SANTA CRUZ BIOTECHNOLOGY, INC.

PPARγ (H-100): sc-7196

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.

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. Commun. 222: 844-851.
3. Braissant, O., et al. 1996. Differential expression of peroxisome proliferator-activated receptors (PPARs): tissue distribution of PPARα, β, and γ in the adult rat. Endocrinology 137: 354-366.

CHROMOSOMAL LOCATION

Genetic locus: PPARG (human) mapping to 3p25; Pparg (mouse) mapping to 6 E3-F1.

SOURCE

PPARγ (H-100) is a rabbit polyclonal antibody raised against amino acids 8-106 of PPARγ 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.

Available as agarose conjugate for immunoprecipitation, sc-7196 AC, 500 µg/0.25 ml agarose in 1 ml.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-7196 X, 200 µg/0.1 ml.

Available as HRP conjugate for Western blotting, sc-7196 HRP, 200 µg/1 ml.

STORAGE

Store at 4° 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

PPARγ (H-100) is recommended for detection of PPARγ$_1$ and PPARγ$_2$ 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).

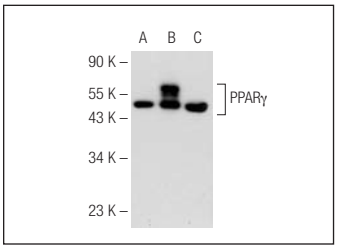
Suitable for use as control antibody for PPARγ siRNA (h): sc-29455, PPARγ siRNA (m): sc-29456, PPARγ siRNA (r): sc-156077, PPARγ shRNA Plasmid (h): sc-29455-SH, PPARγ shRNA Plasmid (m): sc-29456-SH, PPARγ shRNA Plasmid (r): sc-156077-SH, PPARγ shRNA (h) Lentiviral Particles: sc-29455-V, PPARγ shRNA (m) Lentiviral Particles: sc-29456-V and PPARγ shRNA (r) Lentiviral Particles: sc-156077-V.

PPARγ (H-100) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

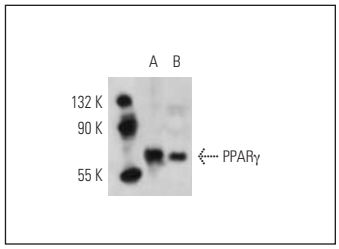
Molecular Weight of PPARγ: 67 kDa.

Positive Controls: human breast carcinoma, rat skeletal muscle extract or U-937 cell lysate: sc-2239.

DATA



PPARγ (H-100): sc-7196. Western blot analysis of PPARγ expression in non-transfected 293T: sc-117752 (**A**), human PPARγ transfected 293T: sc-159760 (**B**) and THP-1 (**C**) whole cell lysates.



PPARγ (H-100): sc-7196. Western blot analysis of PPARγ expression in THP-1 (**A**) and 3T3-L1 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Clark, R.B., et al. 2000. The nuclear receptor PPARγ and immunoregulation: PPARγ mediates inhibition of helper T cell responses. J. Immunol. 164: 1364-1371.
2. Benayoun, L., et al. 2001. Regulation of peroxisome proliferator-activated receptor γ expression in human asthmatic airways. Relationship with proliferation, apoptosis, and airway remodeling. Am. J. Respir. Crit. Care Med. 164: 1487-1494.
3. Medvedev, A.V., et al. 2001. Transcriptional regulation of the mouse uncoupling protein-2 gene. J. Biol. Chem. 276: 10817-10823.
4. Huang, W.C., et al. 2002. Superoxide anion-dependent Raf/MEK/ERK activation by peroxisome proliferator activated receptor γ agonists 15-deoxy-δ(12,14)-prostaglandin J(2), ciglitazone, and GW1929. Exp. Cell. Res. 277: 192-200.
5. Ibabe, A., et al. 2002. Expression of peroxisome proliferator-activated receptors in zebrafish (Danio rerio). Histochem. Cell Biol. 118: 231-239.