

## Product datasheet

# Recombinant Human PGC1 alpha protein ab124541

[1 References](#) [2 Images](#)

### Overview

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<b>Product name</b>	Recombinant Human PGC1 alpha protein
<b>Protein length</b>	Protein fragment

### Description

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<b>Nature</b>	Recombinant
<b>Source</b>	Escherichia coli

### Amino Acid Sequence

<b>Accession</b>	<a href="#">Q9UBK2</a>
<b>Species</b>	Human
<b>Sequence</b>	TGELRDSDFS NEQFSKLP MF INSGLAM DGL FDDSEDESDK LSY PWDGTQS YSLFNVSPSC SSFNSPCRDS VSPPKSLFSQ RPQRMRSRSR SFSRHRSCSR SPYSRSRSRS PGSRSSRSC YYESSHYRH RTHRNSPLYW RSRSRSPYSR RPRYDSYEEY QHERLKREEY RREYEKRESE RAKQRERQRQ KAIEERRVIY VGKIRPD TTR TELDRDFEVF GEIEECTVNL RDDGDSYGF I TYRYTDAFA ALENGYTLRR SNETDFELYF CGRKQFFKSN YADLDSNSDD FDPASTKSKY DSLDFD SLLK EAQRSLRR
<b>Molecular weight</b>	38 kDa
<b>Amino acids</b>	481 to 798
<b>Tags</b>	His tag C-Terminus

### Specifications

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Our [Abpromise guarantee](#) covers the use of **ab124541** in the following tested applications.

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

<b>Applications</b>	SDS-PAGE
	ELISA
	Western blot

<b>Purity</b>	> 80 % .
<b>Form</b>	Liquid
<b>Additional notes</b>	Product was previously marketed under the MitoSciences sub-brand.

## Preparation and Storage

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<b>Stability and Storage</b>	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 7.40 Constituents: 78% PBS, 20% Glycerol, 1.75% Sodium chloride
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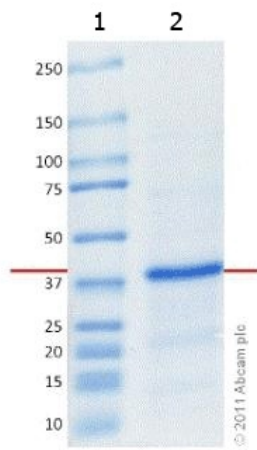
## General Info

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<b>Function</b>	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.
<b>Tissue specificity</b>	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.
<b>Sequence similarities</b>	Contains 1 RRM (RNA recognition motif) domain.
<b>Post-translational modifications</b>	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.
<b>Cellular localization</b>	Cytoplasm. Nucleus; Nucleus and Nucleus. Nucleus, PML body.

## Images

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SDS-PAGE - PGC1 alpha protein (His tag)  
(ab124541)

**Lane 1 :** Marker

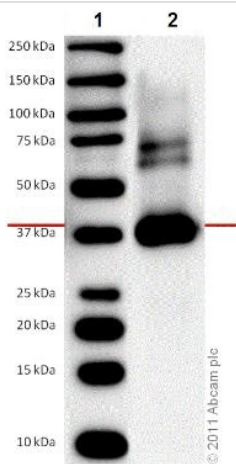
**Lane 2 :** PGC1 alpha protein (His tag)  
(ab124541) at 1 µg

**Gel:** 10-20% acrylamide separation gel

**Predicted band size :** 38 kDa

**Observed band size :** 38 kDa

Stained with Coomassie Blue.



Western blot - PGC1 alpha protein (His tag)  
(ab124541)

**All lanes :** Anti-PGC1 alpha + beta antibody  
(ab72230) at 1 µg/ml

**Lane 1 :** Marker

**Lane 2 :** Recombinant Human PGC1 alpha  
protein (ab124541) at 0.01 µg

**Secondary**

**All lanes :** Goat polyclonal to Rabbit IgG –  
H&L – Pre-Adsorbed (HRP) at 1/10000  
dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 38 kDa

**Observed band size:** 38 kDa

**Exposure time:** 5 minutes

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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