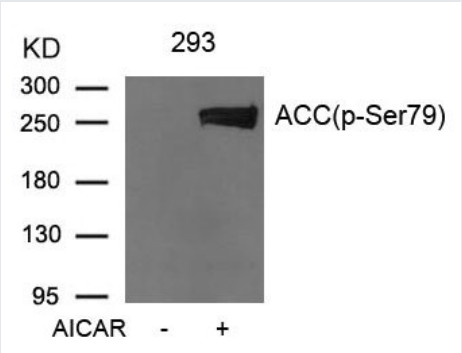
ACACA Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ACACA, Polyclonal Antibody
Full Product Name	Phospho-ACACA (Ser79) Antibody
Product Gene Name	anti-ACACA antibody
Product Synonym Names	ACC; ACAC; ACC1; ACCA
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid; Supplied at 1.0mg/mL In Phosphate Buffered Saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% Sodium Azide and 50% Glycerol.
Purity/Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography usin
Preparation and Storage	Upon receipt, store at -20 degree C or -80 degree C. Avoid repeated freeze.
Molecular Weight	265,554 Da
Chromosome Location	Chromosome: 17; NC_000017.10 (35441927..35766902, complement). Location: 17q21
OMIM	200350
3D Structure	ModBase 3D Structure for Q13085
Immunogen Species	Human
Conjugate	Non-conjugated
Product Categories/Family for anti-ACACA antibody	Cardiovascular
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-ACACA antibody	ELISA (EIA), Western Blot (WB)
Related Product Information for anti-ACACA antibody	MBS7132933 is an antibody targeting ACACA. Also known as Phospho-ACACA (Ser79) Antibody. Reactive in Human. Host: Rabbit.
Other Notes	Small volumes of anti-ACACA antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-ACACA antibody
Western blot analysis of extracts from 293 cells untreated or treated with AICAR using Acetyl-CoA Carboxylase (Phospho-Ser79) Antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ACACA. It may not necessarily be applicable to this product.

NCBI GI #	38679960
NCBI GeneID	31
NCBI Accession #	NP_942131.1
UniProt Primary Accession #	Q13085
UniProt Secondary Accession #	Q6KEV6; Q6XDA8; Q7Z2G8; Q7Z561; Q7Z563; Q7Z564; Q86WB2; Q86WB3; B2RP68
UniProt Related Accession #	Q13085
GenBank Nucleotide #	NM_198834.1
NCBI Official Full Name	acetyl-CoA carboxylase 1 isoform 1
NCBI Official Synonym Full Names	acetyl-CoA carboxylase alpha
NCBI Official Symbol	ACACA
NCBI Official Synonym Symbols	ACC; ACAC; ACC1; ACCA; ACACAD
UniProt Protein Name	Acetyl-CoA carboxylase 1
UniProt Synonym Protein Names	ACC-alpha
UniProt Gene Name	ACACA
UniProt Synonym Gene Names	ACAC; ACC1; ACCA; ACC1
UniProt Entry Name	ACACA_HUMAN
NCBI Protein Information	acetyl-CoA carboxylase 1; ACC-alpha; acetyl-Coenzyme A carboxylase alpha
NCBI Summary for ACACA	Acetyl-CoA carboxylase (ACC) is a complex multifunctional enzyme system. ACC is a biotin-containing enzyme which catalyzes the carboxylation of acetyl-CoA to malonyl-CoA, the rate-limiting step in fatty acid synthesis. There are two ACC forms, alpha and beta, encoded by two different genes. ACC-alpha is highly enriched in lipogenic tissues. The enzyme is under long term control at the transcriptional and translational levels and under short term regulation by the phosphorylation/dephosphorylation of targeted serine residues and by allosteric transformation by citrate or palmitoyl-CoA. Multiple alternatively spliced transcript variants divergent in the 5' sequence and encoding distinct isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

UniProt Comments for ACACA	ACC1: a subunit of acetyl-CoA carboxylase (ACC), a multifunctional enzyme system. Catalyzes the carboxylation of acetyl-CoA to malonyl-CoA, the rate-limiting step in fatty acid synthesis. Phosphorylation by AMPK or PKA inhibits the enzymatic activity of ACC. ACC-alpha is the predominant isoform in liver, adipocyte and mammary gland. ACC-beta is the major isoform in skeletal muscle and heart. Phosphorylation regulates its activity. Protein type: Ligase; EC 6.3.4.14; EC 6.4.1.2; Carbohydrate Metabolism - propanoate; Carbohydrate Metabolism - pyruvate; Lipid Metabolism - fatty acid biosynthesis Chromosomal Location of Human Ortholog: 17q21 Cellular Component: mitochondrion; cytoplasm; nucleolus; cytosol; actin cytoskeleton Molecular Function: protein binding; acetyl-CoA carboxylase activity; metal ion binding; biotin carboxylase activity; ATP binding Biological Process: vitamin metabolic process; acetyl-CoA metabolic process; multicellular organismal protein metabolic process; tissue homeostasis; positive regulation of cellular metabolic process; energy reserve metabolic process; lipid homeostasis; triacylglycerol biosynthetic process; carnitine shuttle; cellular lipid metabolic process; water-soluble vitamin metabolic process; fatty acid biosynthetic process; biotin metabolic process; protein homotetramerization Disease: Acetyl-coa Carboxylase Deficiency
Research Articles on ACACA	**1.** Exercise training increased AMPKalpha1 activity in older men, however, AMPKalpha2 activity, and the phosphorylation of AMPK, ACC and mTOR, were not affected
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