For Research Use Only

**PPARA**

**Polyclonal ANTIBODY**

Catalog Number: 15540-1-AP  
Featured Product  
41 Publications

### Basic Information

- **Catalog Number**: 15540-1-AP
- **Size**: 56 μg/150 μl
- **Source**: Rabbit
- **Isotype**: IgG
- **Purification Method**: Antigen affinity purification
- **Immunogen Catalog Number**: AG7896
- **GenBank Accession Number**: BCO00052
- **GenID (NCBI)**: 5465
- **Full Name**: peroxisome proliferator-activated receptor alpha
- **Calculated MW**: 52 kDa
- **Observed MW**: 52-55 kDa

### Applications

- **Tested Applications**: IHC, IP, WB, ELISA
- **Cited Applications**: IF, IHC, WB
- **Species Specificity**: human, mouse, rat  
  - Goat, human, mouse, Nile tilapia, rat
- **Recommended Dilutions**:
  - **WB**: 1:500-1:1000
  - **IP**: 0.5-4.0 ug for IP and 1:200-1:1000 for WB
  - **IHC**: 1:50-1:200

### Background Information

Peroxisome proliferator-activated receptor alpha (PPARA) is a ligand-activated transcription factor that belongs to the PPAR nuclear receptor superfamily. PPARA is essential in the modulation of lipid transport and metabolism, mainly through activating mitochondrial and peroxisomal fatty acid β-oxidation pathways. In addition, PPARA seems to decrease inflammation mainly through direct interaction with NF-κB, causing inhibition of its signaling pathway or reducing the activated levels of NF-κB and subsequent inflammation. Furthermore, PPARα was implicated in the attenuation of oxidative stress in alcoholic liver disease when treated with polyenephosphatidylcholine through downregulation of ROS-generating enzymes such as ethanol-inducible cytochrome P450 2E1 (CYP2E1), acyl-CoA oxidase, and NADPH oxidase. PPARα exists two isoforms and molecular weight of PPARα isoforms are 52 kDa and 22 kDa. The ability of a retinoid X receptor (RXR) to heterodimerize with many nuclear receptors, including LXR, PPAR, NGF1B and RAR, underscores its pivotal role within the nuclear receptor superfamily. Among these heterodimers, PPAR-RXR is considered an important signaling mediator of both PPAR ligands, such as fatty acids, and 9-cis retinoic acid (9-cis RA), an RXR ligand. (PMID: 15103326 ). PPARα can form Heterodimer with RXRA and molecular weight of Heterodimer is about 110 kDa.

### Notable Publications

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<thead>
<tr>
<th>Author</th>
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<th>Journal</th>
<th>Application</th>
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<tbody>
<tr>
<td>Si-Hui Huang</td>
<td>300946B</td>
<td>Mbi Nut Food Res</td>
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<td>Juan Ji</td>
<td>2778312</td>
<td>Neuropharmacology</td>
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<td>Deshi Dong</td>
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### Storage

- **Store at -20°C.** Stable for one year after shipment.
- **Storage Buffer**: PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
- **Aliquoting is unnecessary for -20°C storage**
MCF-7 cells were subjected to SDS PAGE followed by western blot with 15540-1-AP (PPARA antibody) at dilution of 1:600 incubated at room temperature for 1.5 hours.

IP Result of anti-PPARA (IP: 15540-1-AP, 4ug; Detection: 15540-1-AP 1:300) with U-937 cells lysate 400ug.

Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue slide using 15540-1-AP PPARα Antibody at dilution of 1:50 (under 40x lens)