10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PPARG Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20705a

Product Information

Application	WB, E
Primary Accession	P37231
Reactivity	Human, Mouse
Predicted	Rat, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB43831
Calculated MW	57620

Additional Information

Gene ID	5468
Other Names	Peroxisome proliferator-activated receptor gamma, PPAR-gamma, Nuclear receptor subfamily 1 group C member 3, PPARG, NR1C3
Target/Specificity	This PPARG antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 2-35 amino acids from the N-terminal region of human PPARG.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PPARG Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PPARG
Synonyms	NR1C3
Function	Ligand-activated transcription factor that forms obligate heterodimers with the retinoic acid receptor and acts as a key regulator of biological processes,

	such as adipocyte differentiation, lipid metabolism, glucose homeostasis and beta-oxidation of fatty acids (PubMed:16150867, PubMed:20829347, PubMed:23525231, PubMed:8702406, PubMed:8706692, PubMed:9065481). Activated by lipid ligands: binds peroxisome proliferators, such as hypolipidemic drugs, and fatty acids, such as prostaglandin J2 metabolites (PubMed:16150867, PubMed:20829347, PubMed:23525231, PubMed:8702406, PubMed:8706692, PubMed:9065481). Ligand-binding results in a conformational change in the receptor, promoting dissociation of repressors and recruitment of coactivators, and subsequent activation of target gene expression (PubMed:16150867, PubMed:20829347, PubMed:23525231, PubMed:8702406, PubMed:8706692, PubMed:9065481). Specifically binds to DNA specific PPAR response elements (PPRE) and modulates the transcription of its target genes, such as acyl-CoA oxidase (By similarity). Acts as a critical regulator of gut homeostasis by suppressing NF-kappa-B-mediated pro-inflammatory responses (PubMed:20829347). Plays a role in the regulation of cardiovascular circadian rhythms by regulating the transcription of BMAL1 in the blood vessels (By similarity).
Cellular Location	Nucleus. Cytoplasm Note=Redistributed from the nucleus to the cytosol through a MAP2K1/MEK1-dependent manner (PubMed:17101779). NOCT enhances its nuclear translocation (By similarity). {ECO:0000250|UniProtKB:P37238, ECO:0000269|PubMed:17101779}
Tissue Location	Highest expression in adipose tissue. Lower in skeletal muscle, spleen, heart and liver. Also detectable in placenta, lung and ovary.

Background

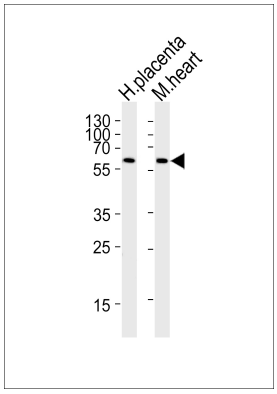
Nuclear receptor that binds peroxisome proliferators such as hypolipidemic drugs and fatty acids. Once activated by a ligand, the nuclear receptor binds to DNA specific PPAR response elements (PPRE) and modulates the transcription of its target genes, such as acyl-CoA oxidase. It therefore controls the peroxisomal beta-oxidation pathway of fatty acids. Key regulator of adipocyte differentiation and glucose homeostasis. ARF6 acts as a key regulator of the tissue-specific adipocyte P2 (aP2) enhancer. Acts as a critical regulator of gut homeostasis by suppressing NF-kappa-B-mediated proinflammatory responses.

References

Mukherjee R.,et al.J. Biol. Chem. 272:8071-8076(1997).
Elbrecht A.,et al.Biochem. Biophys. Res. Commun. 224:431-437(1996).
Yanase T.,et al.Biochem. Biophys. Res. Commun. 233:320-324(1997).
Greene M.E.,et al.Gene Expr. 4:281-299(1995).
Greene M.E.,et al.Submitted (DEC-2001) to the EMBL/GenBank/DDBJ databases.

Images

Western blot analysis of lysates from human placenta and mouse heart tissue lysate(from left to right), using PPARG Antibody (N-term)(Cat. #AP20705a). AP20705a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



Citations

- Pioglitazone increases VEGFR3 expression and promotes activation of M2 macrophages via the peroxisome proliferator activated receptor γ.
- Qishen Yiqi Dripping Pill Protects Diabetic Nephropathy by Inhibiting the PI3K-AKT Signaling Pathways in Rats

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.