PGC-1β (M-142): sc-67286

SANTA CRUZ®
BIOTECHNOLOGY

The Power to Question

BACKGROUND

Transcription factors exert their effects by associating with co-activator or corepressor proteins. The co-activator complexes are thought to be constitutively active, requiring only proper positioning in the genome to initiate transcription. Co-activators include the steroid receptor co-activator (SRC) and CREB binding protein (CBP) families that contain histone acetyltransferase (HAT) activity, which modifies chromatin structure. PPARγ co-activator-1β (PGC-1β), also known as PERC or PPARGC1B, functions as a transcriptional activator for NRF-1 (nuclear respiratory factor-1), ERα (estrogen receptor α) and GR (glucocorticoid receptor). Through its interaction with various receptors, PGC-1β is involved in the regulation of mitochondrial biogenesis events such as energy expenditure and non-oxidative glucose metabolism. Expressed throughout the body with the highest expression in brain, heart and skeletal muscle, PGC-1β is induced by Insulin and repressed by saturated fatty acids. The gene encoding PGC-1β is polymorphic and variations in the expressed protein may contribute to the development of obesity.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PPARGC1B (human) mapping to 5q32; Ppargc1b (mouse) mapping to 18 E1.

SOURCE

PGC-1β (M-142) is a rabbit polyclonal antibody raised against amino acids 452-593 mapping within an internal region of PGC-1β of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PGC-1β (M-142) is recommended for detection of PGC-1β of mouse, rat and, to a lesser extent, 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 PGC-1β siRNA (h): sc-62783, PGC-1β siRNA (m): sc-62784, PGC-1β shRNA Plasmid (h): sc-62783-SH, PGC-1β shRNA Plasmid (m): sc-62784-SH, PGC-1β shRNA (h) Lentiviral Particles: sc-62783-V and PGC-1β shRNA (m) Lentiviral Particles: sc-62784-V.

Molecular Weight of PGC-1β: 113 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

MONOS
Satisfaction
Guaranteed

Try **PGC-1β (E-9): sc-373771**, our highly recommended monoclonal alternative to PGC-1β (M-142). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **PGC-1β (E-9): sc-373771**.