

Datasheet for 600-401-419**PPAR gamma 1 + 2 Antibody****Overview**

Description:	Anti-PPAR gamma 1 and 2 (internal) (RABBIT) Antibody - 600-401-419
Item No.:	600-401-419
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Human, Mouse, Rat, Boar, Dog, Duck, Guinea Pig, Hamster, Macaque Monkey, Mink, Orangutan, Rabbit, Squirrel
Host Species:	Rabbit

Product Details

Background:	Since their discovery in the early 1990's, the peroxisome proliferator activated receptors (PPARs) have attracted significant attention. This is primarily because PPARs serve as receptors for two very important classes of drugs: the hypolipidemic fibrates and the insulin sensitizing thiazolidinediones. Peroxisome proliferators are non-genotoxic carcinogens that are purported to exert their effect on cells through their interaction with members of the nuclear hormone receptor family termed PPARs. Nuclear hormone receptors are ligand-dependent intracellular proteins that stimulate transcription of specific genes by binding to specific DNA sequences following activation by the appropriate ligand. Upon binding fatty acids or hypolipidemic drugs, PPARs form heterodimers with retinoid X receptors (RXRs) and these heterodimers regulate the expression of target genes. There are 3 known subtypes of PPARs: PPAR-alpha, PPAR-delta and PPAR-gamma. Mostly target genes are involved in the catabolism of fatty acids. Conversely, PPAR-gamma is activated by peroxisome proliferators such as prostaglandins, leukotrienes and anti-diabetic thiazolidinediones and affects the expression of genes involved in the storage of the fatty acids. PPAR-gamma may also be involved in adipocyte differentiation. It has also been shown that PPARs can induce transcription of acyl coenzyme A oxidase and cytochrome P450 through interaction with specific response elements.
Synonyms:	rabbit anti-PPAR gamma 1 and 2 antibody, Peroxisome proliferator-activated receptor gamma, Nuclear receptor subfamily 1 group C member 3, NR1C3, PPARG, PPAR gamma, PPARG1 antibody, PPARG2 antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	PPARG
Reactivity:	Human, Mouse, Rat, Boar, Dog, Duck, Guinea Pig, Hamster, Macaque Monkey, Mink, Orangutan, Rabbit, Squirrel
Immunogen Type:	Conjugated Peptide
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near amino acids 250-300 of human PPAR gamma isoform 1.
Purity/Specificity:	This affinity purified antibody is directed against human PPAR gamma protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest broad reactivity with this protein from several sources. Expect reactivity against human (g1 and g2), mouse (g1 and g2), rat, squirrel, orangutan, duck (g1), macaque (g1-g7), boar (g1a-1d), mink, guinea pig, rabbit (g1 and g3), dog and hamster sources based on 100% homology for the immunogen sequence. Cross reactivity with PPAR gamma homologues from other sources has not been determined. No reactivity is expected against other subtypes of PPAR.
Relevant Links:	• UniProtKB - P37231 • NCBI - 20336229 • GeneID - 5468

Application Details

Tested Applications:	ELISA, WB
Application Note:	This affinity-purified antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:8,000 - 1:32,000
WB:	User optimized

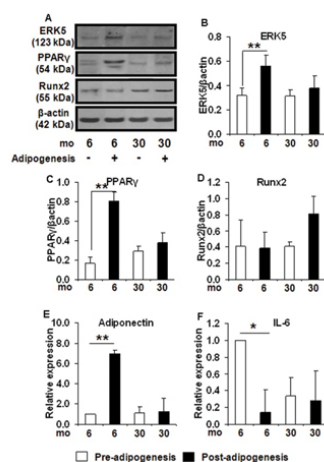
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.1 mg/mL by UV absorbance at 280 nm

Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None
Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Shipping & Handling

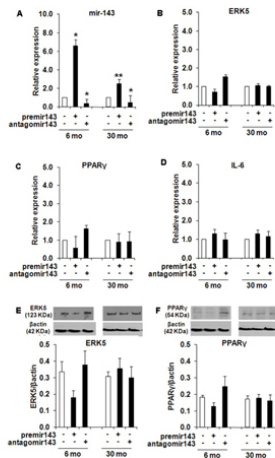
Images



Western Blot

Impaired protein expression of miR-143 target genes with aging in preadipocytes before and after adipogenic differentiation.

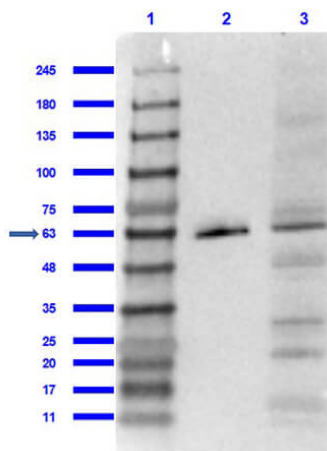
A decreased adipogenic differentiation potential of preadipocytes from old rats (30 mo) compared to 6 mo ($n = 8/\text{group}$) rats was due to changes in miR-143 levels. Western blot was used to analyze the protein levels of miR-143 target genes, ERK5, 5A and B; PPARγ, 5A and C; or osteogenic marker, Runx2, 5A and D in the young and old rats preadipocytes before and after adipogenic differentiation. RT-qPCR was also used to measure adipogenic markers, adiponectin, 5E and IL-6, 5F. The data was expressed as ratio or fold of relative expression $\pm$ SEM (Standard Error of Mean). *: $p < 0.05$; **: $p < 0.01$. Fig 5. PMID: 23516615



Western Blot

Gain and loss of function assays to validate the role of miR-143 in young (6 mo) and old (30 mo) rat SVF cells, pre-adipogenesis.

The gain or knockdown of miR-143 by premir or antagomir-143 was performed by transient transfection of both young and old rat (n=8) preadipocytes, pre-adipogenesis. The transfection efficiency and target gene levels were confirmed by RT-qPCR and Western blot analysis. miR-143, 7A; ERK5 mRNA, 7B; PPARγ mRNA, 7C; IL-6 mRNA, 7D; ERK5 protein, 7E; and PPARγ protein, 7F. The real time PCR data was expressed as fold of relative expression ± SEM (Standard Error of Mean). *: p<0.05; **: p<0.01. Fig 7. PMID: 23516615



Western Blot

Western Blot of Rabbit Anti-PPAR gamma 1&2 Antibody. Lane 1: Opal Prestained Molecular Weight Marker (p/n MB-210-0500). Lane 2: rec PPAR protein [0.05μg]. Lane 3: rec PPAR protein/HeLa Whole Cell Lysate [0.05μg/10μg]. Primary Antibody: Anti-PPAR gamma 1&2 at 1.0μg/mL overnight at 2-8°C. Secondary Antibody: Goat Anti-Rabbit IgG HRP (p/n 611-103-122) at 1:70,000 for 30mins at RT. Block: BlockOut Buffer (p/n MB-073). Predicted MW: rec. protein (54.5kDa), Isoform 1 (54.6kDa), Isoform 2 (57.6kDa). Observed MW: ~63kDa.

References

- Fei J et al. MicroRNA regulation of adipose derived stem cells in aging rats. *PLoS One* (2013)
- Moreau A et al. A novel pregnane X receptor and S14-mediated lipogenic pathway in human hepatocyte. *Hepatology*. (2009)
- Brueedigam C et al. Evidence for multiple peroxisome proliferator-activated receptor gamma transcripts in bone: fine-tuning by hormonal regulation and mRNA stability. *FEBS Lett.* (2008)

Disclaimer

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