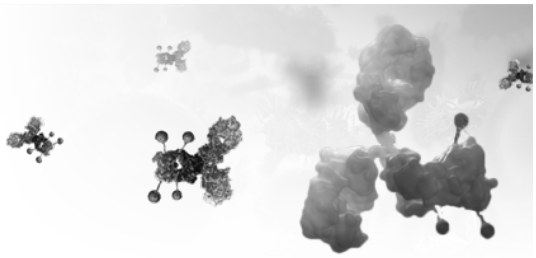

Rabbit Anti-AMPK alpha 1 monoclonal antibody, clone TV14-59 (CABT-L648)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Target	AMPK alpha 1
Immunogen	Recombinant protein
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Clone	TV14-59
Purification	Protein A purified.
Conjugate	Unconjugated
Applications	WB, ICC/IF, IP, FC
Molecular Weight	63 kDa
Cellular Localization	Cytoplasm, Nucleus.
Positive Control	PANC-1, PC-12, Hela.
Format	Liquid
Size	100 µl
Buffer	1×TBS (pH7.4), 1% BSA, 40% Glycerol.
Preservative	0.05% Sodium Azide

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Storage	Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

BACKGROUND

Introduction	AMPK (for 5'-AMP-activated protein kinase) is a heterotrimeric complex com-prising a catalytic α subunit and regulatory β and γ subunits. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming bio-synthetic 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 hydroxy-methylglutaryl-CoA reductase and acetyl-CoA carboxylase, which are key regulatory enzymes of sterol synthesis and fatty acid synthesis, respectively. The human AMPKα1 and AMPKα2 genes encode 548 amino acid and 552 amino acid proteins, respectively. Human AMPKβ1 encodes a 271 amino acid protein and human AMPKβ2 encodes a 272 amino acid protein. The human AMPKγ1 gene encodes a 331 amino acid protein. Human AMPKγ2 and AMPKγ3, 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.
Keywords	5 AMP activated protein kinase alpha 1catalytic subunit;5 AMP activated protein kinase catalytic alpha 1 chain;5' AMP activated protein kinase catalytic subunit alpha 1;5'-AMP-activated protein kinase catalytic subunit alpha-1;AAPK1;AAPK1_HUMAN;ACACA kinase;acetyl CoA carboxylase kinase;AI194361;AI450832;AL024255;AMP -activate kinase alpha 1 subunit;AMP-activated protein kinase, catalytic, alpha -1;AMPK 1;AMPK alpha 1;AMPK alpha 1 chain;AMPK;AMPK subunit alpha-1;AMPK1;AMPKa1;AMPKalpha1;C130083N04Rik;cb116;EC 2.7.11.1;HMG CoA reductase kinase;HMGCR kinase;hormone sensitive lipase kinase;Hydroxymethylglutaryl CoA reductase kinase;im:7154392;kinase AMPK alpha1;MGC33776;MGC57364;OTTHUMP00000161795;OTTHUMP00000161796;PRKAA1;PRKAA1;Protein kinase AMP activated alpha 1 catalytic subunit;SNF1-like protein AMPK;SNF1A;Tau protein kinase PRKAA1;wu:fa94c10 antibody

GENE INFORMATION

Entrez Gene ID	891

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