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PGC-1 alpha Blocking Peptide
Catalog # PBV10446b

Specification

PGC-1 alpha Blocking Peptide - Product Information

Primary Accession	O70343
Other Accession	NP_032930.1
Gene ID	19017
Calculated MW	90588

PGC-1 alpha Blocking Peptide - Additional Information

Gene ID 19017

Application & Usage	**The peptide is used for blocking the antibody activity of PGC-1 alpha. It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30-60 minutes at 37°C.**

Other Names
Peroxisome proliferator-activated receptor gamma coactivator 1-alpha, PGC-1-alpha, PPAR-gamma coactivator 1-alpha, PPARGC-1-alpha, Ppargc1a, Pgc1, Pgc1a, Ppargc1

Target/Specificity
PGC-1 alpha

Formulation
50 µg (0.5 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA and 0.02% thimerosal.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
PGC-1 alpha Blocking Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

PGC-1 alpha Blocking Peptide - Protein Information

Name Ppargc1a

Synonyms Pgc1, Pgc1a, Ppargc1

Function

Transcriptional coactivator for steroid receptors and nuclear receptors (PubMed:15744310, PubMed:12754525, PubMed:23217713, PubMed:9529258). Greatly increases the transcriptional activity of PPARG and thyroid hormone receptor on the uncoupling protein promoter (PubMed:15744310, PubMed:12754525, PubMed:23217713, PubMed:9529258). Can regulate key mitochondrial genes that contribute to the program of adaptive thermogenesis (PubMed:15744310, PubMed:12754525, PubMed:23217713, PubMed:9529258). Plays an essential role in metabolic reprogramming in response to dietary availability through coordination of the expression of a wide array of genes involved in glucose and fatty acid metabolism (PubMed:15744310, PubMed:12754525, PubMed:23217713, PubMed:9529258). Acts as a key regulator of gluconeogenesis: stimulates hepatic gluconeogenesis by increasing the expression of gluconeogenic enzymes, and acting together with FOXO1 to promote the fasting gluconeogenic program (PubMed:12754525). Induces the expression of PERM1 in the skeletal muscle in an ESRRA-dependent manner (By similarity). Also involved in the integration of the circadian rhythms and energy metabolism (PubMed:17476214). Required for oscillatory expression of clock genes, such as BMAL1 and NR1D1, through the coactivation of RORA and RORC, and metabolic genes, such as PDK4 and PEPCK (PubMed:17476214).

Cellular Location
Nucleus. Nucleus, PML body

Tissue Location
White quadriceps and red tibialis anterior (TA) muscles, liver, kidney and brown adipose tissue (at protein level) Skeletal muscle, brown adipose tissue, heart, kidney and brain

PGC-1 alpha Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PGC-1 alpha Blocking Peptide - Images