Human PGC1α Alexa Fluor® 647-conjugated Antibody

Antigen Affinity-purified Polyclonal Rabbit IgG
Catalog Number: AF6650R
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human PGC1α when phosphorylated at S571 in Western blots.
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	Phosphopeptide containing the human PGC1α S571 site.
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

PGC-1α (PPAR-γ coactivator 1; also LEM6) is a 97-120 kDa member of the PGC-1 family of proteins. It is expressed in select cell types, including brown adipocytes, skeletal muscle and hepatocytes. PGC-1α participates in both RNA processing and transcriptional coactivation in conjunction with multiple nuclear hormone receptors such as PPARγ, RAR and TR. Human PCG-1α is 798 amino acids (aa) in length. It contains an LxxLL nuclear receptor binding motif (aa 144-148), one PPAR-γ interaction domain (aa 293-339), two NLSs and an RNA binding/processing region (aa 566-710). PGC-1α activity is regulated by phosphorylation. AMPK is known to phosphorylate Thr178 and Ser539, promoting cotranscriptional activity. Conversely, Akt-mediated phosphorylation at Ser571 is reported to downregulate PGC-1α activity. This latter effect is achieved by an initial Ser571 phosphorylation, followed by GCN5 binding and subsequent PCG-1α acetylation that promotes PGC-1α dissociation from target gene promoters.

PRODUCT SPECIFIC NOTICES

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Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475