Datasheet for ABIN2855639

anti-PRKAA2 antibody (Center)

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Overview

Quantity:	100 µL
Target:	PRKAA2
Binding Specificity:	Center
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This PRKAA2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunoprecipitation (IP), Immunocytochemistry (ICC)

Product Details

Immunogen:	Recombinant protein encompassing a sequence within the center region of human AMPK alpha 2. The exact sequence is proprietary.
Isotype:	IgG
Cross-Reactivity:	Chicken, Pig (Porcine), Rat (Rattus), Cow (Bovine), Xenopus tropicalis
Cross-Reactivity (Details):	Chicken (96 %), Pig (99 %), Rat (98 %), Bovine (99 %), Xenopus tropicalis (96 %)
Characteristics:	Rabbit Polyclonal antibody to AMPK alpha 2 (protein kinase, AMP-activated, alpha 2 catalytic subunit) AMPK alpha 2 antibody
Purification:	Purified by antigen-affinity chromatography.

Target Details

Target:	PRKAA2
Alternative Name:	AMPK alpha 2 (PRKAA2 Products)
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.
Molecular Weight:	62 kDa
Gene ID:	5563
Pathways:	AMPK Signaling, Carbohydrate Homeostasis, Chromatin Binding, Regulation of Carbohydrate Metabolic Process, Warburg Effect

Application Details

Application Notes:	Suggested dilution Reference ICC/IF 1:100-1:1000* IHC (Formalin-fixed paraffin-embedded sections) 1:100-1:1000* Immunoprecipitation 1:100-1:500* Western blot 1:500-1:3000* Not tested in other applications. *Optimal dilutions/concentrations should be determined by the researcher.Suggested dilutionReferenceICC/IF1:100-1:1000* IHC (Formalin-fixed paraffin-embedded sections)1:100-1:1000* Immunoprecipitation1:100-1:500* Western blot1:500-1:3000*
Comment:	Positive Control: A431 , HeLa , A375 , NIH-3T3
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.55 mg/mL
Buffer:	0.1M Tris, 0.1M Glycine, 10 % Glycerol (pH 7). 0.01 % Thimerosal was added as a preservative.

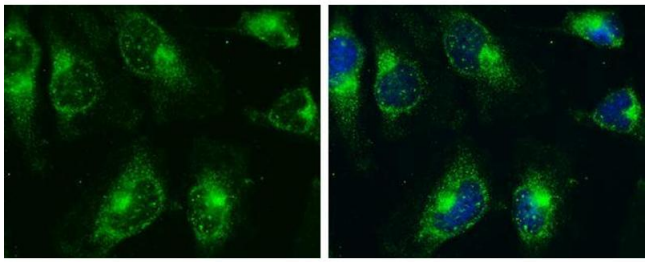
Handling

Preservative:	Thimerosal (Merthiolate)
Precaution of Use:	This product contains Thimerosal (Merthiolate): a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Keep as concentrated solution. Aliquot and store at -20°C or below. Avoid multiple freeze-thaw cycles.

Publications

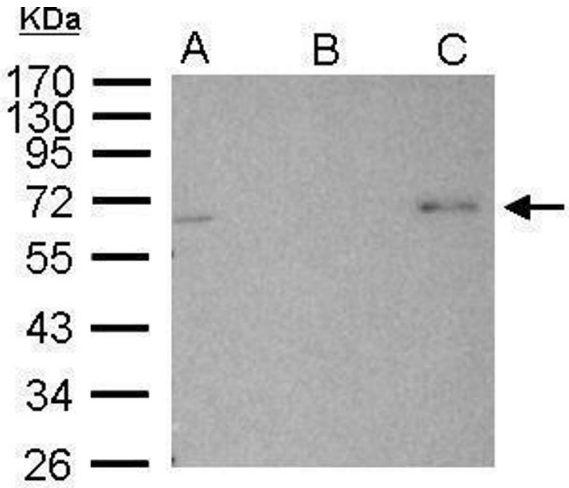
Product cited in:	Alfonso-Pérez, Hayward, Holder, Gruneberg, Barr: "MAD1-dependent recruitment of CDK1-CCNB1 to kinetochores promotes spindle checkpoint signaling." in: **The Journal of cell biology**, Vol. 218, Issue 4, pp. 1108-1117, (2020) (PubMed).

Validation report #104394 for Cleavage Under Targets and Release Using Nuclease (CUT&RUN)



Immunofluorescence

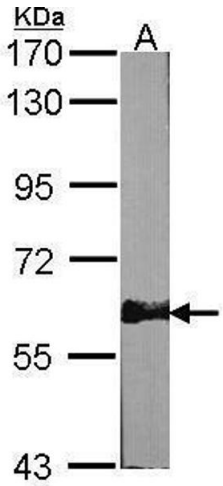
Image 1. ICC/IF Image AMPK alpha 2 antibody detects AMPK alpha 2 protein at cytoplasm and nucleus by immunofluorescent analysis. Sample: HeLa (left) and A431 (right) cells were fixed in 4% paraformaldehyde at RT for 15 min. Green: AMPK alpha 2 protein stained by AMPK alpha 2 antibody , diluted at 1:400. Blue: Hoechst 33342 staining.



Immunoprecipitation

Image 2. IP Image AMPK alpha 2 antibody immunoprecipitates AMPK alpha 2 protein in IP experiments. IP Sample: 1000 µg 293T whole cell lysate/extract A. 30 µg 293T whole cell lysate/extract B. Control with 2.5 µg of preimmune rabbit IgG C. Immunoprecipitation of AMPK alpha 2 protein by 2.5 µg of AMPK alpha 2 antibody , 10% SDS-PAGE The immunoprecipitated AMPK alpha 2 protein was detected by

AMPK alpha 2 antibody , diluted at 1:1000. EasyBlot anti-rabbit IgG was used as a secondary reagent.



Western Blotting

Image 3. WB Image Sample (30 ug of whole cell lysate) A:NIH-3T3 7.5% SDS PAGE antibody diluted at 1:1000

Please check the product details page for more images. Overall 5 images are available for ABIN2855639.