Data Sheet (Cat.No.TMAB-00116)

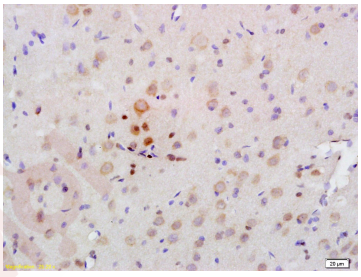
Anti-AMPK alpha 2 Polyclonal Antibody

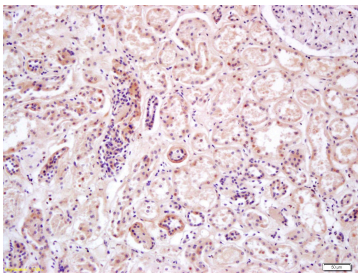
Product Details

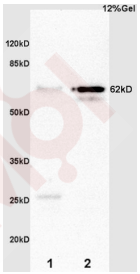
Ig Type:	IgG
Reactivity:	Human,Rat (predicted:Mouse,Dog,Pig,Cow,Rabbit,Sheep)
Molecular Weight:	Theoretical: 62 kDa. Actual: 60 kDa.
Purification:	Protein A purified

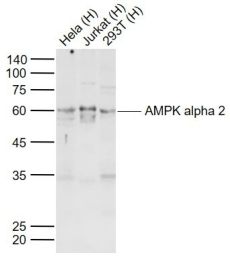
Applications

Verified Activity:	1. Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH6.0), Boiling bathing for 15 min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Incubation: Anti-PRKAA2/AMPK alpha 2 Polyclonal Antibody, Unconjugated (TMAB-00116) 1: 200, overnight at 4°C, followed by conjugation to the secondary antibody and DAb staining. 2. Tissue/cell: human kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH6.0), Boiling bathing for 15 min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Incubation: Anti-PRKAA2/AMPK alpha 2 Polyclonal Antibody, Unconjugated (TMAB-00116) 1: 200, overnight at 4°C, followed by conjugation to the secondary antibody and DAb staining. 3. Sample: Lane1: Brain (Rat) Lysate at 30 µg Lane2: Heart (Rat) Lysate at 30 µg Primary: Anti-PRKAA2/AMPK alpha 2 (TMAB-00116) at 1:200 dilution; Secondary: HRP conjugated Goat Anti-Rabbit Igg (secondary antibody) at 1: 3000 dilution; Predicted band size: 62 kDa Observed band size: 62 kDa 4. Sample: Lane 1: Hela (Human) Cell Lysate at 30 µg Lane 2: Jurkat (Human) Cell Lysate at 30 µg Lane 3: 293T (Human) Cell Lysate at 30 µg Primary: Anti-AMPK alpha 2 (TMAB-00116) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 62 kDa Observed band size: 60 kDa









Application: IF,IHC-Fr,IHC-P,WB

Recommended: WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: KLH conjugated synthetic peptide: human AMPK alpha 2

Antigen Species: Human

Gene ID: 5563

Uniprot ID: P54646

Synonyms: 5'-AMP-activated protein kinase catalytic subunit alpha-2;AMPKα 2;AMPK a2;AMPK α2;AMPK alpha 2 chain;Hydroxymethylglutaryl-CoA reductase kinase;PRKAA;AMPK 2;ACACA kinase; Protein kinase AMP activated alpha 2 catalytic subunit;HMGCR kinase;AMPK subunit alpha-2; AAPK2;PRKAA2;Acetyl-CoA carboxylase kinase;AMPK2;AMPK α 2;AMPKa2;AMPKalpha2;Protein kinase AMP activated catalytic subunit alpha 2;AMPKα2

Biology Area: Integration of energy metabolism,Response to hypoxia,Metabolism,Integration of energy,Fatty acids,Hypoxia,Fatty acid oxidation,Metabolism,Other Kinases

Research 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]

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