

Product datasheet for **AP20479PU-N**

AMPK beta 1 (PRKAB1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	Western blot: 1/500 - 1/1000. Immunohistochemistry on paraffin sections 1/50 - 1/200. Immunofluorescence: 1/50 - 1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of AMPKbeta1 protein. (region surrounding His17)
Formulation:	Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography (> 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 38 kDa
Gene Name:	protein kinase AMP-activated non-catalytic subunit beta 1
Database Link:	Entrez Gene 19079 Mouse Entrez Gene 83803 Rat Entrez Gene 5564 Human Q9Y478



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Background:

AMPK (for 5'-AMP-activated protein kinase) is a heterotrimeric complex comprising a catalytic alpha subunit and regulatory beta and gamma subunits. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. AMPK is activated by high AMP and low ATP through a mechanism involving allosteric regulation, promotion of phosphorylation by an upstream protein kinase known as AMPK kinase, 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 AMPKalpha1 and AMPKalpha2 genes encode 548 amino acid and 552 amino acid proteins, respectively. Human AMPKbeta1 encodes a 271 amino acid protein and human AMPKbeta2 encodes a 272 amino acid protein. The human AMPKgamma1 gene encodes a 331 amino acid protein. Human AMPKgamma2 and AMPKgamma3, which are 569 and 492 amino acid proteins, respectively, contain unique N-terminal domains and may participate directly in the binding of AMP within the AMPK complex.

Synonyms:

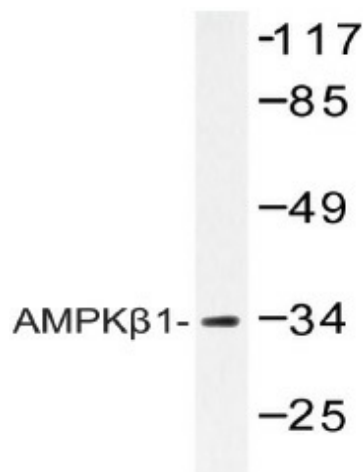
PRKAB1

Protein Families:

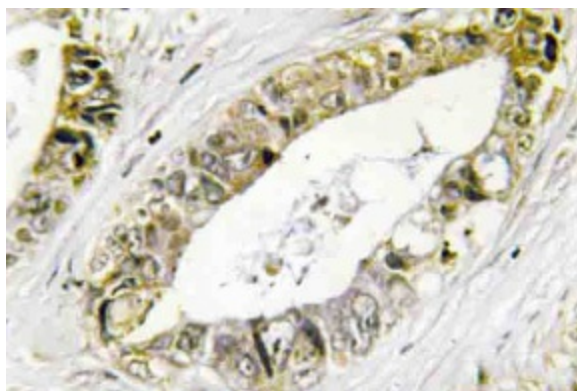
Druggable Genome

Protein Pathways:

Adipocytokine signaling pathway, Hypertrophic cardiomyopathy (HCM), Insulin signaling pathway

Product images:

Western blot (WB) analysis of AMPK β 1 antibody (Cat.-No.: AP20479PU-N) in extracts from RAW264.7 treated with TNF 20ng.



Immunohistochemistry (IHC) analyzes of AMPKbeta1 antibody (Cat.-No.: AP20479PU-N) in paraffin-embedded human colon carcinoma tissue.