

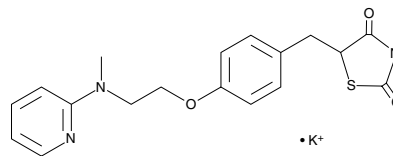
# Product Information



## Rosiglitazone (potassium salt)

Item No. 71742

**CAS Registry No.:** 316371-84-3  
**Formal Name:** 5-[[4-[2-(methyl-2-pyridinylamino)ethoxy]phenyl]methyl]-2,4-thiazolidinedione, monopotassium salt  
**MF:** C<sub>18</sub>H<sub>18</sub>N<sub>3</sub>O<sub>3</sub>S • K  
**FW:** 395.5  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 247 nm



### Laboratory Procedures

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

Rosiglitazone (potassium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the rosiglitazone (potassium salt) in an organic solvent purged with an inert gas. Rosiglitazone (potassium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of rosiglitazone (potassium salt) in these solvents is approximately 2 mg/ml in ethanol and 25 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. For maximum solubility in aqueous buffers, rosiglitazone (potassium salt) should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Rosiglitazone (potassium salt) has a solubility of approximately 500 µg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. To obtain a higher aqueous concentration rosiglitazone (potassium salt) can be directly dissolved in water at a concentration of 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Thiazolidinediones are a group of structurally related PPAR $\gamma$  agonists with antidiabetic actions *in vivo*.<sup>1,2</sup> Rosiglitazone 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 a luciferase-based PPAR $\gamma$  expression construct with an EC<sub>50</sub> of about 1.0 µM.<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. The potassium salt of rosiglitazone is a formulation designed to provide better aqueous solubility than the parent compound.

### 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 • Ciglitazone - Item No. 71730 • Rosiglitazone - Item No. 71740

**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.

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