bs-2771R **[Primary Antibody]**

AMPK alpha 2 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 5563 **SWISS:** P54646

Target: AMPK alpha 2

Immunogen: KLH conjugated synthetic peptide derived from human AMPK alpha 2: 351-450/552.

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]

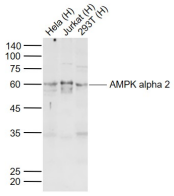
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

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

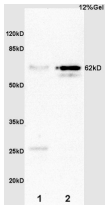
Predicted MW.: 62 kDa

Subcellular Location: Cytoplasm ,Nucleus

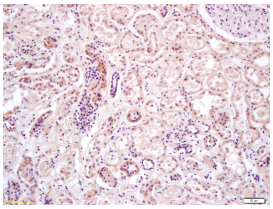
VALIDATION IMAGES



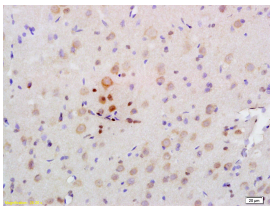
Sample: Lane 1: Hela (Human) Cell Lysate at 30 ug Lane 2: Jurkat (Human) Cell Lysate at 30 ug Lane 3: 293T (Human) Cell Lysate at 30 ug Primary: Anti-AMPK alpha 2 (bs-2771R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 62 kD Observed band size: 60 kD



Sample: Lane1: Brain(Rat) Lysate at 30 ug Lane2: Heart(Rat) Lysate at 30 ug Primary: Anti-PRKAA2/AMPK alpha 2 (bs-2771R) at 1:200 dilution; Secondary: HRP conjugated Goat Anti-Rabbit IgG(bs-0295G-HRP) at 1: 3000 dilution; Predicted band size : 62kD Observed band size : 62kD



Tissue/cell: human kidney 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-PRKAA2/AMPK alpha 2 Polyclonal Antibody, Unconjugated(bs-2771R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



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-PRKAA2/AMPK alpha 2 Polyclonal Antibody, Unconjugated(bs-2771R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

SELECTED CITATIONS

- **[IF=8.073]** Shuang-Feng Xu. et al. Astrocyte-specific loss of lactoferrin influences neuronal structure and function by interfering with cholesterol synthesis. GLIA. 2022 Aug;: WB ;Mouse. 35946355
- **[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=4.831]** Zhang Q et al. CTRP13 attenuates the expression of LN and CAV-1 Induced by high glucose via CaMKKβ/AMPK pathway in rLSECs. Aging (Albany NY). 2020 Jun 17;12(12):11485-11499. WB ;Rat. 32554851
- **[IF=3.5]** Xin Tong. et al. Astrocyte lactoferrin deficiency affects the construction and function of spinal neurons by regulating cholesterol metabolism. EXP CELL RES. 2025 Jun;449:114595 WB ;Mouse. 40334811
- **[IF=3.8]** Weipeng Zhang. et al. Cross-generational effects of dietary sea buckthorn on non-alcoholic fatty liver disease in offspring of obese female mice. J FUNCT FOODS. 2024 Oct;121:106398 WB ;Mouse. 10.1016/j.jff.2024.106398