

ACACA Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP17139b**Specification**

ACACA Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [Q13085](#)**ACACA Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 31**Other Names**

Acetyl-CoA carboxylase 1, ACC1, ACC-alpha, Biotin carboxylase, ACACA, ACAC, ACC1, ACCA

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ACACA Antibody (C-term) Blocking Peptide - Protein Information**Name** ACACA ([HGNC:84](#))**Synonyms** ACAC, ACC1, ACCA**Function**

Cytosolic enzyme that catalyzes the carboxylation of acetyl- CoA to malonyl-CoA, the first and rate-limiting step of de novo fatty acid biosynthesis (PubMed:20457939, PubMed:20952656, PubMed:29899443). This is a 2 steps reaction starting with the ATP-dependent carboxylation of the biotin carried by the biotin carboxyl carrier (BCC) domain followed by the transfer of the carboxyl group from carboxylated biotin to acetyl-CoA (PubMed:20457939, PubMed:20952656, PubMed:29899443).

Cellular Location

Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q5SWU9}

Tissue Location

Expressed in brain, placenta, skeletal muscle, renal, pancreatic and adipose tissues; expressed at low level in pulmonary tissue; not detected in the liver

ACACA Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

ACACA Antibody (C-term) Blocking Peptide - Images

ACACA Antibody (C-term) Blocking Peptide - Background

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.

ACACA Antibody (C-term) Blocking Peptide - References

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)