

## PPAR Gamma Polyclonal antibody

Catalog Number: 16643-1-AP

Featured Product

402 Publications

## Basic Information

## Catalog Number:

16643-1-AP

## Size:

500 µg/ml

## Source:

Rabbit

## Isotype:

IgG

## Immunogen Catalog Number:

AG10005

## GenBank Accession Number:

BC006811

## GeneID (NCBI):

5468

## UNIPROT ID:

P37231

## Full Name:

peroxisome proliferator-activated  
receptor gamma

## Calculated MW:

58 kDa

## Observed MW:

50-60 kDa

## Purification Method:

Antigen affinity purification

## Recommended Dilutions:

WB 1:1000-1:5000

IP 0.5-4.0 µg for 1.0-3.0 mg of total  
protein lysate

IHC 1:200-1:800

IF 1:50-1:500

## Applications

## Tested Applications:

WB, IP, IHC, IF, P, FC, ELISA

## Cited Applications:

WB, IP, IF, IHC, CoIP, CHIP

## Species Specificity:

human, mouse, rat

## Cited Species:

human, rat, sheep, mouse, hamster, pig, duck, bovine

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

IP : HL-60 cells,

IHC : human prostate cancer tissue, human colon  
cancer tissue, human breast cancer tissue, human  
placenta tissue, human thyroid cancer tissue

IF : rat liver tissue,

## 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 PPARG, 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, ins resistance, and development of various organs. Defects in PPARG are the cause of familial partial lipodystrophy type 3 (FPLD3) and may be associated with susceptibility to obesity. Defects in PPARG can lead to type 2 ins-resistant diabetes and hypertension. PPARG mutations may be associated with colon cancer. Genetic variations in PPARG are associated with susceptibility to glioma type 1 (GLM1). PPARG has two isoforms with molecular weight 57 kDa and 54 kDa (PMID: 9831621), but modified PPARG is about 67 kDa (PMID: 16809887). PPARG2 is a splice variant and has an additional 30 amino acids at the N-terminus (PMID: 15689403). Experimental data indicate that a 45 kDa protein displaying three different sequences immunologically related to the nuclear receptor PPARG2 is located in mitochondria (mt-PPAR). However, the molecular weight of this protein is clearly less when compared to that of PPARG2 (57 kDa) (PMID: 10922459). PPARG has been reported to be localized mainly (but not always) in the nucleus. PPARG can also be detected in the cytoplasm and was reported to possess extra-nuclear/non-genomic actions (PMID: 17611413; 19432669; 14681322).

## Notable Publications

Author	Pubmed ID	Journal	Application
Qipeng Fan	29163813	Oncotarget	WB
Ser Yue Loo	34580286	Cell Death Discov	WB, IP
Yunjiao Wang	31557405	J Cell Mol Med	WB

## Storage

## Storage:

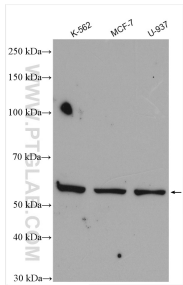
Store at -20°C. Stable for one year after shipment.

## Storage Buffer:

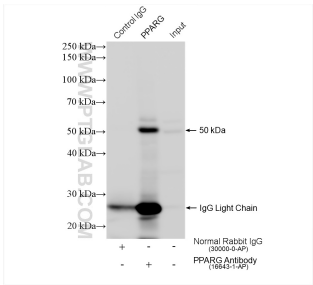
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

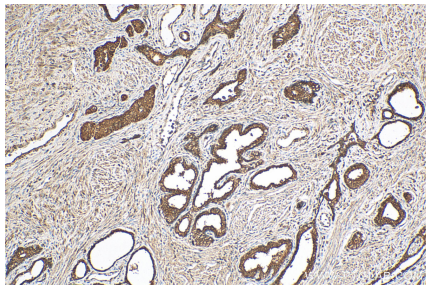
Selected Validation Data



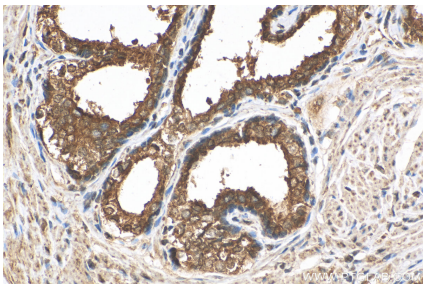
Various lysates were subjected to SDS PAGE followed by western blot with 16643-1-AP (PPAR Gamma antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



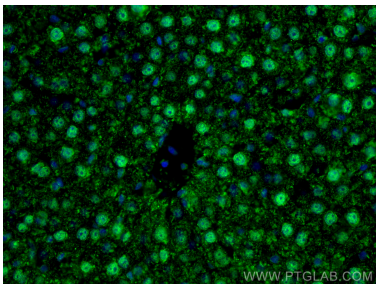
IP result of anti-PPAR Gamma (IP:16643-1-AP, 4ug; Detection:16643-1-AP 1:2000) with HL-60 cells lysate 2440 ug.



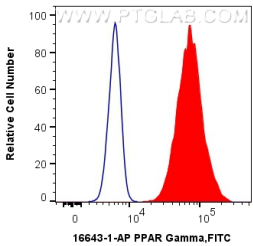
Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 16643-1-AP (PPAR Gamma antibody) at dilution of 1:400 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 16643-1-AP (PPAR Gamma antibody) at dilution of 1:400 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed rat liver tissue using PPAR Gamma antibody (16643-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



1X10<sup>6</sup> HeLa cells were intracellularly stained with 0.4 ug Anti-Human PPAR Gamma (16643-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).