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Datasheet for 600-401-420

PPAR delta Antibody

Overview

Description:	Anti-PPAR delta (N terminal specific) (RABBIT) Antibody - 600-401-420
Item No.:	600-401-420
Size:	100 µg
Applications:	ELISA, IHC, WB
Reactivity:	Human, Mouse
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 delta antibody, PPARD, PPARB, NR1C2, PPAR-delta, NUCI, Nuclear hormone receptor 1 antibody, Nuclear receptor subfamily 1 group C member 2 antibody, Nuclear hormone receptor 1, NUC-1, Peroxisome proliferative activated receptor delta antibody, Peroxisome proliferator-activated receptor beta, PPAR-beta
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Ppard
Reactivity:	Human, Mouse
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-PPAR delta antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids near the amino terminus of mouse PPAR delta.
Purity/Specificity:	This affinity purified antibody is directed against mouse PPAR delta protein. The product was affinity purified from monospecific antiserum by immunoaffinity chromatography. A BLAST analysis was used to suggest reactivity with this protein from mouse and rat sources based on 100% homology for the immunogen sequence. Cross-reactivity with PPAR delta protein from human, chimpanzee and rabbit may occur as this sequence shows 85% homology with the protein from these sources. Cross-reactivity with PPAR delta homologues from other sources has not been determined. No reactivity is expected against other subtypes of PPAR.
Relevant Links:	• NCBI - 548577 • UniProtKB - P35396 • GeneID - 19015

Application Details

Tested Applications:	ELISA, IHC, WB
Application Note:	This affinity purified antibody has been tested for use in ELISA, IHC, and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a single band approximately 43 kDa in size corresponding to PPAR delta by western blot in the appropriate tissue or cell lysate.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:30,000 - 1:70,000
IHC:	1:500
WB:	1:500 - 1:5,000

Formulation

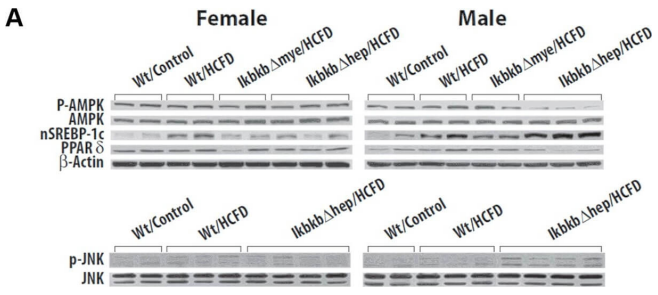
Physical State:	Liquid (sterile filtered)

Concentration:	1.0 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

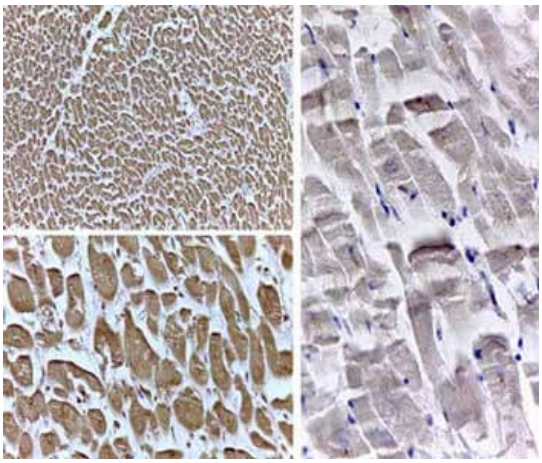
Shipping & Handling

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.

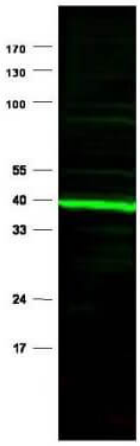
Images



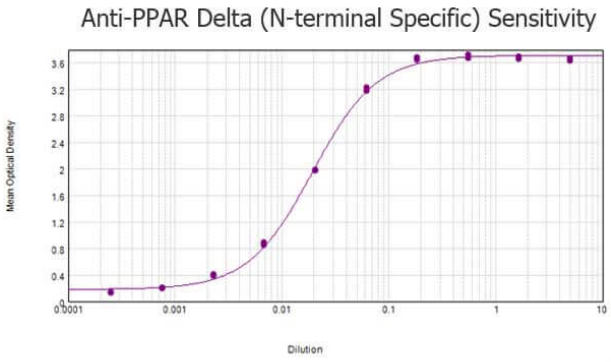
Western Blot
Upregulation of lipogenic genes and down-regulation of lipolytic genes associated with NASH induction and aggravation.Wild type (Wt), myeloid IKKβ deficient (IkbkbΔmye), or hepatocyte IKKβ deficient (IkbkbΔhep) mice in both genders, were fed regular chow (Control) or high cholesterol and saturated fat diet (HCFD) from 2.5 months of age for 20 weeks. (A) Immunoblotting of whole liver lysate and (B) densitometric analysis of pAMPK/AMPK, nSREBP-1c, PPARδ, pJNK-1/JNK-1, and pJNK-2/JNK-2. (C) Plasma adiponectin levels measured by ELISA. (D) Real-time PCR results of PPAR α, δ, and γ genes. *p<0.05, **p<0.01, ***p<0.001 compared to Control diet within gender and within genotype. †p<0.05, ††p<0.01 compared to other genotype within gender and within diet. Figure provided by CiteAb. Source: PLoS One, PMID: 28797077.



Immunohistochemistry
Immunohistochemistry of Rabbit Anti-PPAR delta (N terminal specific). Antigen Retrieval: HIER pH 6.2. [Right] - Neg Ctrl: Normal rabbit IgG on heart striated muscle, pH6.2 (40X). [Left Top - low mag, Left Bottom - 20X] -Staining: Diffuse cytoplasmatic positivity for PPAR delta in human myocardiocitys at 1:500.



Western Blot
Affinity Purified Rabbit Anti-PPAR delta is shown to detect a predominant band at ~ 40kDa corresponding to PPAR delta present in mouse heart whole cell lysates (p/n W10-000-T014). Preincubation of the antibody with the immunizing peptide completely blocks reactivity with this band (data not shown). Approximately 30µg of lysate was loaded per lane for SDS-PAGE. Detection occurred using a 1:750 dilution of primary antibody diluted in 5% BLOTTO (p/n B501-0500) in PBS overnight at 4° C followed reaction with a 1:10,000 dilution of IRDye® 800 conjugated Gt-a-Rabbit IgG (H&L) (p/n 611-132-122) for 45 min at room temperature (800 nm channel, green). IRDye® 800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.



ELISA
ELISA results of purified Rabbit anti-PPAR Delta (N-terminal specific) Antibody tested against BSA-conjugated peptide of immunizing peptide. Each well was coated in duplicate with 0.1µg of conjugate. The starting dilution of antibody was 5µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using 3% fish gel, Goat anti-Rabbit IgG Antibody Peroxidase Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Ms Rt & Sh Serum Proteins) (p/n 611-103-122) and TMB ELISA Peroxidase Substrate (p/n TMBE-1000).

References

- Matsushita et al. Gender difference in NASH susceptibility: Roles of hepatocyte Ikkβ and Sult1e1. *PLOS One* (2017)

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