

## Product datasheet for **TA380334**

### AMPK alpha 2 (PRKAA2) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, WB
Recommended Dilution:	WB,1:500 - 1:2000 IF,1:50 - 1:200
Reactivity:	Human, Mouse, Rat
Modifications:	Unmodified
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant fusion protein containing a sequence corresponding to amino acids 343-552 of human AMPK $\alpha$ 2 (NP_006243.2).
Formulation:	Buffer: PBS with 0.02% sodium azide,50% glycerol,pH7.3.
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C. Avoid freeze / thaw cycles.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	62kDa
Gene Name:	protein kinase AMP-activated catalytic subunit alpha 2
Database Link:	<a href="#">Entrez Gene 5563 Human P54646</a>



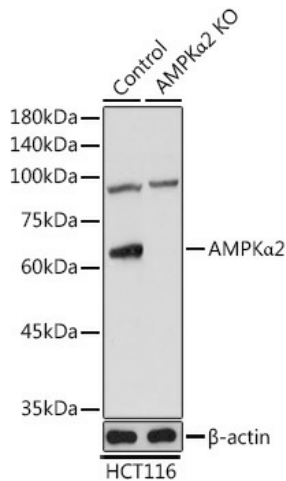
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**Background:**

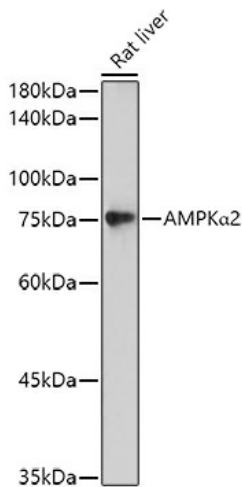
The protein encoded by this gene is a catalytic subunit of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. AMPK is an important energy-sensing enzyme that monitors cellular energy status. In response 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.

**Synonyms:**

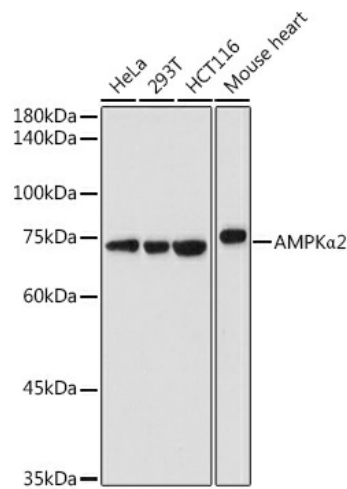
AMPK; AMPK2; PRKAA

**Product images:**


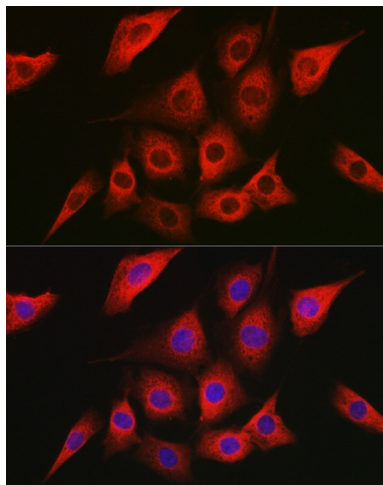
Western blot analysis of extracts from normal (control) and AMPK $\alpha$ 2 Rabbit pAb knockout (KO) HCT116 cells, using AMPK $\alpha$ 2 Rabbit pAb antibody (TA380334) at 1:1000 dilution. | Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. | Lysates/proteins: 25ug per lane. | Blocking buffer: 3% nonfat dry milk in TBST. | Detection: ECL Basic Kit . | Exposure time: 60s.



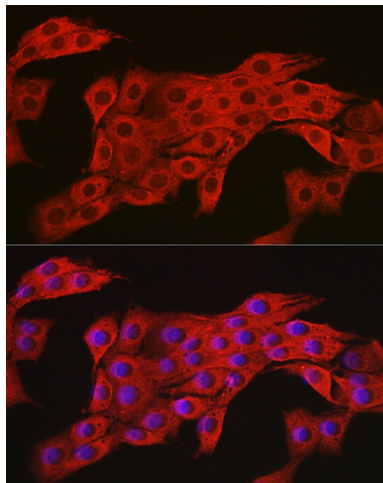
Western blot analysis of extracts of Rat liver, using AMPK $\alpha$ 2 antibody (TA380334) at 1:500 dilution. | Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. | Lysates/proteins: 25ug per lane. | Blocking buffer: 3% nonfat dry milk in TBST. | Detection: ECL Basic Kit . | Exposure time: 180s.



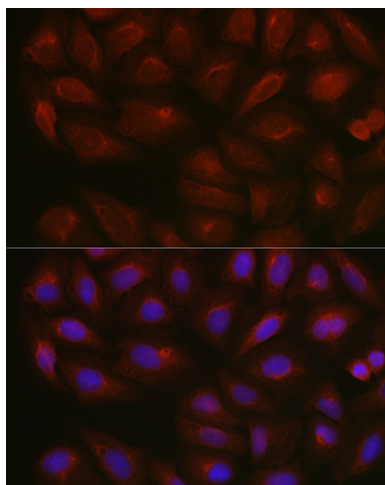
Western blot analysis of extracts of various cell lines, using AMPK $\alpha$ 2 antibody (TA380334) at 1:500 dilution. | Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. | Lysates/proteins: 25ug per lane. | Blocking buffer: 3% nonfat dry milk in TBST. | Detection: ECL Basic Kit . | Exposure time: 30s.



Immunofluorescence analysis of NIH/3T3 cells using [KO Validated] AMPK $\alpha$ 2 Rabbit pAb (TA380334) at dilution of 1:150 (40x lens). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of PC-12 cells using [KO Validated] AMPK $\alpha$ 2 Rabbit pAb (TA380334) at dilution of 1:150 (40x lens). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of U2OS cells using [KO Validated] AMPK $\alpha$ 2 Rabbit pAb (TA380334) at dilution of 1:150 (40x lens). Blue: DAPI for nuclear staining.