Basic Information

Catalog Number: 16643-1-AP
Size: 150μl, Concentration: 650μg/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 μg for IP and 1:500-1:1000 for WB
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, human heart tissue, HL-60 cells, mouse 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, insulin resistance, and development of various organs. Defects in PPARγ are the cause of familial partial lipodystrophy type 3 (FPLD3) and may be associated with susceptibility to obesity. Defects in PPARγ can lead to type 2 insulin-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

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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
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

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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, 3ug; Detection:16643-1-AP 1:700) with HL-60 cells lysate 4000ug.

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).

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).