

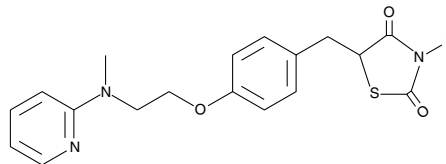
# Product Information



## Rosiglitazone

Item No. 71740

**CAS Registry No.:** 122320-73-4  
**Formal Name:** 5-[[4-(2-methyl-2-pyridinylamino)ethoxy]phenyl]methyl]-2,4-thiazolidinedione  
**Synonym:** BRL 49653  
**MF:** C<sub>18</sub>H<sub>19</sub>N<sub>3</sub>O<sub>3</sub>S  
**FW:** 357.4  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 248, 311 nm



### Laboratory Procedures

For long term storage, we suggest that rosiglitazone be stored as supplied at -20°C. It should be stable for at least two years.

Rosiglitazone is supplied as a crystalline solid. A stock solution may be made by dissolving the rosiglitazone in an organic solvent purged with an inert gas. Rosiglitazone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of rosiglitazone in these solvents is approximately 1, 34, and 25 mg/ml respectively.

Rosiglitazone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, rosiglitazone should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Rosiglitazone has a solubility of approximately 0.5 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.

Thiazolidinediones are a group of structurally related peroxisome proliferator-activated receptor  $\gamma$  (PPAR $\gamma$ ) agonists with antidiabetic actions *in vivo*.<sup>1,2</sup> Rosiglitazone (BRL 49653) is a prototypical thiazolidinedione and has served as a reference compound for this class.<sup>3</sup> Rosiglitazone is a potent and selective PPAR $\gamma$  ligand. It binds to the PPAR $\gamma$  ligand-binding domain with a K<sub>d</sub> of 43 nM.<sup>3</sup> It activates luciferase-based expression constructs PPAR $\gamma$ <sub>1</sub> and PPAR $\gamma$ <sub>2</sub> with EC<sub>50</sub> values of approximately 30 nM and 100 nM, respectively.<sup>3</sup> Rosiglitazone is active *in vivo* as an antidiabetic agent in the *ob/ob* mouse model, and has been used as an oral hypoglycemic agent in the treatment of Type II diabetes in humans for many years.

### References

- Willson, T.M., Cobb, J.E., Cowan, D.J., *et al.* The structure-activity relationship between peroxisome proliferator-activated receptor  $\gamma$  agonism and the antihyperglycemic activity of thiazolidinediones. *J. Med. Chem.* **39**, 665-668 (1996).
- Cantello, B.C.C., Cawthorne, M.A., Cottam, G.P., *et al.* [[ $\omega$ -(Heterocyclamino)alkoxy]benzyl]-2,4-thiazolidinediones as potent antihyperglycemic agents. *J. Med. Chem.* **37**, 3977-3985 (1994).
- Lehmann, J.M., Moore, L.B., Smith-Oliver, T.A., *et al.* An antidiabetic thiazolidinedione is a high affinity ligand for peroxisome proliferator-activated receptor  $\gamma$  (PPAR $\gamma$ ). *J. Biol. Chem.* **270**, 12953-12956 (1995).

### Related Products

CAY10638 - Item No. 13695 • 15-deoxy- $\Delta^{12,14}$ -Prostaglandin J<sub>2</sub> - Item No. 18570 • Azelaoyl PAF - Item No. 60924 • GW 9662 - Item No. 70785 • BADGE - Item No. 70790 • PPAR $\gamma$ -PAK - Item No. 71000 • Ciglitazone - Item No. 71730 • Rosiglitazone (potassium salt) - Item No. 71742

### Cayman Chemical

#### Mailing address

1180 E. Ellsworth Road  
Ann Arbor, MI  
48108 USA

#### Phone

(800) 364-9897  
(734) 971-3335

#### Fax

(734) 971-3640

#### E-Mail

custserv@caymanchem.com

#### Web

www.caymanchem.com

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery**.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees. Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our **Warranty and Limitation of Remedy** located on our **website and in our catalog**.

Copyright Cayman Chemical Company, 05/02/2011