

## Phospho-AMPK alpha 2(S345) Rabbit mAb

Catalog No: #13424

Package Size: #13424-1 50ul #13424-2 100ul

Orders: [order@signalwayantibody.com](mailto:order@signalwayantibody.com)Support: [tech@signalwayantibody.com](mailto:tech@signalwayantibody.com)

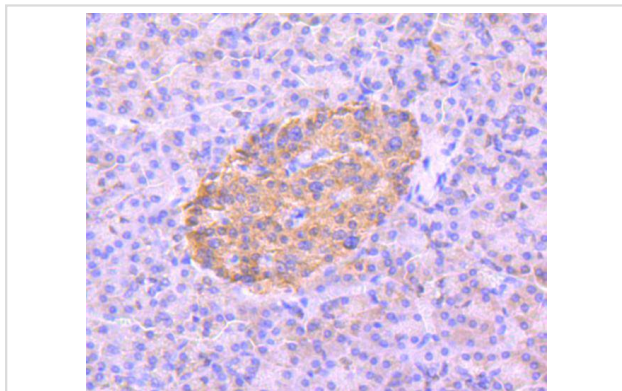
## Description

Product Name	Phospho-AMPK alpha 2(S345) Rabbit mAb
Host Species	Rabbit
Clonality	Monoclonal
Clone No.	JJ08-19
Purification	ProA affinity purified
Applications	WB, ICC/IF, IHC
Species Reactivity	Hu, Ms, Rt
Immunogen Description	Synthetic phospho-peptide corresponding to residues surrounding Ser345 of human AMPK alpha 2.
Other Names	5'-AMP-activated protein kinase catalytic subunit alpha-2 antibody AAMPK2_HUMAN antibody ACACA kinase antibody Acetyl-CoA carboxylase kinase antibody AMPK alpha 2 chain antibody AMPK subunit alpha-2 antibody AMPK2 antibody AMPKa2 antibody AMPKalpha2 antibody HMGCR kinase antibody Hydroxymethylglutaryl-CoA reductase kinase antibody PRKAA antibody PRKAA2 antibody Protein kinase AMP activated alpha 2 catalytic subunit antibody Protein kinase AMP activated catalytic subunit alpha 2 antibody
Accession No.	Swiss-Prot#:P54646
Uniprot	P54646
GeneID	5563;
Calculated MW	62 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

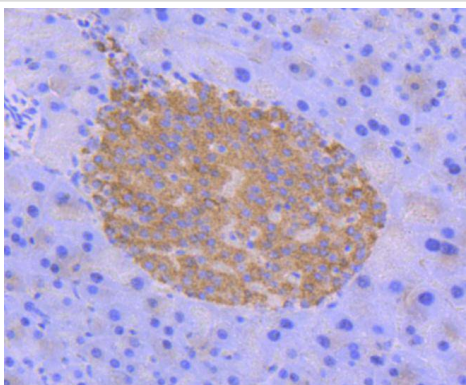
## Application Details

WB: 1:500-1:1,000 IHC: 1:50-1:100 ICC: 1:50-1:200

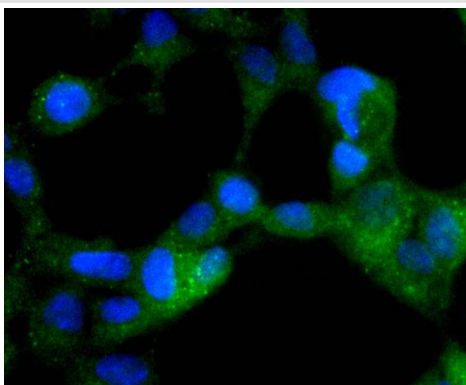
## Images



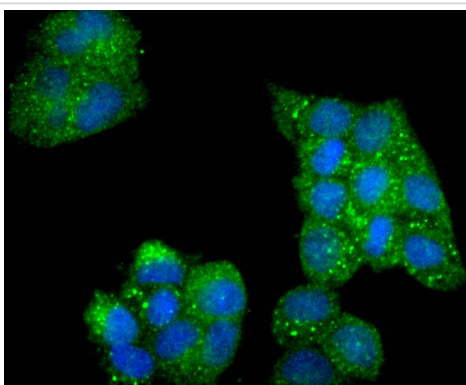
Immunohistochemical analysis of paraffin-embedded human pancreas tissue using anti-Phospho-AMPK alpha 2(S345) antibody. Counter stained with hematoxylin.



Immunohistochemical analysis of paraffin-embedded mouse pancreas tissue using anti-Phospho-AMPK alpha 2(S345) antibody. Counter stained with hematoxylin.



ICC staining Phospho-AMPK alpha 2(S345) in 293 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining Phospho-AMPK alpha 2(S345) in HeLa cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

## Background

Five-prime-AMP-activated protein kinase, known as AMPK, is a heterotrimeric complex that comprises of a catalytic  $\alpha$  subunit, and regulatory  $\beta$  and  $\gamma$ . AMPK protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. AMPK is activated by high AMP and low ATP via a mechanism involving allosteric regulation, promotion of phosphorylation by an upstream protein kinase known as AMPK kinase (AMPKK), and inhibition of dephosphorylation. Activated AMPK can phosphorylate and regulate in vivo hydroxymethylglutaryl-CoA reductase and acetyl-CoA carboxylase, which are key regulatory enzymes of sterol synthesis and fatty acid synthesis, respectively. The human AMPK $\alpha$ 1 gene maps to chromosome 5p12 and encodes a 548 amino acid protein. The major regulatory site phosphorylated by AMPKK on AMPK $\alpha$  has been identified as Thr 172 within the activation loop between the DFG and APE motifs of the alpha-subunits.

## References

Note: This product is for in vitro research use only