Batch Molecular Weight: 446.04

Physical Appearance: Off-white solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 98.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 64.63 6.21 3.14 Found 64.33 6.24 3.14

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Product Information

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Description:

Troglitazone is a selective PPAR γ receptor agonist (EC $_{50}$ values are 780 and 555 nM at murine and human PPAR γ receptors respectively). Displays no activity at PPAR α or PPAR δ receptors. Antidiabetic agent; exerts potent glucose-lowering effects in insulin-resistant diabetic mice. Displays anti-invasive effect on human breast cancer cells; reduces migration, adhesion and spreading on fibronectin-coated plates. Also inhibits cell growth of hematopoietic cell lines. Inhibits lamellipodia formation and actin polymerization.

Physical and Chemical Properties:

Batch Molecular Formula: C24H27NO5S.14H2O

Batch Molecular Weight: 446.04 Physical Appearance: Off-white solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Kodera *et al* (2000) Ligand type-specific interactions of peroxisome-proliferator-activated receptor γ with transcriptional coactivators. J.Biol.Chem. **275** 33201. PMID: 10944516.

Willson et al (2000) The PPARs: from orphan receptors to drug discovery, J.Med.Chem. 43 527, PMID: 10691680.

Fujimura et al (1998) Effects of troglitazone on the growth and differentiation of hematopoietic cell lines. Int.J.Oncol. 13 1263. PMID: 9824642.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use