

Product datasheet for **TA322520**

AMPK alpha 2 (PRKAA2) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 200-1000 WB positive control: Raji cell and Mouse heart tissue lysates IHC: 25-100 Positive control: Human liver cancer Predicted cell location: Cytoplasm
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Fusion protein corresponding to a region derived from 16-268 amino acids of human protein kinase, AMP-activated, alpha 2 catalytic subunit
Formulation:	PBS pH7.3, 0.05% NaN ₃ , 50% 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.
Gene Name:	protein kinase AMP-activated catalytic subunit alpha 2
Database Link:	NP_006243 Entrez Gene 78975 Rat Entrez Gene 108079 Mouse Entrez 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.

Synonyms:

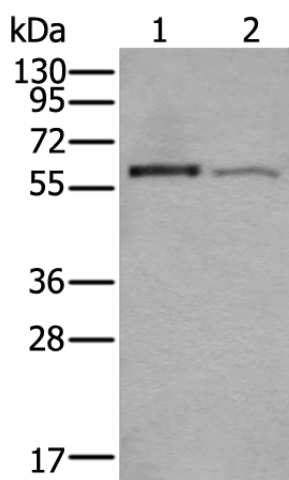
AMPK; AMPK2; AMPKa2; PRKAA

Protein Families:

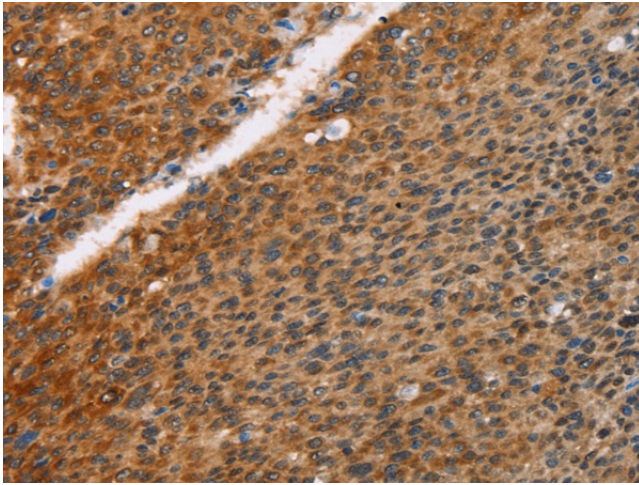
Druggable Genome, Protein Kinase

Protein Pathways:

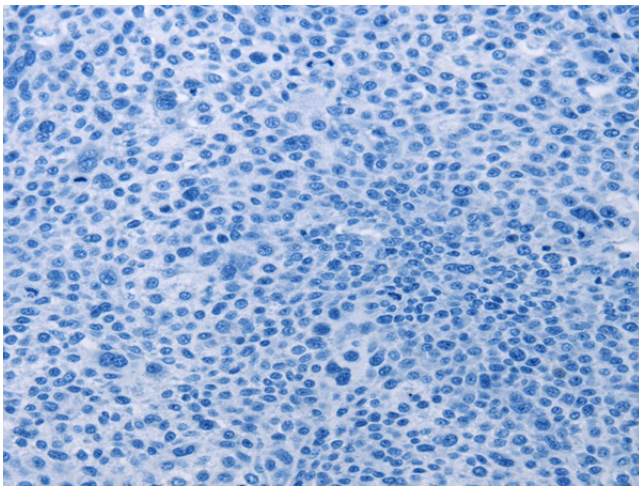
Adipocytokine signaling pathway, Hypertrophic cardiomyopathy (HCM), Insulin signaling pathway, mTOR signaling pathway, Regulation of autophagy

Product images:

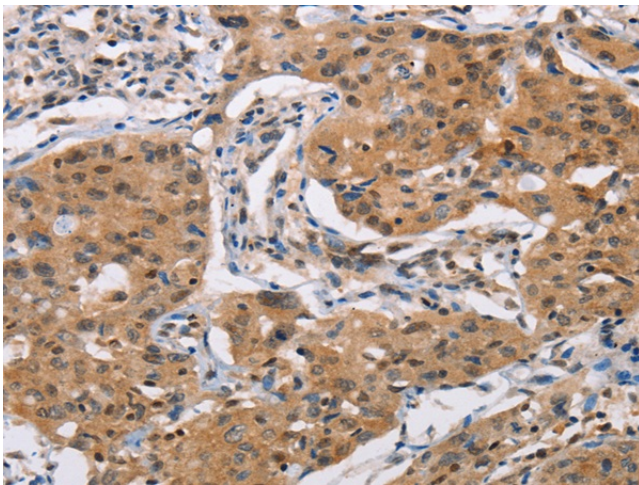
Gel: 8%SDS-PAGE
Lysate: 40 µg
Lane 1-2: Raji cell and Mouse heart tissue lysates
Primary antibody: TA322520 (PRKAA2 Antibody) at dilution 1/400
Secondary antibody: Goat anti rabbit IgG at 1/8000 dilution
Exposure time: 2 minutes



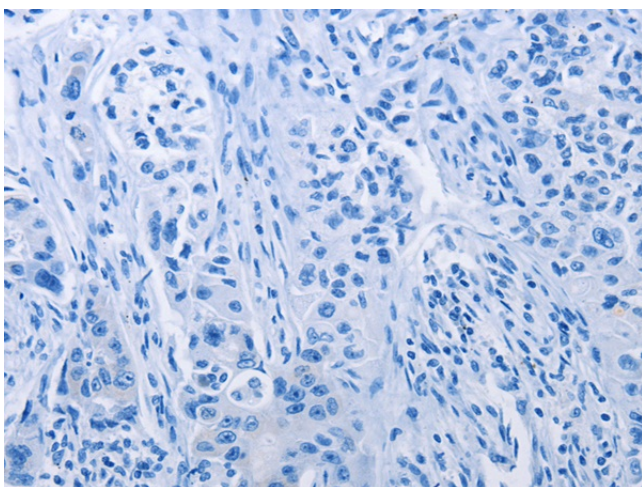
Immunohistochemistry of paraffin-embedded Human liver cancer tissue using TA322520 (PRKAA2 Antibody) at dilution 1/25 (Original magnification: $\times 200$)



Immunohistochemistry of paraffin-embedded Human liver cancer tissue using TA322520 (PRKAA2 Antibody) at dilution 1/25, treated with fusion protein. (Original magnification: $\times 200$)



Immunohistochemistry of paraffin-embedded Human lung cancer tissue using TA322520 (PRKAA2 Antibody) at dilution 1/25 (Original magnification: $\times 200$)



Immunohistochemistry of paraffin-embedded Human lung cancer tissue using TA322520 (PRKAA2 Antibody) at dilution 1/25, treated with fusion protein. (Original magnification: ×200)