Background: PPARγ coactivator-1α (PGC-1α) was originally identified as a transcriptional coactivator whose expression closely correlated with adaptive thermogenesis following exposure to cold temperatures (1). Named for its association with the nuclear receptor peroxisome-proliferator activated receptor (PPARγ), PGC-1α interacts with a diverse array of transcription factors to regulate numerous aspects of cell physiology (2). PGC-1α helps to regulate cell processes important in adaptive thermogenesis and energy metabolism, including the related functions of glucose uptake, gluconeogenesis, insulin secretion, and mitochondrial biogenesis (3). Long thought to be a potential therapeutic target for the treatment of type II diabetes, obesity, cardiomyopathy, or other metabolic disorders (reviewed in 4), a recent functional survey found no obvious differences in PPARγ activity associated with recognized PGC-1α variants (5).

Specificity/Sensitivity: PGC1α Antibody detects transfected levels of total PGC1α protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide derived from the sequence of human PGC1α. Antibodies are purified by protein A and peptide affinity chromatography.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:
Western blotting 1:1000
For application specific protocols please see the web page for this product at www.cellsignal.com.

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Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.