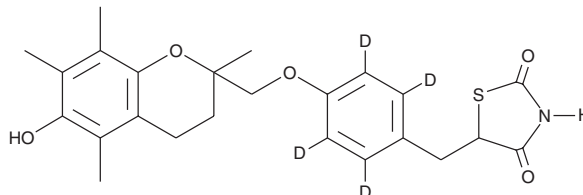


PRODUCT INFORMATION



Troglitazone-d₄ Item No. 28908

CAS Registry No.: 2749370-85-0
Formal Name: 5-[[4-[(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methoxy]phenyl-d₄]methyl]-2,4-thiazolidinedione
MF: C₂₄H₂₃D₄NO₅S
FW: 445.6
Chemical Purity: ≥95% (Troglitazone)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Troglitazone-d₄ is intended for use as an internal standard for the quantification of troglitazone (Item No. 71750) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Troglitazone-d₄ is supplied as a solid. A stock solution may be made by dissolving the troglitazone-d₄ in the solvent of choice, which should be purged with an inert gas. Troglitazone-d₄ is soluble in methanol.

Description

Troglitazone is a selective agonist of peroxisome proliferator-activated receptor γ (PPAR γ ; EC₅₀s = 0.78 and 0.55 μ M for the mouse and human receptors, respectively, in a transactivation assay).¹ It is selective for PPAR γ over PPAR α and PPAR δ , at which it is inactive at concentrations up to 10 μ M. Troglitazone (500 mg/kg twice per day) exhibits antihyperglycemic and antihyperlipidemic properties in Zucker diabetic fatty rats, reducing plasma glucose and triglyceride levels by 61 and 87%, respectively.² It also induces cell cycle arrest at the G₁ phase in SK-HEP-1 and Hep3B hepatocellular carcinoma cells when used at a concentration of 10 μ M and increases apoptosis in these cells at concentrations of 30 μ M and higher.³

References

- Willson, T.M., Brown, P.J., Sternbach, D.D., *et al.* The PPARs: From orphan receptors to drug discovery. *J. Med. Chem.* **43**(4), 527-550 (2000).
- Henke, B.R., Blanchard, S.G., Brackeen, M.F., *et al.* N-(2-Benzoylphenyl)-L-tyrosine PPAR γ agonists. 1. Discovery of a novel series of potent antihyperglycemic and antihyperlipidemic agents. *J. Med. Chem.* **41**(25), 5020-5036 (1998).
- Yoshizawa, K., Cioca, D.P., Kawa, S., *et al.* Peroxisome proliferator-activated receptor γ ligand troglitazone induces cell cycle arrest and apoptosis of hepatocellular carcinoma cell lines. *Cancer* **95**(10), 2243-2251 (2002).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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