

# PPAR gamma Polyclonal ANTIBODY

Catalog Number: 16643-1-AP

Featured Product

71 Publications

## Basic Information

**Catalog Number:**  
16643-1-AP

**Size:**  
49 µg/150 µl

**Source:**  
Rabbit

**Isotype:**  
IgG

**Purification Method:**  
Antigen affinity purification

**Immunogen Catalog Number:**  
AG10005

**GenBank Accession Number:**  
BC006811

**GeneID (NCBI):**  
5468

**Full Name:**  
peroxisome proliferator-activated receptor  
gamma

**Calculated MW:**  
58 kDa

**Observed MW:**  
50-60 kDa

**Recommended Dilutions:**

WB 1:500-1:2000

IP 0.5-4.0 µg for IP and 1:500-1:1000 for WB

IHC 1:50-1:500

IF 1:50-1:500

## Applications

**Tested Applications:**  
IF, IHC, IP, WB, ELISA

**Cited Applications:**  
CHIP, CoIP, IF, IHC, WB

**Species Specificity:**  
human, mouse, rat

**Cited Species:**  
human, mouse, rat

**Note-IHC: suggested antigen retrieval with  
TE buffer pH 9.0; (\*) Alternatively, antigen  
retrieval may be performed with citrate  
buffer pH 6.0**

**Positive Controls:**

**WB :** U-937 cells; HL-60 cells, human heart tissue,  
K-562 cells, MCF-7 cells, mouse heart tissue

**IP :** HL-60 cells;

**IHC :** human prostate cancer tissue; human  
placenta tissue

**IF :** 3T3-L1 cells;

## Background Information

Peroxisome Proliferator-Activated Receptors (PPARs) are ligand-activated intracellular transcription factors, members of the nuclear hormone receptor superfamily (NR), that includes estrogen, thyroid hormone receptors, retinoic acid, Vitamin D3 as well as retinoid X receptors (RXRs). The PPAR subfamily consists of three subtypes encoded by distinct genes denoted PPAR $\alpha$  (NR1C1), PPAR $\beta/\delta$  (NR1C2) and PPAR $\gamma$  (NR1C3), which are activated by selective ligands. PPAR $\gamma$ , also named as PPAR $\gamma$ , contains one nuclear receptor DNA-binding domain and is a receptor that binds peroxisome proliferators such as hypolipidemic drugs and fatty acids. It plays an important role in the regulation of lipid homeostasis, adipogenesis, insulin resistance, and development of various organs. Defects in PPAR $\gamma$  are the cause of familial partial lipodystrophy type 3 (FPLD3) and may be associated with susceptibility to obesity. Defects in PPAR $\gamma$  can lead to type 2 insulin-resistant diabetes and hypertension. PPAR $\gamma$  mutations may be associated with colon cancer. Genetic variations in PPAR $\gamma$  are associated with susceptibility to glioma type 1 (GLM1). PPAR $\gamma$  has two isoforms with molecular weight 57 kDa and 54 kDa (PMD: 9831621), but modified PPAR $\gamma$  is about 67 kDa (PMD: 16809887). PPAR $\gamma$ 2 is a splice variant and has an additional 30 amino acids at the N-terminus (PMD: 15689403). Experimental data indicate that a 45 kDa protein displaying three different sequences immunologically related to the nuclear receptor PPAR $\gamma$ 2 is located in mitochondria (mt-PPAR). However, the molecular weight of this protein is clearly less when compared to that of PPAR $\gamma$ 2 (57 kDa) (PMD: 10922459). PPAR $\gamma$  has been reported to be localized mainly (but not always) in the nucleus. PPAR $\gamma$  can also be detected in the cytoplasm and was reported to possess extra-nuclear/non-genomic actions (PMD: 17611413; 19432669; 14681322).

## Notable Publications

Author	Pubmed ID	Journal	Application
Qipeng Fan	29163813	Oncotarget	WB
Xchuan Zhai	30238111	Food Funct	WB
Yupeng Hu	27649624	Chem Biol Interact	WB

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

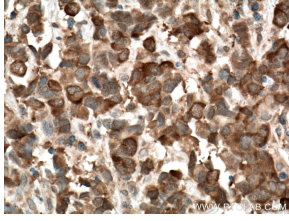
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

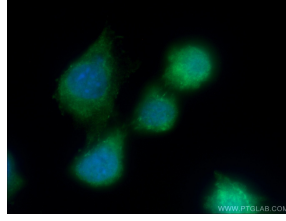
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

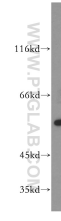
## Selected Validation Data



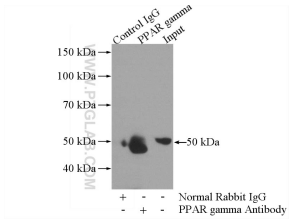
Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 16643-1-AP (PPAR gamma antibody) at dilution of 1:200 (under 40x lens) heat mediated antigen retrieved with Tris-EDTA buffer (pH9).



Immunofluorescent analysis of (-20°C Ethanol) fixed 3T3-L1 cells using 16643-1-AP (PPAR gamma antibody) at dilution of 1:50 and Alexa Fluor 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)



U-937 cells were subjected to SDS PAGE followed by western blot with 16643-1-AP (PPAR gamma antibody) at dilution of 1:800 incubated at room temperature for 1.5 hours



IP Result of anti-PPAR gamma (IP:16643-1-AP; 3ug; Detection:16643-1-AP 1:700) with HL-60 cells lysate 4000ug.