

# Small Molecules

## Troglitazone

NF- $\kappa$ B pathway inhibitor; Activates PPAR $\gamma$

Catalog # 73892  
73894

5 mg  
10 mg



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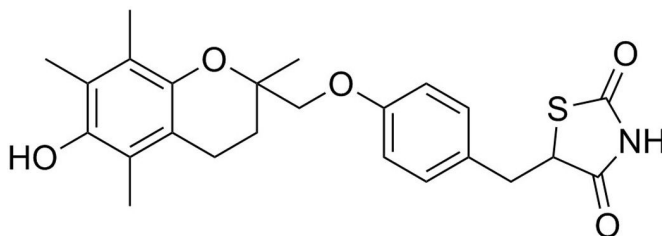
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## Product Description

Troglitazone is a potent and selective activator of peroxisome proliferator-activated receptor- $\gamma$  (PPAR $\gamma$ ) with  $EC_{50}$  = 0.55 and 0.78  $\mu$ M for human and mouse, respectively. Troglitazone does not inhibit PPAR $\alpha$  or PPAR $\delta$  at up to 10  $\mu$ M (Willson et al.). Troglitazone causes cell cycle arrest at phase G1, inducing caspase-dependent apoptosis in both HeLa and hepatocellular carcinoma cell lines (Chang et al.; Yoshizawa et al.).

Molecular Name:	Troglitazone
Alternative Names:	Resulin; Rezulin
CAS Number:	97322-87-7
Chemical Formula:	C <sub>24</sub> H <sub>27</sub> NSO <sub>5</sub>
Molecular Weight:	441.5 g/mol
Purity:	≥ 98%
Chemical Name:	5-[[4-[(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methoxy]phenyl]methyl]-2,4-thiazolidinedione

Structure:



## Properties

Physical Appearance:	A crystalline solid
Storage:	Product stable at -20°C as supplied. Protect product from prolonged exposure to light. For long-term storage store with a desiccant. Stable as supplied for 12 months from date of receipt.
Solubility:	· DMSO ≤ 65 mM · Absolute ethanol ≤ 0.5 mM For example, to prepare a 10 mM stock solution in DMSO, resuspend 1 mg in 227 $\mu$ L of DMSO.

Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application.

Compound has low solubility in aqueous media. For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.

## Published Applications

### DIFFERENTIATION

- Stimulates adipogenesis in 3T3-L1 cells (Jeong & Yoon).
- Inhibits macrophage differentiation (Chen Y et al.).

### CANCER RESEARCH

- Inhibits growth and induces apoptosis in non-small cell lung carcinoma, bladder cancer, cervical cancer, and prostate cancer cells (Chen H-M et al.; Santha et al.; Satoh et al.; Yan et al.).
- Promotes cytostatic effects in MDA-MB-231 and MCF-7 breast cancer cell lines (Berthe et al.).

## References

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