

Polyclonal Antibody to PPAR delta - Aff - Purified

Catalog No.: SP5300P

Quantity: 0.1 ml

Concentration: 1.0 mg/ml

Background: Peroxisome proliferators are non-genotoxic 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 & 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 delta, like several other nuclear hormone receptors, heterodimerizes with retinoic X receptor (RXR) alpha to form a transcriptionally competent complex.

Host: Rabbit

Immunogen: Synthetic peptide corresponding to amino acid residues 1-14 from mouse PPAR delta.

AA Sequence:

M(1) E Q P Q E E T P E A R E E(14)C

Remarks: This sequence is 86% conserved in human PPAR delta.

The immunizing peptide (SP5300CP) is available for use in neutralization and control experiments.

Format: **State:** Liquid IgG fraction

Purification: Epitope affinity chromatography

Buffer System: PBS, containing 1 mg/ml BSA as stabilizer and 0.05% sodium azide as preservative

Applications: Western Blot: 1/500. Detects an ~49 kDa protein representing PPAR delta from NIH-3T3 cell lysate.

Immunohistochemistry on frozen sections: 1/200.

Immunofluorescence: 1/100.

Immunolocalization yields predominant nuclear staining.

Successful use in gel shift assay has been described for previous lots.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This antibody detects peroxisome proliferator activated receptor (PPAR) delta from tissues and cells. This antibody does not detect PPAR alpha or PPAR gamma.

Species: Mouse.

Other species not tested.

Add. Information:

PPAR is also known as FAAR. The corresponding gene for the PPAR delta is NR1C2.

Storage:

Store the antibody at -20°C. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

General Readings:

JBC Feb 2005 manuscript M412829200.

Neuroscience 131 (2005) 577-587.