

## Product datasheet for **TA350851**

### AMPK alpha 1 (PRKAA1) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 200-1000 WB positive control: NIH/3T3 cells IHC: 100-300 Positive control: Human ovarian cancer Predicted cell location: Cytoplasm
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide of human PRKAA1
Formulation:	pH7.4 PBS, 0.05% NaN <sub>3</sub> , 40% Glycerol
Concentration:	lot specific
Purification:	Antigen affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	64 kDa
Gene Name:	protein kinase AMP-activated catalytic subunit alpha 1
Database Link:	<a href="#">NP_996790</a> <a href="#">Entrez Gene 65248 Rat</a> <a href="#">Entrez Gene 105787 Mouse</a> <a href="#">Entrez Gene 5562 Human</a> <a href="#">Q13131</a>



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**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.

**Synonyms:**

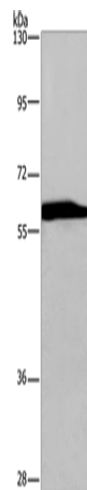
AMPK; AMPKa1

**Protein Families:**

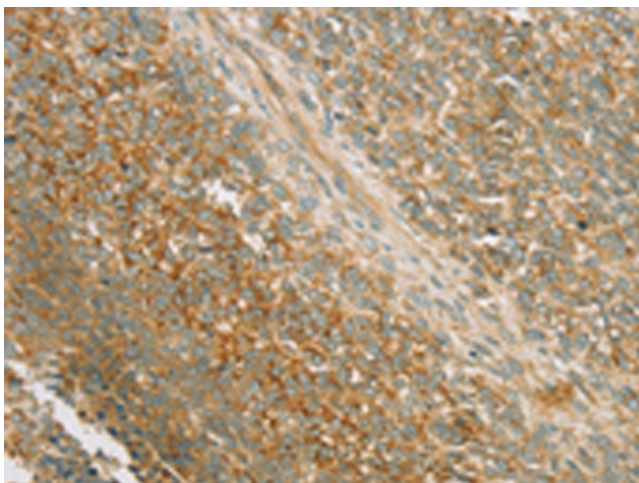
Druggable Genome, Protein Kinase

**Protein Pathways:**

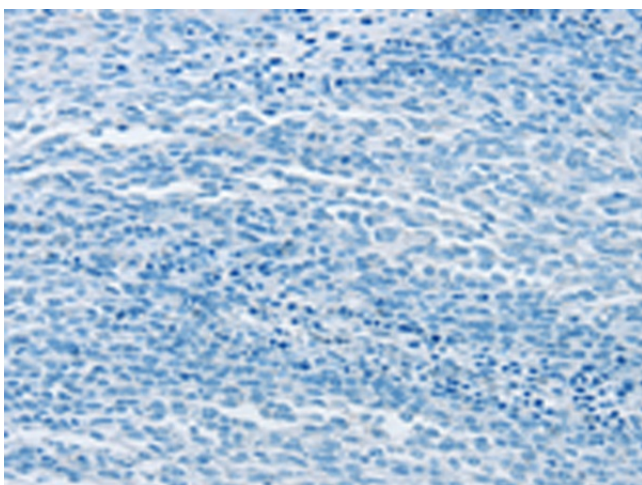
Adipocytokine signaling pathway, Hypertrophic cardiomyopathy (HCM), Insulin signaling pathway, mTOR signaling pathway, Regulation of autophagy

**Product images:**


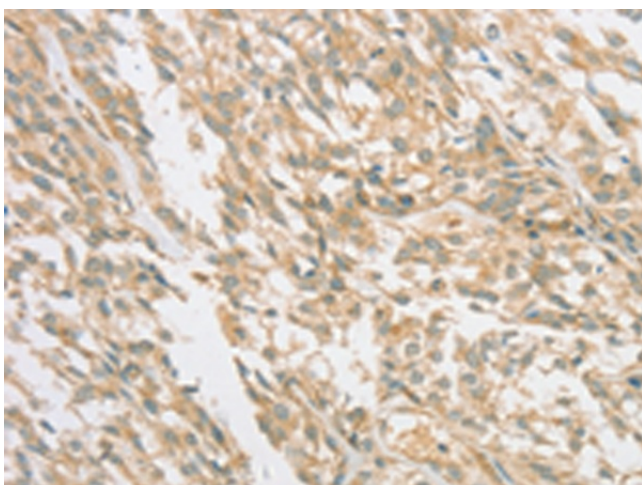
Gel: 6%SDS-PAGE  
 Lysate: 40 µg  
 Lane: NIH/3T3 cells  
 Primary antibody: TA350851 (PRKAA1 Antibody) at dilution 1/200  
 Secondary antibody: Goat anti rabbit IgG at 1/8000 dilution  
 Exposure time: 1 minute



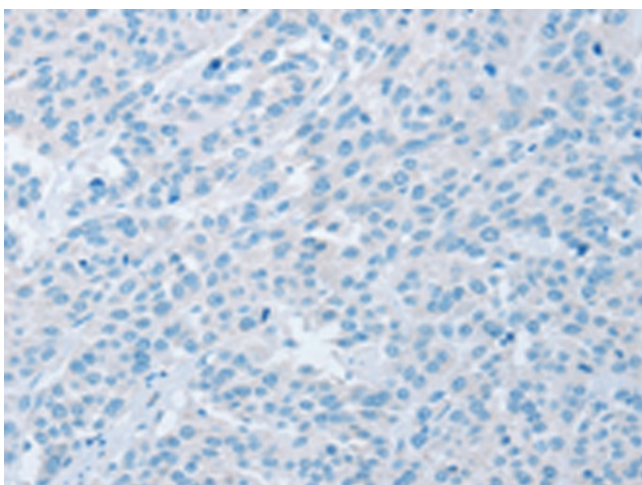
Immunohistochemistry of paraffin-embedded Human ovarian cancer tissue using TA350851 (PRKAA1 Antibody) at dilution 1/80 (Original magnification: ×200)



Immunohistochemistry of paraffin-embedded Human ovarian cancer tissue using TA350851 (PRKAA1 Antibody) at dilution 1/80, treated with synthetic peptide. (Original magnification:  $\times 200$ )



Immunohistochemistry of paraffin-embedded Human esophagus cancer tissue using TA350851 (PRKAA1 Antibody) at dilution 1/80 (Original magnification:  $\times 200$ )



Immunohistochemistry of paraffin-embedded Human esophagus cancer tissue using TA350851 (PRKAA1 Antibody) at dilution 1/80, treated with synthetic peptide. (Original magnification:  $\times 200$ )