

## Product datasheet for **AP02659PU-S**

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

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC
Recommended Dilution:	Immunohistochemistry on Paraffin Sections: 1/50-1/100.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	The antiserum was produced against synthesized non-phosphopeptide derived from human AMPK1/AMPK2 around the phosphorylation site of serine 485/491 (S-G-Sp-V-S).
Specificity:	This antibody detects endogenous levels of total AMPK1 protein.
Formulation:	PBS (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150 mM NaCl, 0.02% Sodium Azide and 50% Glycerol. State: Aff - Purified State: Liquid purified Ig fraction.
Concentration:	lot specific
Purification:	Immunoaffinity Chromatography using epitope-specific immunogen.
Conjugation:	Unconjugated
Storage:	Store the antibody (in aliquots) at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
Gene Name:	protein kinase AMP-activated catalytic subunit alpha 1
Database Link:	<a href="#">Entrez Gene 65248 Rat</a> <a href="#">Entrez Gene 105787 Mouse</a> <a href="#">Entrez Gene 5562 Human Q13131</a>



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**Background:**

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the  $\gamma$  phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains.

**Synonyms:**

AMPK1, AMPK alpha-1 chain

**Protein Families:**

Druggable Genome, Protein Kinase

**Protein Pathways:**

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

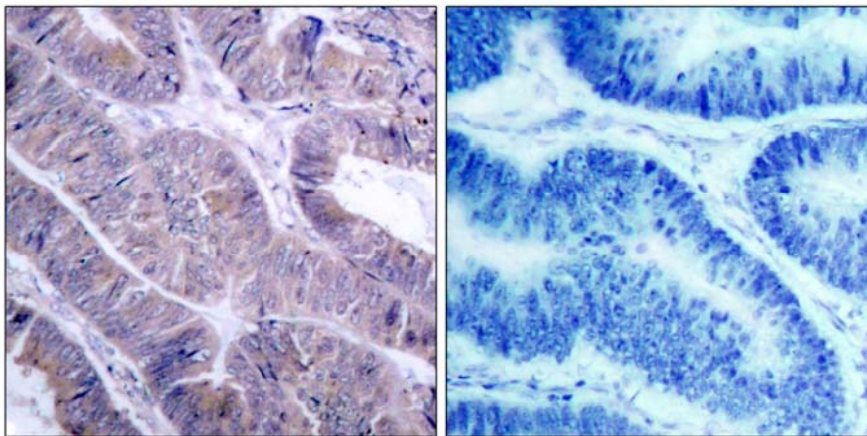
**Product images:**

Figure 1. Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue using AMPK1 antibody.