

Product datasheet for **TA308756**

AMPK alpha 2 (PRKAA2) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, IP, WB
Recommended Dilution:	ICC/IF:1:100-1:1000; IHC:1:100-1:1000; WB:1:500-1:3000
Reactivity:	Human, Mouse (Predicted: Chicken, Pig, Rat, Bovine, X. tropicalis)
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant fragment corresponding to a region within amino acids 29 and 510 of AMPK alpha 2 (Uniprot ID#P54646)
Formulation:	1XPBS, 20% Glycerol (pH7). 0.025% ProClin 300 was added as a preservative.
Concentration:	lot specific
Purification:	Purified by antigen-affinity chromatography.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	62 kDa
Gene Name:	protein kinase AMP-activated catalytic subunit alpha 2
Database Link:	NP_006243 Entrez Gene 78975 RatEntrez Gene 108079 MouseEntrez Gene 5563 Human P54646



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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]

Synonyms:

AMPK; AMPK2; AMPKa2; PRKAA

Note:

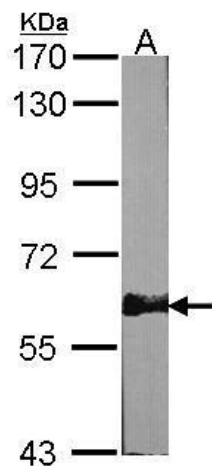
Seq homology of immunogen across species: Chicken (96%), Pig (99%), Rat (98%), Bovine (99%), Xenopus tropicalis (96%)

Protein Families:

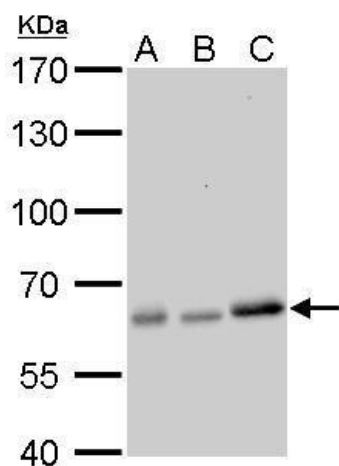
Druggable Genome, Protein Kinase

Protein Pathways:

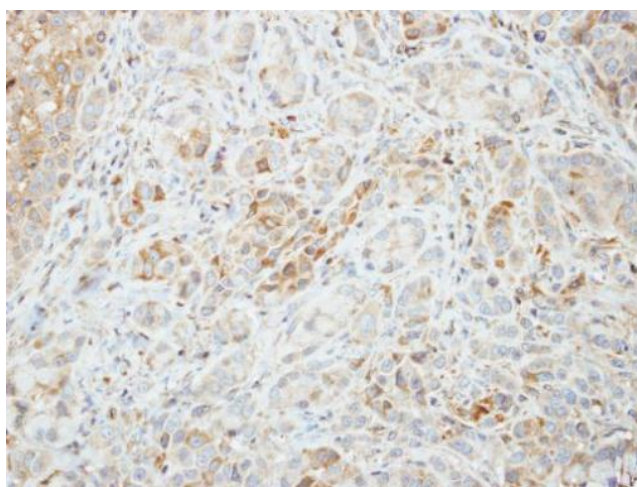
Adipocytokine signaling pathway, Hypertrophic cardiomyopathy (HCM), Insulin signaling pathway, mTOR signaling pathway, Regulation of autophagy

Product images:

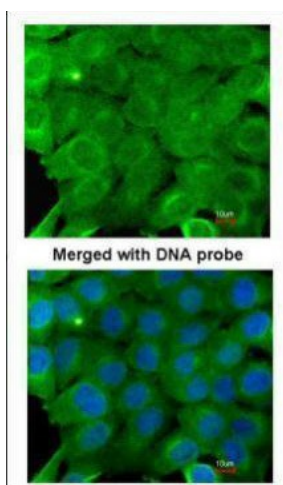
Sample (30 ug of whole cell lysate). A:NIH-3T3.
7.5% SDS PAGE. TA308756 diluted at 1:1000.



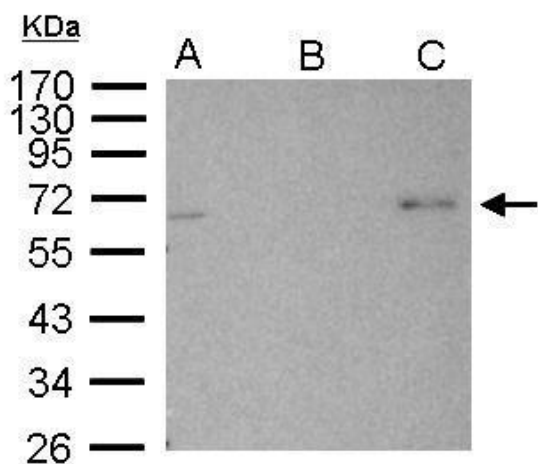
AMPK alpha 2 antibody detects PRKAA2 protein by Western blot analysis. A. 30 ug A431 whole cell lysate/extract. B. 30 ug HeLa whole cell lysate/extract. C. 30 ug A375 whole cell lysate/extract. 7.5 % SDS-PAGE. AMPK alpha 2 antibody (TA308756) dilution: 1:



Immunohistochemical analysis of paraffin-embedded A549 xenograft, using AMPK alpha 2 (TA308756) antibody at 1:500 dilution.



Immunofluorescence analysis of paraformaldehyde-fixed A431, using AMPK alpha 2 (TA308756) antibody at 1:200 dilution.



AMPK alpha 2 antibody immunoprecipitates AMPK alpha 2 protein in IP experiments. IP Sample: 1000 ug 293T whole cell lysate/extract A. 30 ug 293T whole cell lysate/extract B. Control with 2.5 ug of preimmune rabbit IgG C. Immunoprecipitation of AMPK alpha