

PPAR γ (I-18): sc-6285

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.

CHROMOSOMAL LOCATION

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

SOURCE

PPAR γ (I-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-6285 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-6285 X, 200 μ g/0.1 ml.

APPLICATIONS

PPAR γ (I-18) is recommended for detection of PPAR γ_1 and PPAR γ_2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 γ (I-18) is also recommended for detection of PPAR γ_1 and PPAR γ_2 in additional species, including equine, canine, bovine, porcine and avian.

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

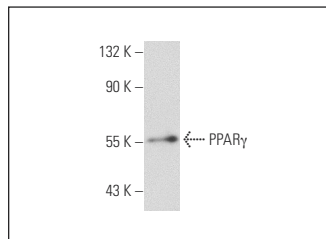
PPAR γ (I-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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

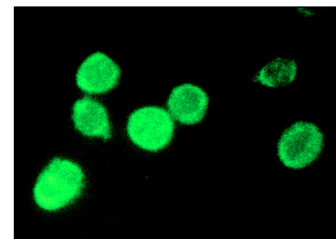
STORAGE

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

DATA



PPAR γ (I-18): sc-6285. Western blot analysis of human recombinant PPAR γ .



PPAR γ (I-18): sc-6285. Immunofluorescence staining of methanol-fixed U-937 cells showing nuclear localization.

SELECT PRODUCT CITATIONS

- Li, L., et al. 2001. 15-deoxy- δ 12,14-prostaglandin J2 induces apoptosis of human hepatic myofibroblasts. A pathway involving oxidative stress independently of peroxisome-proliferator-activated receptors. *J. Biol. Chem.* 276: 38152-38158.
- Westergaard, M., et al. 2003. Expression and localization of peroxisome proliferator-activated receptors and nuclear factor κ B in normal and lesional psoriatic skin. *J. Invest. Dermatol.* 121: 1104-1107.
- Simon, D.M., et al. 2006. Epithelial cell PPAR γ contributes to normal lung maturation. *FASEB J.* 20: 1507-1509.
- Sauma, L., et al. 2006. PPAR γ response element activity in intact primary human adipocytes: effects of fatty acids. *Nutrition* 22: 60-68.
- Sharma, I., et al. 2010. *In vitro* effects of atorvastatin on lipopolysaccharide-induced gene expression in endometriotic stromal cells. *Fertil. Steril.* 94: 1639-1646.
- Viscarra, J.A., et al. 2011. Glut4 is upregulated despite decreased Insulin signaling during prolonged fasting in northern elephant seal pups. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 300: R150-R154.
- Naito, Y., et al. 2011. Gastric peroxisome proliferator activator receptor- γ expression and cytoprotective actions of its ligands against ischemia-reperfusion injury in rats. *J. Clin. Biochem. Nutr.* 48: 170-177.

RESEARCH USE

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

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