

Product datasheet for **AP02451PU-N**

AMPK alpha 1 (PRKAA1) pSer487 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	Western Blot: 1/500-1/1000. Immunofluorescence: 1/100-1/200. Immunohistochemistry on Paraffin-Embedded Sections 1/50-1/100.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	The antiserum was produced against synthesized phosphopeptide derived from human AMPK alpha-1 around the phosphorylation site of serine 487 (S-G- SP-V-S).
Specificity:	This antibody detects endogenous levels of AMPK1 only when phosphorylated at Serine 487
Formulation:	PBS (without Mg ²⁺ and Ca ²⁺), 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:	Affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.
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:	Entrez Gene 65248 Rat Entrez Gene 105787 Mouse Entrez Gene 5562 Human Q13131



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Background:

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the γ 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

Note:

Molecular Weight: 63 kDa

Protein Families:

Druggable Genome, Protein Kinase

Protein Pathways:

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

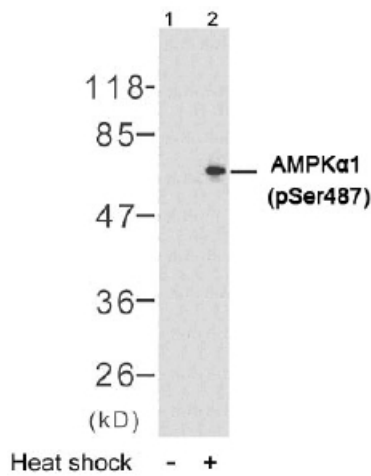
Product images:


Figure 2. Western blot analysis of extract from HeLa cells untreated or treated with heat shock (30 min), using AMPK alpha-1 pSer487 Antibody.

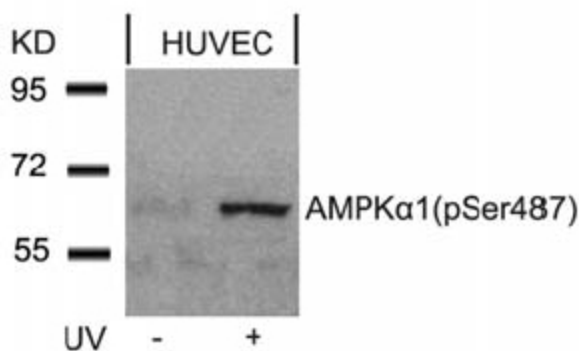
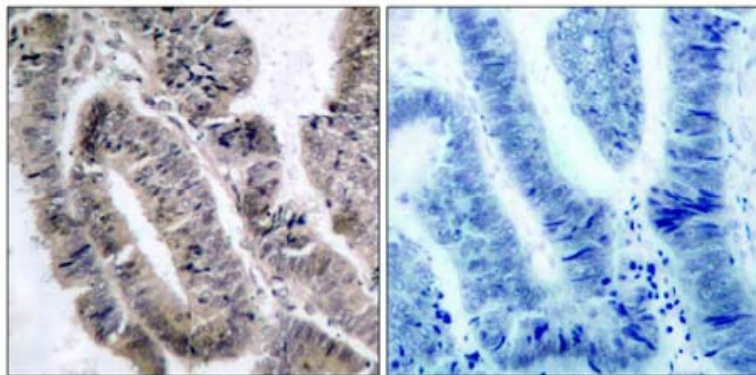


Figure 4. Western blot analysis of extract from HUVEC cells untreated or treated with UV using AMPK alpha-1 pSer487 Antibody.



P-Peptide

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Figure 1. Immunohistochemical analysis of paraffin- embedded human colon carcinoma tissue, using AMPK1 pSer487 Antibody.

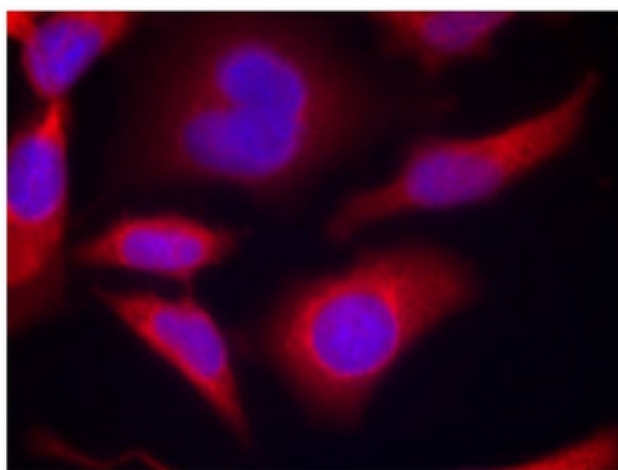


Figure 3. Immunofluorescence staining of methanol-fixed HeLa cells using AMPK alpha-1 pSer487 Antibody (Red).