

Product Name: AMPK β 1 Rabbit Polyclonal Antibody
Catalog #: APRab06851



Summary

Production Name	AMPK β 1 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IHC, WB, ELISA
Reactivity	Human, Mouse, Rat, Monkey

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	PRKAB1
Alternative Names	PRKAB1; AMPK; 5'-AMP-activated protein kinase subunit beta-1; AMPK subunit beta-1; AMPKb
Gene ID	5564.0
SwissProt ID	Q9Y478. The antiserum was produced against synthesized peptide derived from human AMPK beta1. AA range: 147-196

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:20000..
Molecular Weight	38kD

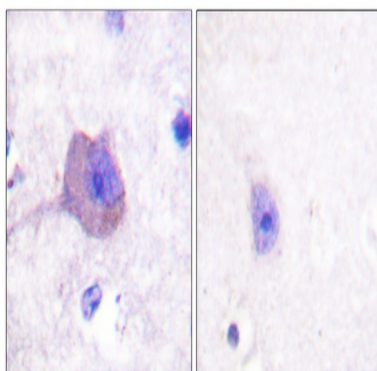
Background

The protein encoded by this gene is a regulatory 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. This subunit may be a positive regulator of AMPK activity. The myristoylation and phosphorylation of this subunit have been shown to affect the enzyme activity and cellular localization of AMPK. This subunit may also serve as an adaptor molecule mediating the association of the AMPK complex. [providedfunction:AMPK is responsible for the regulation of fatty acid synthesis by phosphorylation of acetyl-CoA carboxylase. Also regulates cholesterol synthesis via phosphorylation and inactivation of hydroxymethylglutaryl-CoA reductase and hormone-sensitive lipase. This is a regulatory subunit, may be a positive regulator of AMPK activity. It may also serve as an adaptor molecule for the catalytic alpha-subunit.,PTM:Phosphorylated.,similarity:Belongs to the 5'-AMP-activated protein kinase beta subunit family.,subunit:Heterotrimer of an alpha catalytic subunit, a beta and a gamma non-catalytic regulatory subunits. Interacts with FNIP1 and FNIP2.,

Research Area

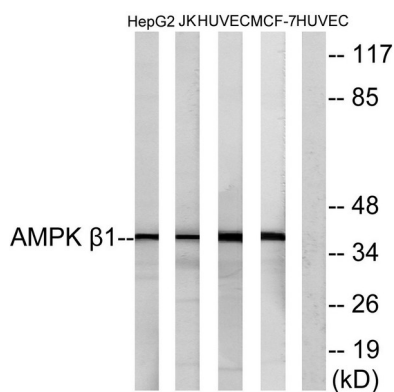
AMPK

Image Data

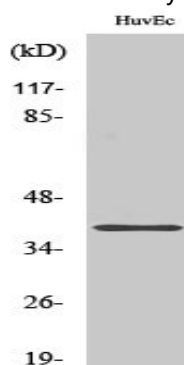


Immunohistochemistry analysis of paraffin-embedded human brain tissue, using AMPK beta1 Antibody. The picture on the right is blocked with the synthesized peptide.

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Western blot analysis of lysates from HepG2, Jurkat, HUVEC, and MCF-7 cells, using AMPK beta1 Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using AMPK β 1 Polyclonal Antibody diluted at 1: 1000 cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Inventbiotech, MN, USA) .

Note

For research use only.