bs-5575R **[Primary Antibody]**

phospho-AMPK alpha 2 (Ser173) Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 5563 **SWISS:** P54646

Target: AMPK alpha 2 (Ser173)

Immunogen: KLH conjugated Synthesised phosphopeptide derived from human AMPK alpha 2 around the phosphorylation site of Ser173: RT(p-S)CG.

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 is a catalytic subunit of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. AMPK is an important energy-sensing enzyme that monitors cellular energy status. In response to cellular metabolic stresses, AMPK is activated, and thus phosphorylates and inactivates acetyl-CoA carboxylase (ACC) and beta-hydroxy beta-methylglutaryl-CoA reductase (HMGCR), key enzymes involved in regulating de novo biosynthesis of fatty acid and cholesterol. Studies of the mouse counterpart suggest that this catalytic subunit may control whole-body insulin sensitivity and is necessary for maintaining myocardial energy homeostasis during ischemia. [provided by RefSeq, Jul 2008]

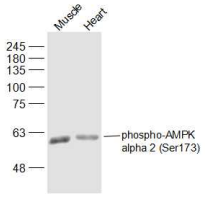
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (2ug/Test)

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

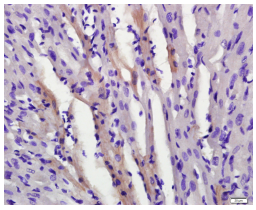
Predicted MW.: 61 kDa

Subcellular Location: Cytoplasm ,Nucleus

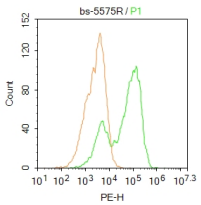
VALIDATION IMAGES



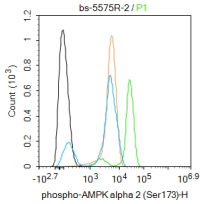
Sample: Muscle (Mouse) Lysate at 40 ug Heart (Mouse) Lysate at 40 ug Primary: Anti-phospho-AMPK alpha 2 (Ser173) (bs-5575R) at 1/500 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 61 kD Observed band size: 61 kD



Paraformaldehyde-fixed, paraffin embedded (rat heart tissue); 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 (p-AMPK alpha 2) Polyclonal Antibody, Unconjugated (bs-5575R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Blank control: HepG2. Primary Antibody (green line): Rabbit Anti-phospho-AMPK alpha 2 (Ser173) antibody (bs-5575R) Dilution: 1µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-PE 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-20°C. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at 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）:Hela. Primary Antibody (green line): Rabbit Anti-phospho-AMPK alpha 2 (Ser173) antibody (bs-5575R) Dilution:2ug/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.

SELECTED CITATIONS

- **[IF=5]** Feng Gao. et al. Catalpol ameliorates LPS-induced inflammatory response by activating AMPK/mTOR signaling pathway in rat intestinal epithelial cells. EUR J PHARMACOL. 2023 Dec;960:176125 WB,IF ;Rat. 37890606
- **[IF=4.679]** Ma Y et al. IRE1 and CaMKKβ pathways to reveal the mechanism involved in microcystin-LR-induced autophagy in Mouseovarian cellsFood Chem Toxicol.2021 Jan;147:111911. WB ;Mouse. 33290805
- **[IF=3.585]** Liu T et al. MS-275 combined with cisplatin exerts synergistic antitumor effects in human esophageal squamous cell carcinoma cells. Toxicol Appl Pharmacol. 2020 May 15;395:114971. WB ;Human. 32217144
- **[IF=4.225]** Yang T et al. Dexmedetomidine Enhances Autophagy via α2-AR/AMPK/mTOR Pathway to Inhibit the Activation of NLRP3 Inflammasome and Subsequently Alleviates Lipopolysaccharide-Induced Acute Kidney Injury. Front Pharmacol. 2020 Jun 24;11:790. WB ;Rat. 32670056
- **[IF=4.014]** Jian Chen. et al. Astragalus polysaccharide alleviates transport stress-induced heart injury in newly hatched chicks via ERS-UPR-Autophagy dependent pathway. POULTRY SCIENCE. 2022 Jun;:102030 WB ;Chicken. 10.1016/j.psj.2022.102030