For Research Use Only

PPAR Gamma Monoclonal antibody

Catalog Number:66936-1-Ig 15 Publications

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Basic Information

Catalog Number:
66936-1-Ig

Concentration:
2000 ug/ml

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG16657

GenBank Accession Number:
BC006811

GeneID (NCBI):
5468

UNIPROT ID:
P37231

Full Name:
peroxisome proliferator-activated receptor gamma

Calculated MW:
58 kDa

Observed MW:
50 kDa

Purification Method:
Protein G purification

CloneNo.:
1F4A2

Recommended Dilutions:
WB 1:5000-1:50000
IHC 1:250-1:1000

Applications

Tested Applications:
WB, IHC, FC (Intra), ELISA

Cited Applications:
WB, IHC, IF, ChIP

Species Specificity:
human, mouse

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 : HepG2 cells, MCF-7 cells, mouse adipose tissue, A431 cells, A549 cells, PC-3 cells, K-562 cells, HL-60 cells

IHC : human prostate cancer tissue, human colon cancer tissue

FC (Intra) : HeLa 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 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).

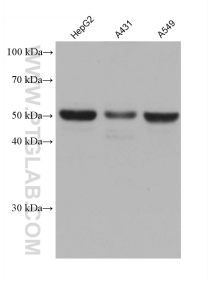
Notable Publications

Author	Pubmed ID	Journal	Application
Shan-Shan Zhang	36235633	Nutrients	WB
Piao Luo	35646542	Acta Pharm Sin B	WB
Yang Song	30967566	Sci Rep	IHC,IF

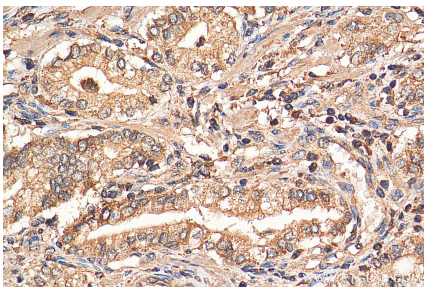
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

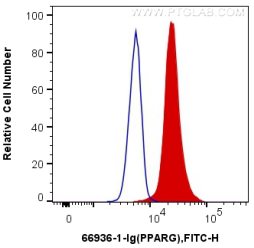
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 66936-1-Ig (PPARG antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 66936-1-Ig (PPAR Gamma antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1X10^6 HeLa cells were intracellularly stained with 0.4 ug Anti-Human PPAR Gamma (66936-1-Ig, Clone:1F4A2) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse 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).