SANTA CRUZ BIOTECHNOLOGY, INC.

PPARα (H-98): sc-9000

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

Peroxisome proliferator-activated receptors (PPARs) are nuclear hormone receptors that can be activated by a variety of compounds including fibratus, thiazolidinediones, prostaglandins and fatty acids. Three PPAR subtypes, designated PPARα, PPARβ (also designated PPARδ) and PPARγ, 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). PPARα is abundant in primary hepatocytes where it regulates the expression of proteins involved in fatty acid metabolism. PPARβ is the most widely distributed subtype and is often expressed at high levels. PPARγ is predominantly seen in adipose tissue where it plays a critical role in regulating adipocyte differentiation. Interestingly, both the orphan nuclear hormone receptor LXRα and thyroid receptor (TR) have been shown to act as antagonists of PPARα/RXRα binding to PPREs.

CHROMOSOMAL LOCATION

Genetic locus: PPARA (human) mapping to 22q13.31; Ppara (mouse) mapping to 15 E2.

SOURCE

PPARα (H-98) is a rabbit polyclonal antibody raised against amino acids 1-98 of PPARα of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-9000 X, 200 µg/0.1 ml.

APPLICATIONS

PPARα (H-98) is recommended for detection of PPARα of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

PPARα (H-98) is also recommended for detection of PPARα in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for PPARα siRNA (h): sc-36307, PPARα siRNA (m): sc-36308, PPARα shRNA Plasmid (h): sc-36307-SH, PPARα shRNA Plasmid (m): sc-36308-SH, PPARα shRNA (h) Lentiviral Particles: sc-36307-V and PPARα shRNA (m) Lentiviral Particles: sc-36308-V

PPARα (H-98) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

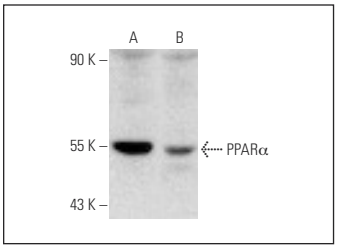
Molecular Weight of PPARα: 55 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or COLO 320DM cell lysate: sc-2226.

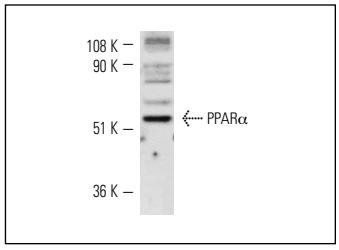
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



PPARα (H-98): sc-9000. Western blot analysis of PPARα expression in Hep G2 (**A**) and COLO 320DM (**B**) nuclear extracts.



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

SELECT PRODUCT CITATIONS

1. Bordji, K., et al. 2000. Evidence for the presence of peroxisome proliferator-activated receptor (PPAR) α and γ and retinoid Z receptor in cartilage. PPARγ activation modulates the effects of interleukin-1β on rat chondrocytes. J. Biol. Chem. 275: 12243-12250.
2. Zhou, Y., et al. 2011. Peroxisome proliferator-activated receptor-α is renoprotective in doxorubicin-induced glomerular injury. Kidney Int. 79: 1302-1311.
3. Fernández-Alvarez, A., et al. 2011. Human SREBP1c expression in liver is directly regulated by peroxisome proliferator-activated receptor α (PPARα). J. Biol. Chem. 286: 21466-21477.
4. Hara, S., et al. 2011. Bezafibrate restores the inhibition of FSH-induced follicular development and steroidogenesis by tumor necrosis factor-α through peroxisome proliferator-activated receptor-γ pathway in an *in vitro* mouse preantral follicle culture. Biol. Reprod. 85: 895-906.
5. Barroso, E., et al. 2011. The PPARβ/δ activator GW501516 prevents the down-regulation of AMPK caused by a high-fat diet in liver and amplifies the PGC-1α-Lipin 1-PPARα pathway leading to increased fatty acid oxidation. Endocrinology 152: 1848-1859.
6. Barbieri, M., et al. 2012. Effects of PPARs agonists on cardiac metabolism in littermate and cardiomyocyte-specific PPAR-γ-knockout (CM-PGKO) mice. PLoS ONE 7: e35999.

RESEARCH USE

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