Anti-PGC1 alpha+beta Antibody [JF09-71]

ET1702-96

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB
Molecular Wt:	Predicted band size: 91/113 kDa
Clone number:	JF09-71

Description: Peroxisome proliferator-activated receptor gamma coactivator 1-alpha (PGC-1α) is a protein that in humans is encoded by the PPARGC1A gene. PPARGC1A is also known as human accelerated region 20 (HAR20). It may, therefore, have played a key role in differentiating humans from apes. PGC-1α is the master regulator of mitochondrial biogenesis. PGC-1α is also the primary regulator of liver gluconeogenesis, inducing increased gene expression for gluconeogeneis. PGC-1α is a transcriptional coactivator that regulates the genes involved in energy metabolism. Peroxisome proliferator-activated receptor gamma coactivator 1-beta is a protein that in humans is encoded by the PPARGC1B gene. The protein encoded by this gene stimulates the activity of several transcription factors and nuclear receptors, including estrogen receptor alpha, nuclear respiratory factor 1, and glucocorticoid receptor. The encoded protein may be involved in fat oxidation, non-oxidative glucose metabolism, and the regulation of energy expenditure. This protein is downregulated in prediabetic and type 2 diabetes mellitus patients. Certain allelic variations in this gene increase the risk of the development of obesity.

Immunogen: Synthetic peptide within Human PGC1 alpha aa 755-798 /798 and aa 269-323 /798.

Positive control: Mouse brain tissue lysate, rat brain tissue lysate, SK-Br-3 cell lysate.

Subcellular location: Nucleus.

Database links: SwissProt: Q86YN6 Human | Q9UBK2 Human | 415302 Mouse | O70343 Mouse | Q8VHJ7 Mouse | Q811R2 Rat | Q9QYK2 Rat

Recommended Dilutions:

WB 1:500-1:2,000

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

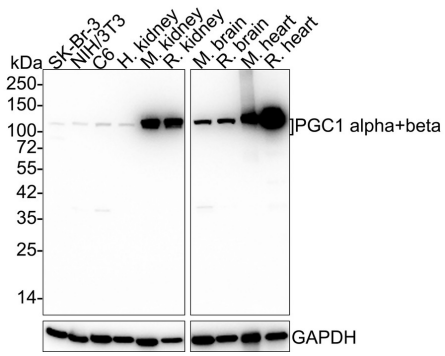

Fig1: Western blot analysis of PGC1 alpha+beta on different lysates with Rabbit anti-PGC1 alpha+beta antibody (ET1702-96) at 1/2,000 dilution.

Lane 1: SK-Br-3 cell lysate
Lane 2: NIH/3T3 cell lysate
Lane 3: C6 cell lysate
Lane 4: Human kidney tissue lysate
Lane 5: Mouse kidney tissue lysate
Lane 6: Rat kidney tissue lysate
Lane 7: Mouse brain tissue lysate
Lane 8: Rat brain tissue lysate
Lane 9: Mouse heart tissue lysate
Lane 10: Rat heart tissue lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 91/113 kDa
Observed band size: 91/113 kDa

Exposure time: 43 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1702-96) at 1/2,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Background References

1. Jiao J et al. Chronic leucine supplementation improves lipid metabolism in C57BL/6J mice fed with a high-fat/cholesterol diet. Food Nutr Res 60:31304 (2016).
2. Al-Rewashdy H et al. Utrophin A is essential in mediating the functional adaptations of mdx mouse muscle following chronic AMPK activation. Hum Mol Genet 24:1243-55 (2015).