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ARG67307
anti-PGC1 alpha antibody [6G01]

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [6G01] recognizes PGC1 alpha
Tested Reactivity	Hu
Tested Application	WB
Host	Mouse
Clonality	Monoclonal
Clone	6G01
Target Name	PGC1 alpha
Species	Human
Immunogen	Recombinant protein of Human PGC1 alpha.
Conjugation	Un-conjugated
Alternate Names	Ligand effect modulator 6; PGC1; PPARGC-1-alpha; PPARGC1; PGC1A; PPAR-gamma coactivator 1-alpha; PGC-1v; LEM6; PGC-1-alpha; Peroxisome proliferator-activated receptor gamma coactivator 1-alpha; PGC-1(alpha)

Application Instructions

Application table

Application	Dilution
WB	1:500 - 1:2000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS, 50% glycerol, 0.02% sodium azide, 0.5%BSA
Preservative	0.02% sodium azide
Stabilizer	50% glycerol and 0.5% BSA
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	PPARGC1A
Gene Full Name	peroxisome proliferator-activated receptor gamma, coactivator 1 alpha
Background	The protein encoded by this gene is a transcriptional coactivator that regulates the genes involved in energy metabolism. This protein interacts with PPARgamma, which permits the interaction of this protein with multiple transcription factors. This protein can interact with, and regulate the activities of, cAMP response element binding protein (CREB) and nuclear respiratory factors (NRFs). It provides a direct link between external physiological stimuli and the regulation of mitochondrial biogenesis, and is a major factor that regulates muscle fiber type determination. This protein may be also involved in controlling blood pressure, regulating cellular cholesterol homoeostasis, and the development of obesity. [provided by RefSeq, Jul 2008]
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. [UniProt]
Calculated Mw	91 kDa
PTM	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. [UniProt]
Cellular Localization	Nucleus, Nucleus, PML body, Cytoplasm. [UniProt]

Images

ARG67307 anti-PGC1 alpha antibody [6G01] WB image

Western blot: HEK293 stained with ARG67307 anti-PGC1 alpha antibody [6G01].