bsm-33338M **[Primary Antibody]**

AMPK alpha-1 Mouse mAb

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DATASHEET

Host: Mouse
Isotype: IgG1
Clonality: Monoclonal
CloneNo.: 11G3
GeneID: 5562
Target: AMPK alpha-1
Purification: affinity purified by Protein G
Concentration: 1mg/ml
Storage: Size : 50ul/100ul/200ul
0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Size : 200ug (PBS only)
0.01M PBS
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]

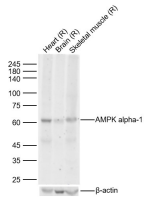
Applications: **WB** (1:500-1000)
IHC-P (1:200-800)
IHC-F (1:200-500)
IF (1:200-500)

Reactivity: Human, Mouse, Rat

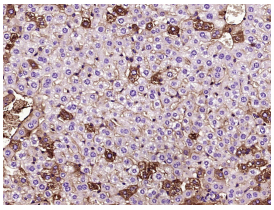
Predicted MW.: 64 kDa

Subcellular Location: Cytoplasm ,Nucleus

VALIDATION IMAGES



Sample: Lane 1: Rat Heart Lysates Lane 2: Rat Brain Lysates Lane 3: Rat Skeletal muscle Lysates Primary: Anti-AMPK alpha-1 (bsm-33338M) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Mouse IgG at 1/20000 dilution Predicted band size: 64kDa Observed band size: 64kDa



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 (AMPK alpha-1) Monoclonal Antibody, Unconjugated (bsm-33338M) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Mouse) (sp-0024) instructionsand DAB staining.

SELECTED CITATIONS

- **[IF=11.413]** Fengfeng Li. et al. Anthelmintics nitazoxanide protects against experimental hyperlipidemia and hepatic steatosis in hamsters and mice. Acta Pharm Sin B. 2021 Sep;: WB ;Human. 10.1016/j.apsb.2021.09.009
- **[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=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