

PPAR β (K-20): sc-1987

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 α , PPAR β (also designated PPAR δ) and PPAR γ , 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 α is abundant in primary hepatocytes where it regulates the expression of proteins involved in fatty acid metabolism. PPAR β is the most widely distributed subtype and is often expressed at high levels. PPAR γ is predominantly seen in adipose tissue where it plays a critical role in regulating adipocyte differentiation. Interestingly, both the orphan nuclear hormone receptor LXR α and thyroid receptor (TR) have been shown to act as antagonists of PPAR α /RXR α binding to PPREs.

REFERENCES

1. Brun, R.P., et al. 1996. Differential activation of adipogenesis by multiple PPAR isoforms. *Genes Dev.* 10: 974-984.
2. 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.

CHROMOSOMAL LOCATION

Genetic locus: PPAR δ (human) mapping to 6p21.1; Ppard (mouse) mapping to 17 A3.3.

SOURCE

PPAR β (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PPAR β of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-1987 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-1987 X, 200 μ g/0.1 ml.

SELECT PRODUCT CITATIONS

1. Korabiowska, M., et al. 2002. Decreased expression of Ku70/Ku80 proteins in malignant melanomas of the oral cavity. *Anticancer Res.* 22: 193-196.
2. Solanes, G., et al. 2003. Functional relationship between MyoD and PPAR-dependent regulatory pathways in the control of the human uncoupling protein-3 gene transcription. *Mol. Endocrinol.* 17: 1944-1958.

RESEARCH USE

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

APPLICATIONS

PPAR β (K-20) is recommended for detection of PPAR β (also designated PPAR δ) of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 β siRNA (h): sc-36305 and PPAR β siRNA (m): sc-36306; and as shRNA Plasmid control antibody for PPAR β shRNA Plasmid (h): sc-36305-SH and PPAR β shRNA Plasmid (m): sc-36306-SH.

PPAR β (K-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

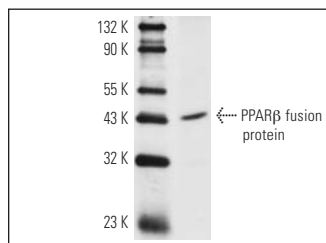
Molecular Weight of PPAR β : 52 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132 or Sol8 nuclear extract: sc-2157.

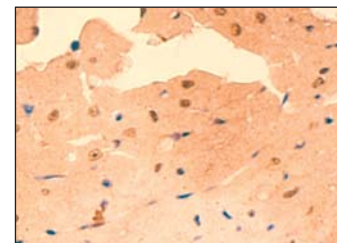
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz MarkerTM compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz MarkerTM Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruzTM Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruzTM: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



PPAR β (K-20): sc-1987. Western blot analysis of human recombinant PPAR β fusion protein.



PPAR β (K-20): sc-1987. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse heart tissue showing nuclear localization.

STORAGE

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