**For Research Use Only**

**PPAR gamma Polyclonal ANTIBODY**

Catalog Number: 16643-1-AP

**Basic Information**

- **Catalog Number:** 16643-1-AP
- **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: 1:10-1:100

**Applications**

- **Tested Applications:** IF, IHC, IP, WB, ELISA
- **Cited Applications:** CHIP, CoIP, IF, IHC, WB
- **Species Specificity:** Human, mouse, rat
- **Cited Species:** Fish, human, mouse, rat

**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 can lead to type 2 insulin-resistant diabetes and hypertension. PPARγ mutations may be associated with colon cancer. Genetic variations in PPARγ are associated with susceptibility to non-malignant diseases. Experimental data indicate that a 45 kDa protein displaying three different sequences immunologically related to the nuclear receptor PPARG is found in mitochondria (mt-PPARG). 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**

- Store at -20°C. Stable for one year after shipment.
- Store 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.
Immunohistochemistry 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 pH 9.

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.

Immunofluorescent analysis of HepG2 cells using 16643-1-AP (PPAR gamma antibody) at dilution of 1:25 and Rhodamine-conjugated goat anti-Rabbit IgG.

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