

## AMPK alpha 1 Rabbit pAb

Catalog Number: bs-1115R

Target Protein: AMPK alpha 1

Concentration: 1mg/ml

Form: Liquid

Host: Rabbit

Clonality: Polyclonal

Isotype: IgG

Applications: IHC-P (1:100-500), IHC-F (1:100-500), IF (1:100-500), Flow-Cyt (1ug/Test)

Reactivity: Human, Mouse, Rat (predicted:Pig, Cow, Chicken, Dog, Horse)

Predicted MW: 64 kDa

Entrez Gene: 5562

Source: KLH conjugated synthetic peptide derived from human AMPK alpha 1: 351-450/559.

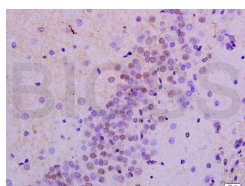
Purification: affinity purified by Protein G

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

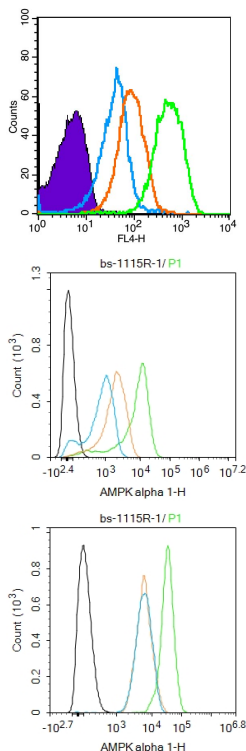
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

**Background:** The protein encoded by this gene belongs to the ser/thr protein kinase family. It is the catalytic subunit of the 5'-prime-AMP-activated protein kinase (AMPK). AMPK is a cellular energy sensor conserved in all eukaryotic cells. The kinase activity of AMPK is activated by the stimuli that increase the cellular AMP/ATP ratio. AMPK regulates the activities of a number of key metabolic enzymes through phosphorylation. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2008]

### VALIDATION IMAGES



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-AMPK alpha 1/PRKAA1 Polyclonal Antibody, Unconjugated(bs-1115R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control (Black line): Mouse spleen(Black). Primary Antibody (green line): Rabbit Anti-AMPK alpha1 antibody (bs-1115R) Dilution: 3 $\mu$ g /10<sup>6</sup> cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647 Dilution: 1 $\mu$ g /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 10,000 events was performed.

Blank control:U937. Primary Antibody (green line): Rabbit Anti-AMPK alpha 1 antibody (bs-1115R) Dilution: 1ug/Test; Secondary Antibody : Goat anti-rabbit IgG-FITC Dilution: 0.5ug/Test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at room temperature.The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

Blank control (black line) :HepG2. Primary Antibody (green line): Rabbit Anti-AMPK alpha 1 antibody (bs-1115R) Dilution:1ug/Test; Secondary Antibody (white blue line) : Goat anti-rabbit IgG-AF488 Dilution: 0.5ug/Test. Isotype control (orange line) : Normal Rabbit IgG Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20°C, The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

## PRODUCT SPECIFIC PUBLICATIONS

[IF=8.886] Bolin Cai. et al. LncEDCH1 improves mitochondrial function to reduce muscle atrophy by interacting with sarcoplasmic/endoplasmic reticulum calcium ATPase 2. Mol Ther-Nucl Acids. 2021 Dec;; WB ; Chicken . 35024244

[IF=7.577] Wei C et al. Nanocolloids in drinking water increase the risk of obesity in mice by modulating gut microbesEnviron Int.2021 Jan;146:106302. WB ; Mouse . 33395945

[IF=7.7] Bing Yang. et al. Hovenia dulcis (Guaizao) polysaccharide ameliorates hyperglycemia through multiple signaling pathways in rats with type 2 diabetes mellitus. INT J BIOL MACROMOL. 2024 Dec;;138338 WB ; Rat . 39638196

[IF=8.2] Yaqi Li. et al. Non-thermal plasma promotes boar sperm quality through increasing AMPK methylation. INT J BIOL MACROMOL. 2024 Feb;257:128768 WB ; Pig . 38096931

[IF=6.551] Tang S et al. High ammonia exposure regulates lipid metabolism in the pig skeletal muscle via mTOR pathway. Sci Total Environ. 2020 Oct 20;740:139917. WB ; Pig . 32563870