For Research Use Only

PPAR Gamma Polyclonal antibody

Catalog Number:16643-1-AP Featured Product 395 Publications

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Basic Information

Catalog Number:
16643-1-AP

Size:
150ul , Concentration: 650 μg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

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

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:1000-1:5000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:200-1:800
IF 1:50-1:500

Applications

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

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

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 PPARα (NR1C1), PPARβ/δ (NR1C2) and PPARγ (NR1C3), which are activated by selective ligands. PPARγ, 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

***** 20ul sizes contain 0.1% BSA**

For technical support and original validation data for this product please contact:
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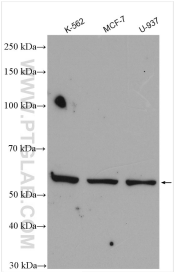
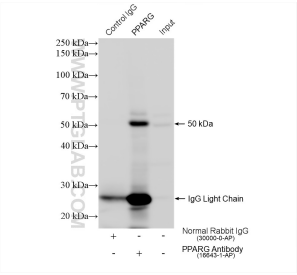
E: proteintech@ptglab.com
W: ptglab.com

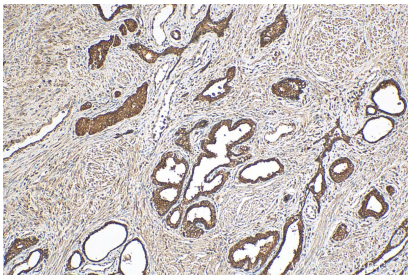
Selected Validation Data



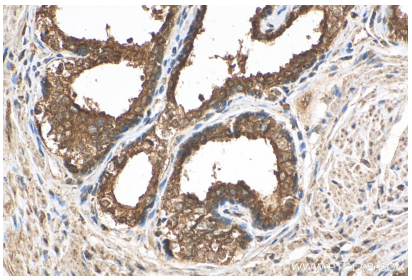
Various lysates were subjected to SDS PAGE followed by western blot with 16643-1-AP (PPAR Gamma antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



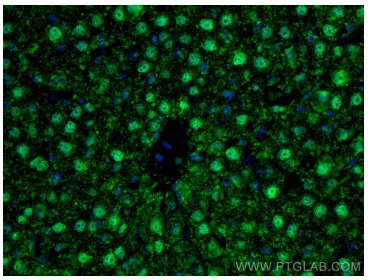
IP result of anti-PPAR Gamma(IP:16643-1-AP, 4ug; Detection:16643-1-AP 1:2000) with HL-60 cells lysate 2440 ug.



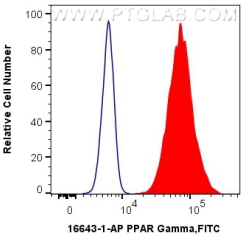
Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 16643-1-AP (PPAR Gamma antibody) at dilution of 1:400 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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).



1X10^6 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).