

PPAR γ (C-20): sc-1981

BACKGROUND

Peroxisome proliferator-activated receptors (PPARs) are members of the nuclear hormone receptor subfamily of transcription factors. PPARs form heterodimers with retinoid X receptors (RXRs). These heterodimers regulate transcription of genes involved in Insulin action, adipocyte differentiation, lipid metabolism and inflammation. PPAR γ is implicated in numerous diseases including obesity, diabetes, atherosclerosis and cancer. PPAR γ activators include prostanoids, fatty acids, thiazolidinediones and N-(2-benzoylphenyl) tyrosine analogues. A key component in adipocyte differentiation and fat-specific gene expression, PPAR γ may modulate macrophage functions such as proinflammatory activities, and stimulate oxidized low-density lipoprotein (x-LDL) uptake. A Pro12Ala polymorphism of the PPAR γ 2 gene has been reported to reduce transactivation activity *in vitro*. This substitution may affect the immune response to ox-LDL and be associated with type 2 diabetes. In addition, the Pro12Ala variant of the PPAR γ 2 gene maybe correlated with abdominal obesity in type 2 diabetes.

REFERENCES

1. Brun, R.P., et al. 1996. Differential activation of adipogenesis by multiple PPAR isoforms. *Genes Dev.* 10: 974-984.
2. Sterchele, P.F., et al. 1996. Regulation of peroxisome proliferator-activated receptor- α mRNA in rat liver. *Arch. Biochem. Biophys.* 326: 281-289.

SOURCE

PPAR γ (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of PPAR γ of human 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-1981 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-1981 X, 200 μ g/0.1 ml.

APPLICATIONS

PPAR γ (C-20) is recommended for detection of PPAR γ 1 and PPAR γ 2 and PPAR β 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); weakly cross-reactive with PPAR α .

PPAR γ (C-20) is also recommended for detection of PPAR γ in additional species, including equine, canine, bovine, porcine and avian.

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

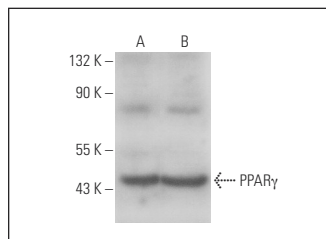
Molecular Weight of PPAR γ isoforms: 54/57 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HEK293 whole cell lysate: sc-45136 or THP-1 cell lysate: sc-2238.

STORAGE

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

DATA



PPAR γ (C-20): sc-1981. Western blot analysis of PPAR γ expression in HEK293 (A) and Jurkat (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Galetto, R., et al. 2001. Identification of a peroxisome-proliferator-activated-receptor response element in the apolipoprotein E gene control region. *Biochem. J.* 357: 521-527.
2. Erl, W., et al. 2004. Cyclopentenone prostaglandins induce endothelial cell apoptosis independent of the peroxisome proliferator-activated receptor- γ . *Eur. J. Immunol.* 34: 241-250.
3. Qiao, L., et al. 2005. C/EBP α regulates human adiponectin gene transcription through an intronic enhancer. *Diabetes* 54: 1744-1754.
4. Martín, R., et al. 2012. DIOL Triterpenes block profibrotic effects of angiotensin II and protect from cardiac hypertrophy. *PLoS ONE* 7: e41545.
5. García-Ruiz, I., et al. 2014. High-fat diet decreases activity of the oxidative phosphorylation complexes and causes nonalcoholic steatohepatitis in mice. *Dis. Model. Mech.* 7: 1287-1296.
6. Li, H.X., et al. 2015. Chemerin inhibition of myogenesis and induction of adipogenesis in C2C12 myoblasts. *Mol. Cell. Endocrinol.* 414: 216-223.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **PPAR γ (E-8): sc-7273** or **PPAR γ (B-5): sc-271392**, our highly recommended monoclonal alternatives to PPAR γ (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **PPAR γ (E-8): sc-7273**.