

PPAR γ (h4): 293T Lysate: sc-110516

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 (ox-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., Tontonoz, P., Forman, B.M., Ellis, R., Chen, J., Evans, R.M. and Spiegelman, B.M. 1996. Differential activation of adipogenesis by multiple PPAR isoforms. *Genes Dev.* 10: 974-984.
2. Mansén, A., Guardiola-Diaz, H., Rafter, J., Branting, C. and Gustafsson, J.A. 1996. Expression of the peroxisome proliferator-activated receptor (PPAR) in the mouse colonic mucosa. *Biochem. Biophys. Res. Commun.* 222: 844-851.
3. Sterchele, P.F., Sun, H., Peterson, R.E. and Vanden Heuvel, J.P. 1996. Regulation of peroxisome proliferator-activated receptor- α mRNA in rat liver. *Arch. Biochem. Biophys.* 326: 281-289.
4. Braissant, O., Foulle, F., Scotto, C., Dauça, M. and Wahli, W. 1996. Differential expression of peroxisome proliferator-activated receptors (PPARs): tissue distribution of PPAR α , β and γ in the adult rat. *Endocrinology* 137: 354-366.
5. Lemberger, T., Saladin, R., Vázquez, M., Assimakopoulos, F., Staels, B., Desvergne, B., Wahli, W. and Auwerx, J. 1996. Expression of the peroxisome proliferator-activated receptor α gene is stimulated by stress and follows a diurnal rhythm. *J. Biol. Chem.* 271: 1764-1769.
6. Miyata, K.S., McCaw, S.E., Patel, H.V., Rachubinski, R.A. and Capone, J.P. 1996. The orphan nuclear hormone receptor LXR α interacts with the peroxisome proliferator-activated receptor and inhibits peroxisome proliferator signaling. *J. Biol. Chem.* 271: 9189-9192.
7. Hunter, J., Kassam, A., Winrow, C.J., Rachubinski, R.A. and Capone, J.P. 1996. Crosstalk between the thyroid hormone and peroxisome proliferator-activated receptors in regulating peroxisome proliferator-responsive genes. *Mol. Cell. Endocrinol.* 116: 213-221.

CHROMOSOMAL LOCATION

Genetic locus: PPARG (human) mapping to 3p25.2.

RESEARCH USE

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

PRODUCT

PPAR γ (h4): 293T Lysate represents a lysate of human PPAR γ transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

PPAR γ (h4): 293T Lysate is suitable as a Western Blotting positive control for human reactive PPAR γ antibodies. Recommended use: 10-20 μ l per lane.

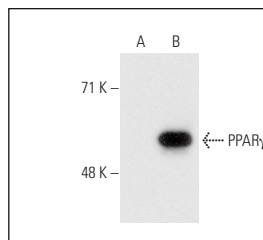
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PPAR γ (B-5): sc-271392 is recommended as a positive control antibody for Western Blot analysis of enhanced human PPAR γ expression in PPAR γ transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

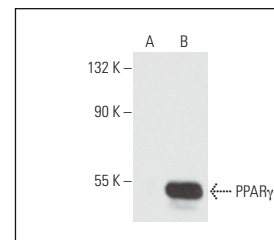
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG λ BP-HRP: sc-516132 or m-IgG λ BP-HRP (Cruz Marker): sc-516132-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



PPAR γ (B-5): sc-271392. Western blot analysis of PPAR γ expression in non-transfected: sc-117752 (A) and human PPAR γ transfected: sc-110516 (B) 293T whole cell lysates.



PPAR γ (E-8): sc-7273. Western blot analysis of PPAR γ expression in non-transfected: sc-117752 (A) and human PPAR γ transfected: sc-110516 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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