

Product datasheet

Anti-PGC1 alpha antibody ab84139

[2 Images](#)

Overview

Product name	Anti-PGC1 alpha antibody
Description	Rabbit polyclonal to PGC1 alpha
Specificity	The immunogen sequence for this antibody is 47% homologous with PGC1 beta (Uniprot: Q86YN6).
Tested applications	Suitable for: IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to a region within residues 250 and 300 of human PGC1 alpha (SwissProt entry Q9UBK2).
Positive control	Human stomach adenocarcinoma; human colon adenocarcinoma, ovarian carcinoma
General notes	This product may be covered by one or more of the following U.S. Patents. 6,166,192 6,426,411 6,525,178 6,872,391 6,908,987 7,250,283 7,091,006 7,354,738 8,105,774 8,445,233

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.09% Sodium Azide Constituents: 0.1% BSA, Tris buffered saline
Purity	Immunogen affinity purified
Purification notes	Affinity purified using an epitope specific to PGC1 alpha immobilized on solid support.
Clonality	Polyclonal

Isotype

IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab84139** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/100 - 1/500.
IF		1/50 - 1/500.

Target

Function

Transcriptional coactivator for steroid receptors and nuclear receptors. Greatly increases the transcriptional activity of PPARG and thyroid hormone receptor on the uncoupling protein promoter. Can regulate key mitochondrial genes that contribute to the program of adaptive thermogenesis. 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. Induces the expression of PERM1 in the skeletal muscle in an ESRRA-dependent manner. Also involved in the integration of the circadian rhythms and energy metabolism. Required for oscillatory expression of clock genes, such as ARNTL/BMAL1 and NR1D1, through the coactivation of RORA and RORC, and metabolic genes, such as PDK4 and PEPCK.

Tissue specificity

Heart, skeletal muscle, liver and kidney. Expressed at lower levels in brain and pancreas and at very low levels in the intestine and white adipose tissue. In skeletal muscle, levels were lower in obese than in lean subjects and fasting induced a 2-fold increase in levels in the skeletal muscle in obese subjects.

Sequence similarities

Contains 1 RRM (RNA recognition motif) domain.

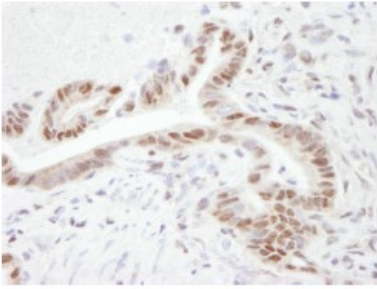
Post-translational modifications

Phosphorylation by AMPK in skeletal muscle increases activation of its own promoter.
Phosphorylated by CLK2.
Heavily acetylated by GCN5 and biologically inactive under conditions of high nutrients.
Deacetylated by SIRT1 in low nutrients/high NAD conditions.
Ubiquitinated. Ubiquitination by RNF34 induces proteasomal degradation.

Cellular localization

Cytoplasm. Nucleus; Nucleus and Nucleus. Nucleus, PML body.

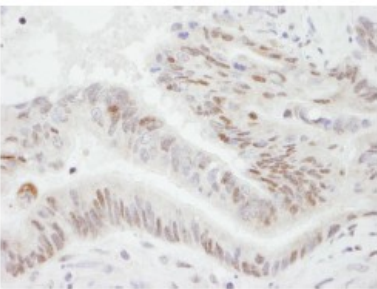
Images



ab84139, at a 1/250 dilution, staining PGC1 alpha in formalin fixed, paraffin embedded human stomach adenocarcinoma by Immunohistochemistry.

Detection: DAB

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - PGC1 alpha antibody (ab84139)



ab84139, at a 1/250 dilution, staining PGC1 alpha in formalin fixed, paraffin embedded human colon adenocarcinoma by Immunohistochemistry.

Detection: DAB

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - PGC1 alpha antibody (ab84139)

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