

# PRODUCT INFORMATION



## PPAR $\gamma$ LBD (human, recombinant)

Item No. 10007941

### Overview and Properties

**Synonyms:** NR1C3, Nuclear Receptor Subfamily 1 Group C Member 3, Peroxisome Proliferator-activated Receptor  $\gamma$  Ligand-binding Domain, PPAR $\gamma$  Ligand-binding Domain

**Source:** Recombinant human N-terminal His-tagged PPAR $\gamma$  LBD expressed in *E. coli*

**Amino Acids:** 223-505

**Molecular Weight:** 36 kDa

**Storage:** -80°C (as supplied)

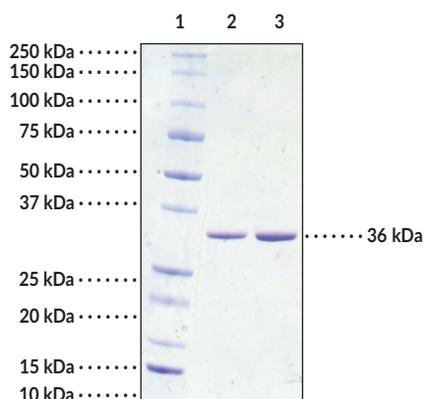
**Stability:**  $\geq 1$  year

**Purity:**  $\geq 90\%$  estimated by SDS-PAGE

**Supplied in:** 50 mM Tris, pH 8.0, 150 mM sodium chloride, 1 mM DTT, and 20% glycerol

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

### Image



Lane 1: MW Markers  
Lane 2: PPAR $\gamma$  LBD (2  $\mu$ g)  
Lane 3: PPAR $\gamma$  LBD (4  $\mu$ g)

SDS-PAGE Analysis of PPAR $\gamma$  LBD.

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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## Description

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PPAR $\gamma$  is a ligand-activated transcription factor and member of the nuclear hormone receptor superfamily.<sup>1</sup> It is composed of an N-terminal AF1 domain responsible for ligand-independent transactivation, a DNA-binding domain (DBD), a hinge region, and a C-terminal ligand-binding domain (LBD) and AF2 domain.<sup>2</sup> It is expressed as two main isoforms, PPAR $\gamma$ 1 and PPAR $\gamma$ 2, and localizes to the nucleus. PPAR $\gamma$ 1 is expressed in adipose tissue, liver, colon, heart, skeletal muscle, and various immune cells, and PPAR $\gamma$ 2 is expressed primarily in adipose tissue but also in urothelial cells and certain populations of T cells.<sup>3</sup> PPAR $\gamma$  has a large ligand-binding pocket that can be bound by a variety of ligands, including eicosanoids, thyroid and steroid hormones, and vitamins, as well as xenobiotics.<sup>1-3</sup> When activated, PPAR $\gamma$  regulates gene expression to increase differentiation in white and brown adipose tissue and to reduce cytokine production in macrophages and chemokine production in T cells.<sup>3</sup> It also regulates the expression of genes to increase lipid transport and metabolism in adipocytes and dendritic cells. PPAR $\gamma$  plays a role in diabetes and a more complex role in a variety of other diseases, including cancer, cardiovascular disease, and allergic disease.<sup>3-6</sup> Formulations containing PPAR $\gamma$  agonists have been used in the treatment of type 2 diabetes.

## References

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1. Rosen, E.D. and Spiegelman, B.M. PPAR $\gamma$ : A nuclear regulator of metabolism differentiation, and cell growth. *J. Biol. Chem.* **276**(1), 37731-37734 (2001).
2. Sharma, V. and Patial, V. Peroxisome proliferator-activated receptor gamma and its natural agonists in the treatment of kidney diseases. *Front. Pharmacol.* **13**, 991059 (2022).
3. Hernandez-Quiles, M., Broekema, M.F., and Kalkhoven, E. PPARgamma in metabolism, immunity, and cancer: Unified and diverse mechanisms of action. *Front. Endocrinol. (Lausanne)* **12**, 624112 (2021).
4. Cataldi, S., Costa, V., Ciccodicola, A., et al. PPAR $\gamma$  and diabetes: Beyond the genome and towards personalized medicine. *Curr. Diab. Rep.* **21**(6), 18 (2021).
5. Chandra, M., Miriyala, S., and Panchatcharam, M. PPAR $\gamma$  and its role in cardiovascular diseases. *PPAR Res.* **6404638** (2017).
6. Stark, J.M., Coquet, J.M., and Tibbitt, C.A. The role of PPAR- $\gamma$  in allergic disease. *Curr. Allergy Asthma Rep.* **21**(11), 45 (2021).

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