

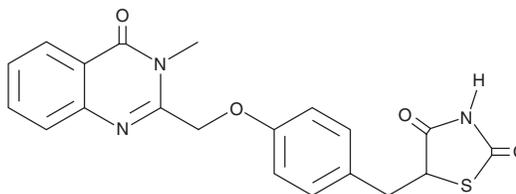
PRODUCT INFORMATION



Balaglitazone

Item No. 28866

CAS Registry No.: 199113-98-9
Formal Name: 5-[[4-[(3,4-dihydro-3-methyl-4-oxo-2-quinazolinyloxy)methoxy]phenyl]methyl]-2,4-thiazolidinedione
Synonym: DRF 2593
MF: C₂₀H₁₇N₃O₄S
FW: 395.4
Purity: ≥98%
UV/Vis.: λ_{max}: 226 nm
Supplied as: A crystalline 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

Balaglitazone is supplied as a crystalline solid. A stock solution may be made by dissolving the balaglitazone in the solvent of choice, which should be purged with an inert gas. Balaglitazone is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of balaglitazone in these solvents is approximately 30 mg/ml.

Balaglitazone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, balaglitazone should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Balaglitazone has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Balaglitazone is a partial agonist of peroxisome proliferator-activated receptor γ (PPAR γ ; EC₅₀ = 1.351 μ M in a transactivation assay).¹ It decreases non-fasting plasma glucose levels in diabetic *db/db* mice (ED₉₀ = 3 mg/kg per day). Balaglitazone (5 and 10 mg/kg per day) decreases plasma levels of insulin and glucose in an oral glucose tolerance test in diet-induced obese rats.² In doxorubicin-resistant K562 human myelogenous leukemia cells, balaglitazone (25 μ M) decreases P-glycoprotein (P-gp) levels, increases intracellular accumulation of the P-gp substrate rhodamine 123 (Item No. 16672), and sensitizes cells to doxorubicin (Item No. 15007).³

References

1. Larsen, P.J., Lykkegaard, K., Larsen, L.K., *et al.* Dissociation of antihyperglycaemic and adverse effects of partial peroxisome proliferator-activated receptor (PPAR- γ) agonist balaglitazone. *Eur. J. Pharmacol.* **596(1-3)**, 173-179 (2008).
2. Henriksen, K., Byrjalsen, I., Nielsen, R.H., *et al.* A comparison of glycemic control, water retention, and musculoskeletal effects of balaglitazone and pioglitazone in diet-induced obese rats. *Eur. J. Pharmacol.* **616(1-3)**, 340-345 (2009).
3. Yousefi, B., Azimi, A., Majidinia, M., *et al.* Balaglitazone reverses P-glycoprotein-mediated multidrug resistance via upregulation of PTEN in a PPAR γ -dependent manner in leukemia cells. *Tumour Biol.* **39(10)**, (2017).

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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/06/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM