

PRODUCT INFORMATION



PPAR γ Ligand Pack

Item No. 71000

Laboratory Procedures

For long term storage, we suggest that the PPAR γ Ligand Pack be stored as supplied at -20°C. It should be stable for at least one year. Each of the items in this kit are provided as crystalline solids and have a $\geq 98\%$ purity, with the exception of 15-deoxy- $\Delta^{12,14}$ -prostaglandin J₂ (15-deoxy- $\Delta^{12,14}$ -PGJ₂) which is a 10 mg/ml solution in methyl acetate with a purity of $\geq 98\%$ as a mixture of isomers. Please see the chart below for the amount included and solubility information for the items in this kit.

Description

The Cayman PPAR γ Ligand Pack contains a combination of frequently used ligands for the nuclear PPAR γ . Each kit contains Ciglitazone, the first characterized member of the thiazolidinedione (TZD) class that binds to the PPAR γ ligand-binding domain with an EC₅₀ value of 3.0 μ M.^{1,2} Rosiglitazone, a key reference TZD also called BRL 49653, its more potent structural homolog MCC-555, and PPAR γ -1-selective pioglitazone are other PPAR γ agonists provided. Also included is Troglitazone, another TZD; it was withdrawn from human therapeutic use due to hepatotoxicity.³ Also in this assortment is 15-deoxy- $\Delta^{12,14}$ -PGJ₂, a potent PPAR γ ligand derived from PGD₂. The actions of all of these compounds can be antagonized by the selective PPAR γ antagonist, GW 9662, which is also in the kit.⁴

Item No.	Component	Amount	Solubility
18570.1	15-deoxy- $\Delta^{12,14}$ -PGJ ₂	1 mg	>2.7 mg/ml in PBS (pH 7.2)
71730	Ciglitazone	5 mg	>0.4 mg/ml in DMSO:PBS (pH 7.2) (1:4)
70785	GW 9662	5 mg	>0.5 mg/ml in DMSO:PBS (pH 7.2) (1:1)
70735	MCC-555	1 mg	>1 mg/ml in DMSO:PBS (pH 7.2) (1:1)
71745	Pioglitazone	5 mg	>0.1 mg/ml in DMSO:PBS (pH 7.2) (1:1)
71740	Rosiglitazone	5 mg	>0.5 mg/ml in DMSO:PBS (pH 7.2) (1:3)
71750	Troglitazone	5 mg	>0.1 mg/ml in DMSO:PBS (pH 7.2) (1:6)

References

- Willson, T.M., Cobb, J.E., Cowan, D.J., *et al.* The structure-activity relationship between peroxisome proliferator-activated receptor γ agonism and the antihyperglycemic activity of thiazolidinediones. *J. Med. Chem.* **39**, 665-668 (1996).
- Sohda, T., Mizuno, K., Imaniya, E., *et al.* Studies on antidiabetic agents. II. Synthesis of 5-[4-(1-methyl-cyclohexylmethoxy)-benzyl]thiazolidine-2,4-dione (ADD-3878) and its derivatives. *Chem. Pharm. Bull.* **30**(10), 3580-3600 (1982).
- Kodera, Y., Takeyama, K., Murayama, A., *et al.* Ligand type-specific interactions of peroxisome proliferator-activated receptor γ with transcriptional coactivators. *J. Biol. Chem.* **275**, 33201-33204 (2000).
- Bendixen, A.C., Shevde, N.K., Dienger, K.M., *et al.* IL-4 inhibits osteoclast formation through a direct action on osteoclast precursors *via* peroxisome proliferator-activated receptor γ 1. *Proc. Natl. Acad. Sci. USA* **98**, 2443-2448 (2001).

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.

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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