

## PPAR $\alpha$ (H-98): sc-9000

### BACKGROUND

Peroxisome proliferator-activated receptors (PPARs) are nuclear hormone receptors that can be activated by a variety of compounds including fibrates, thiazolidinediones, prostaglandins and fatty acids. Three PPAR subtypes, designated PPAR $\alpha$ , PPAR $\beta$  (also designated PPAR $\delta$ ) and PPAR $\gamma$ , have been described. PPARs promote transcription by forming heterodimers with members of the retinoid X receptor (RXR) family of steroid receptors and binding to specific DNA motifs termed PPAR-response elements (PPREs). PPAR $\alpha$  is abundant in primary hepatocytes where it regulates the expression of proteins involved in fatty acid metabolism. PPAR $\beta$  is the most widely distributed subtype and is often expressed at high levels. PPAR $\gamma$  is predominantly seen in adipose tissue where it plays a critical role in regulating adipocyte differentiation. Interestingly, both the orphan nuclear hormone receptor LXR $\alpha$  and thyroid receptor (TR) have been shown to act as antagonists of PPAR $\alpha$ /RXR $\alpha$  binding to PPREs.

### REFERENCES

- Mansen, A., et al. 1996. Expression of the peroxisome proliferator-activated receptor (PPAR) in the mouse colonic mucosa. *Biochem. Biophys. Res. Comm.* 222: 844-851.
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- Miyata, K.S., et al. 1996. The orphan nuclear hormone receptor LXR $\alpha$  interacts with the peroxisome proliferator-activated receptor and inhibits peroxisome proliferator signaling. *J. Biol. Chem.* 271: 9189-9192.

### SOURCE

PPAR $\alpha$  (H-98) is a rabbit polyclonal antibody raised against amino acids 1-98 of PPAR $\alpha$  of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-9000 X, 200  $\mu$ g/0.1 ml.

### STORAGE

Store at 4 $^{\circ}$  C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

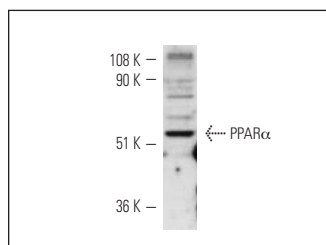
### APPLICATIONS

PPAR $\alpha$  (H-98) is recommended for detection of PPAR $\alpha$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PPAR $\alpha$  siRNA (h): sc-36307 and PPAR $\alpha$  siRNA (m): sc-36308.

PPAR $\alpha$  (H-98) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

### DATA



PPAR $\alpha$  (H-98): sc-9000. Western blot analysis of PPAR $\alpha$  expression in Hep G2 whole cell lysate.

### SELECT PRODUCT CITATIONS

- Bordji, K., et al. 2000. Evidence for the presence of peroxisome proliferator-activated receptor (PPAR)  $\alpha$  and  $\gamma$  and retinoid Z receptor in cartilage. PPAR  $\gamma$  activation modulates the effects of interleukin-1 $\beta$  on rat chondrocytes. *J. Biol. Chem.* 275: 12243-12250.
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