PGC-1α (H-300): sc-13067

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-1 (PGC-1) is a transcriptional cofactor of nuclear respiratory factor-1 (NRF-1), PPARβ, PPARα and other nuclear receptors that is induced by exposure to cold temperatures and is involved in regulating thermogenic gene expression, protein uncoupling and mitochondrial biogenesis. PGC-1 has a low inherent transcriptional activity when it is not bound to a transcription factor. Docking of PGC-1 to PPARγ stimulates an apparent conformational change that then enables PGC-1 to bind to and assemble into complexes, which include the additional cofactors SRC-1 and CBP/p300, and results in a large increase in transcriptional activity.

CHROMOSOMAL LOCATION

Genetic locus: PPARGC1A (human) mapping to 4p15.2; Ppargc1a (mouse) chromosomal location

SOURCE

PGC-1α (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping near the N-terminus of PGC-1α of human 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-1α (H-300) is recommended for detection of PGC-1α of mouse, rat and 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), immunofluorescence (starting dilution 1:50, dilution range 1:100-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PGC-1α (H-300) is also recommended for detection of PGC-1α in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PGC-1α siRNA (h): sc-38884, PGC-1α siRNA (m): sc-38885, PGC-1α shRNA Plasmid (h): sc-38884-SH, PGC-1α shRNA Plasmid (m): sc-38885-SH, PGC-1α shRNA (h) Lentiviral Particles: sc-38884-V and PGC-1α shRNA (m) Lentiviral Particles: sc-38885-V.

Molecular Weight of PGC-1α: 90 kDa.


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.

DATA

PGC-1α (H-300): sc-13067. Western blot analysis of PGC-1α expression in DU 145 (A) and A 673 (B) nuclear extracts.

SELECT PRODUCT CITATIONS


Try PGC-1α (168): sc-293168, our highly recommended monoclonal alternative to PGC-1α (H-300).