

# PPAR $\gamma$ (H-100): sc-7196

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: PPARG (human) mapping to 3p25.2; Pparg (mouse) mapping to 6 E3.

## SOURCE

PPAR $\gamma$  (H-100) is a rabbit polyclonal antibody raised against amino acids 8-106 of PPAR $\gamma$  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 agarose conjugate for immunoprecipitation, sc-7196 AC, 500  $\mu$ g/0.25 ml agarose in 1 ml.

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

Available as HRP conjugate for Western blotting, sc-7196 HRP, 200  $\mu$ g/1 ml.

## APPLICATIONS

PPAR $\gamma$  (H-100) is recommended for detection of PPAR $\gamma_1$  and PPAR $\gamma_2$  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).

PPAR $\gamma$  (H-100) is also recommended for detection of PPAR $\gamma_1$  and PPAR $\gamma_2$  in additional species, including canine and porcine.

Suitable for use as control antibody for PPAR $\gamma$  siRNA (h): sc-29455, PPAR $\gamma$  siRNA (m): sc-29456, PPAR $\gamma$  shRNA Plasmid (h): sc-29455-SH, PPAR $\gamma$  shRNA Plasmid (m): sc-29456-SH, PPAR $\gamma$  shRNA (h) Lentiviral Particles: sc-29455-V and PPAR $\gamma$  shRNA (m) Lentiviral Particles: sc-29456-V.

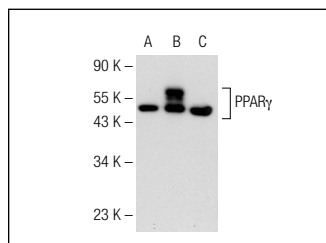
PPAR $\gamma$  (H-100) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of PPAR $\gamma$  isoforms: 54/57 kDa.

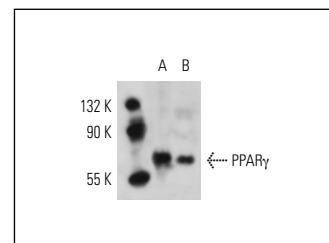
## STORAGE

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

## DATA



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



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

## SELECT PRODUCT CITATIONS

- Clark, R.B., et al. 2000. The nuclear receptor PPAR $\gamma$  and immunoregulation: PPAR $\gamma$  mediates inhibition of helper T cell responses. *J. Immunol.* 164: 1364-1371.
- Medvedev, A.V., et al. 2001. Transcriptional regulation of the mouse uncoupling protein-2 gene. *J. Biol. Chem.* 276: 10817-10823.
- Ibabe, A., et al. 2002. Expression of peroxisome proliferator-activated receptors in zebrafish (*Danio rerio*). *Histochem. Cell Biol.* 118: 231-239.
- Huang, W.C., et al. 2002. Superoxide anion-dependent Raf/MEK/ERK activation by peroxisome proliferator activated receptor  $\gamma$  agonists 15-deoxy- $\delta$ (12,14)-prostaglandin J(2), ciglitazone, and GW1929. *Exp. Cell. Res.* 277: 192-200.
- Boustead, J.N., et al. 2003. Hepatocyte nuclear factor-4  $\alpha$  mediates the stimulatory effect of peroxisome proliferator-activated receptor  $\gamma$  co-activator-1  $\alpha$  (PGC-1  $\alpha$ ) on glucose-6-phosphatase catalytic subunit gene transcription in H4IIE cells. *Biochem. J.* 369: 17-22.
- De Souza, C.T., et al. 2005. Short-term inhibition of peroxisome proliferator-activated receptor- $\gamma$  coactivator-1 $\alpha$  expression reverses diet-induced diabetes mellitus and hepatic steatosis in mice. *Diabetologia* 48: 1860-1871.
- Are, A., et al. 2008. Enterococcus faecalis from newborn babies regulate endogenous PPAR $\gamma$  activity and IL-10 levels in colonic epithelial cells. *Proc. Natl. Acad. Sci. USA* 105: 1943-1948.
- Palozza, P., et al. 2011. Lycopene regulation of cholesterol synthesis and efflux in human macrophages. *J. Nutr. Biochem.* E-published.

## RESEARCH USE

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