Data Sheet (Cat.No.TMAB-01564)

Anti-PPAR alpha/PPARA Polyclonal Antibody

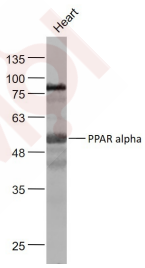
Product Details

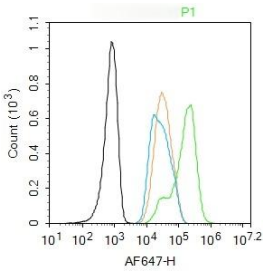
Ig Type:	IgG
Reactivity:	Human,Mouse (predicted:Rat,Chicken,Dog,Pig,Horse,Rabbit,Sheep)
Molecular Weight:	Theoretical: 51 kDa. Actual: 51 kDa.
Purification:	Protein A purified

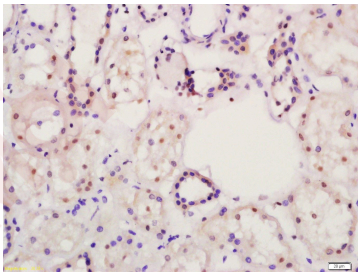
Applications

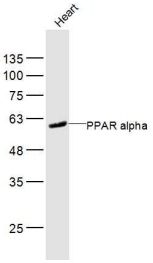
Verified Activity:

1. Sample:
Heart (Mouse) Lysate at 40 µg
Primary: Anti-PPAR alpha (TMAB-01564) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 51 kDa
Observed band size: 51 kDa
2. Blank control: HepG2. Primary Antibody (green line): Rabbit Anti-PPAR alpha antibody (TMAB-01564)
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.
3. Tissue/cell: human kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH6.0), Boiling bathing for 15 min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30 min; Blocking buffer (normal goat serum) at 37°C for 20 min;
Incubation: Anti-PPAR gamma 2 Polyclonal Antibody, Unconjugated 1:200, overnight at 4°C, followed by conjugation to the secondary antibody and DAb staining.
4. Sample:
Heart (Mouse) Lysate at 40 µg
Primary: Anti-PPAR alpha at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 51 kDa
Observed band size: 51 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: 1ug/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:	PPARalpha;4933429D07Rik;PPARα;Nr1c1;PPAR-alpha;AW742785;Ppar;peroxisome proliferator-activated receptor alpha;peroxisome proliferator-activated receptor α;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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