bs-5551R **[Primary Antibody]**

PRKAA1 | AMPK alpha-1 (p-T183) Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 5562

Target: PRKAA1 | AMPK alpha-1 (p-T183)

Immunogen: KLH conjugated Synthesised phosphopeptide derived from human AMPK alpha 1 around the phosphorylation site of Thr198(isoform 2)/Thr183(isoform 1): LR(p-T)SC.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

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]

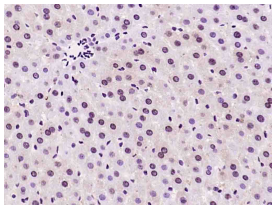
Applications: **IHC-P** (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (1ug/test)

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

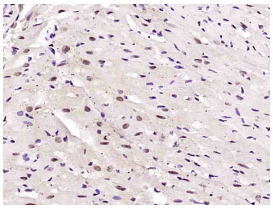
Predicted MW.: 64 kDa

Subcellular Location: Cytoplasm ,Nucleus

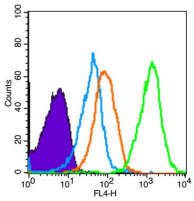
VALIDATION IMAGES



Paraformaldehyde-fixed, paraffin embedded (mouse liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-AMPK alpha-1 (Thr183)) Polyclonal Antibody, Unconjugated (bs-5551R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

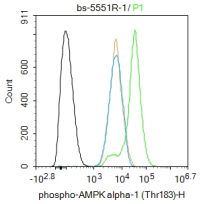


Paraformaldehyde-fixed, paraffin embedded (rat heart); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-AMPK alpha-1 (Thr183)) Polyclonal Antibody, Unconjugated (bs-5551R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Blank control (Black line): Mouse spleen(Black). Primary Antibody (green line): Rabbit Anti-phospho-AMPK alpha-1 (Thr183) antibody (bs-5551R) Dilution: 3µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody (white blue line): Goat anti-rabbit IgG-BF647 Dilution: 1µg /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.

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



Blank control（black line）:HepG2 Primary Antibody (green line): Rabbit Anti-phospho-AMPK alpha-1 (Thr183) antibody (bs-5551R) Dilution:1ug/Test; Secondary Antibody（white blue line）: Goat anti-rabbit IgG-BF488 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.

SELECTED CITATIONS

- **[IF=7.5]** Jing Zhang. et al. Influence of coated cobalamin on lactation performance, nutrient digestion, and proteins related to mammary epithelial cell proliferation and milk fatty acid synthesis in dairy cows. ANIM NUTR. 2025 Aug;: WB ;Bovine. 10.1016/j.aninu.2025.06.006
- **[IF=7.31]** Wei Ruyuan. et al. Silencing TUFM Inhibits Development of Monocrotaline-Induced Pulmonary Hypertension by Regulating Mitochondrial Autophagy via AMPK/mTOR Signal Pathway. OXID MED CELL LONGEV. 2022;2022:4931611 WB ;Rat, Human. 35936222
- **[IF=6.706]** Yu Wang. et al. Seabuckthorn Reverses High-Fat-Diet-Induced Obesity and Enhances Fat Browning via Activation of AMPK/SIRT1 Pathway. NUTRIENTS. 2022 Jan;14(14):2903 WB ;Mouse. 35889860
- **[IF=6.208]** Jing Fan. et al. Syndecan-3 Coregulates Milk Fat Metabolism and Inflammatory Reactions in Bovine Mammary Epithelial Cells through AMPK/SIRT1 Signaling Pathway. INT J MOL SCI. 2023 Jan;24(7):6657 WB ;Bovine. 37047630
- **[IF=5.4]** Chunqiu Fang. et al. Tiaogan Jiejiu Tongluo Formula attenuated alcohol-induced chronic liver injury by regulating lipid metabolism in rats. J ETHNOPHARMACOL. 2023 Dec;317:116838 WB ;Rat. 37355081

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