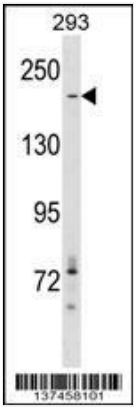
ACACA Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ACACA, Polyclonal Antibody
Full Product Name	ACACA, CT (ACACA, ACAC, ACC1, ACCA, Acetyl-CoA carboxylase 1, ACC-alpha, Biotin carboxylase) (Biotin)
Product Gene Name	anti-ACACA antibody
Product Synonym Names	ACACA; ACAC; ACC1; ACCA; Acetyl-CoA carboxylase 1; ACC-alpha; Biotin carboxylase
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Biotin.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	259,686 Da
OMIM	200350
3D Structure	ModBase 3D Structure for Q13085
Immunogen	ACACA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 2009-2039 amino acids from the C-terminal region of human ACACA.
Conjugate	Biotin
Note	Preservative Free
Product Categories/Family for anti-ACACA antibody	Antibodies; Enzymes
Applications Tested/Suitable for anti-ACACA antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-ACACA antibody	WB: 1:100-500 ELISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-ACACA antibody	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.
Product References and Citations for anti-ACACA antibody	Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010). Ruano, G., et al. Pharmacogenomics 11(7):959-971(2010). Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010): Kim, C.W., et al. Proc. Natl. Acad. Sci. U.S.A. 107(21):9626-9631(2010). Zhao, L.F., et al. Endocr. J. 57(4):317-324(2010).

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.
Searchable Terms for ACACA purchase	MBS6270751 is an antibody targeting ACACA. Also known as ACACA, CT (ACACA, ACAC, ACC1, ACCA, Acetyl-CoA carboxylase 1, ACC-alpha, Biotin carboxylase) (Biotin). Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-ACACA antibody
ACACA Antibody (C-term) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the ACACA antibody detected the ACACA protein (arrow).

ADDITIONAL DETAILS

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

NCBI GI #	38679967
NCBI GeneID	31
NCBI Accession #	NP_942133.1
NCBI Related 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_198836.2
NCBI Official Full Name	acetyl-CoA carboxylase 1 isoform 2
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

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
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