Data Sheet (Cat.No.TMAB-01565)

Anti-PPAR alpha/PPARA Polyclonal Antibody 2

Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat (predicted:Chicken,Pig,Cow,Horse,Rabbit)
Molecular Weight:	Theoretical: 51 kDa. Actual: 51 kDa.
Purification:	Protein A purified

Applications

Verified Activity:	1. Sample: Lane1: Heart (Mouse) Lysate at 30 µg Lane2: Liver (Mouse) Cell Lysate at 30 µg Primary: Anti-PPAR alpha (TMAB-01565) at 1:300 dilution; Secondary: HRP conjugated Goat-Anti-rabbit Igg (secondary antibody) at 1: 5000dilution; Predicted band size: 51 kDa Observed band size: 51 kDa 2. Rat splenocytes stained with Anti-PPAR alpha Polyclonal Antibody, PE-CY5 Conjugated (TMAB-01565-PE-Cy5) at 1:50. 3. Sample: Heart (Mouse) Lysate at 40 µg Primary: Anti-PPAP alpha (TMAB-01565) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/10000 dilution Predicted band size: 51 kDa Observed band size: 51 kDa 4. Blank control: HepG2. Primary Antibody (green line): Rabbit Anti-PPAR alpha antibody (TMAB-01565) Dilution: 1 µg/10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG. Secondary Antibody: Goat anti-rabbit IgG-AF647 Dilution: 1 µg/test. Protocol The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at-20°C. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. 5. Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (PPAR alpha) Polyclonal Antibody, Unconjugated (TMAB-01565) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructionsand DAB staining. 6. Blank control: Jurkat. Primary Antibody (green line): Rabbit Anti-PPAR alpha antibody (TMAB-01565) Dilution: 1 µg/10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG. Secondary Antibody: Goat anti-rabbit IgG-FITC Dilution: 1 µg/test.

Protocol

The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at-20°C. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature.

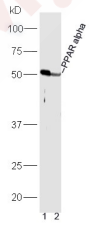
7. Sample: Heart (Mouse) Lysate at 40 µg Heart (Rat) Lysate at 40 µg Liver (Mouse) Lysate at 40 µg Urinary bladder (Mouse) Lysate at 40 µg Kidney (Mouse) Lysate at 40 µg

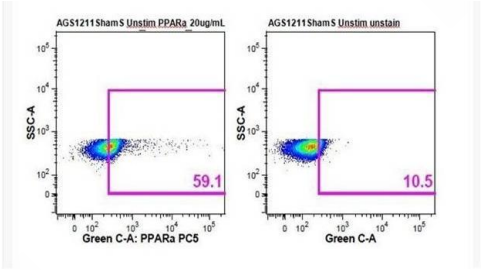
Primary: Anti-PPAR alpha (TMAB-01565) at 1/1000 dilution

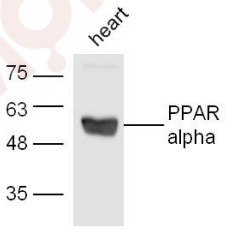
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

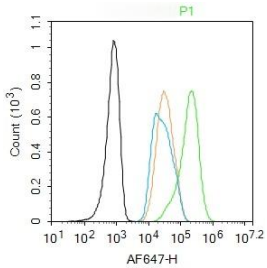
Predicted band size: 52/19 kDa

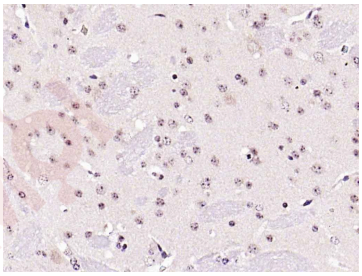
Observed band size: 52 kDa

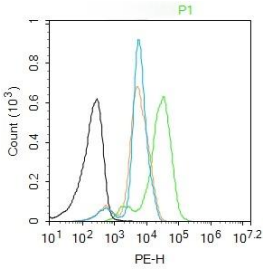


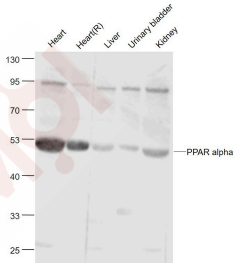












Application:	FCM,IF,IHC-Fr,IHC-P,WB
Recommended	WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500; FCM: 1μg /test

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human PPAR alpha
Antigen Species:	Human
Gene ID:	5465
Uniprot ID:	Q07869
Synonyms:	peroxisome proliferator-activated receptor α;Nr1c1;4933429D07Rik;Ppar;PPARalpha; AW742785;PPARα;PPAR-alpha;peroxisome proliferator-activated receptor alpha;PPAR-α
Biology Area:	Metabolism of lipids and lipoproteins,Response to hypoxia,Nuclear hormone receptors, Metabolism,Zinc Finger,Fatty acids,Lipid metabolism,Mitochondrial transcription,Hypoxia, Mitochondrial Biogenesis,Fatty acid oxidation,Obesity

Research Background

Peroxisome proliferators are nongenotoxic carcinogens which are purported to exert their effect on cells through their interaction with members of the nuclear hormone receptor family, termed Peroxisome Proliferator Activated Receptors (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. Studies indicate that PPARs are activated by peroxisome proliferators such as clofibric acid, nafenopin, and WY-14,643, as well as by some fatty acids. It has also been shown that PPARs can induce transcription of acyl coenzyme A oxidase and cytochrome P450 A6 (CYP450 A6) through interaction with specific response elements. PPAR alpha is activated by free fatty acids including linoleic, arachidonic, and oleic acids. Induction of peroxisomes by this mechanism leads to a reduction in blood triglyceride levels. PPAR alpha is expressed mainly in skeletal muscle, heart, liver, and kidney and is thought to regulate many genes involved in the beta-oxidation of fatty acids. Activation of rat liver PPAR alpha has been shown to suppress hepatocyte apoptosis. PPAR alpha, like several other nuclear hormone receptors, heterodimerizes with retinoic X receptor (RXR) alpha to form a transcriptionally competent complex.

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