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ACACB / ACC2 Antibody (Internal)

Goat Polyclonal Antibody

Catalog # ALS16336

Specification

ACACB / ACC2 Antibody (Internal) - Product Information

Application	**IHC**
Primary Accession	O00763
Reactivity	**Human, Mouse, Rat, Monkey**
Host	**Goat**
Clonality	**Polyclonal**
Calculated MW	**277kDa KDa**

ACACB / ACC2 Antibody (Internal) - Additional Information

Gene ID 32

Other Names
Acetyl-CoA carboxylase 2, 6.4.1.2, ACC-beta, Biotin carboxylase, 6.3.4.14, ACACB, ACC2, ACCB

Target/Specificity
Mouse ACACB / ACC2.

Reconstitution & Storage
Store at -20°C. Minimize freezing and thawing.

Precautions
ACACB / ACC2 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

ACACB / ACC2 Antibody (Internal) - Protein Information

Name ACACB (HGNC:85)

Synonyms ACC2, ACCB

Function
Mitochondrial enzyme that catalyzes the carboxylation of acetyl-CoA to malonyl-CoA and plays a central role in fatty acid metabolism (PubMed:16854592, PubMed:19236960, PubMed:20457939, PubMed:20952656, PubMed:19900410, PubMed:26976583). Catalyzes 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:<a href="http://www.uniprot.org/citations/19236960"

target="_blank">19236960, PubMed:20457939, PubMed:20952656, PubMed:26976583). Through the production of malonyl-CoA that allosterically inhibits carnitine palmitoyltransferase 1 at the mitochondria, negatively regulates fatty acid oxidation (By similarity). Together with its cytosolic isozyme ACACA, which is involved in de novo fatty acid biosynthesis, promotes lipid storage (By similarity).

Cellular Location
Mitochondrion.

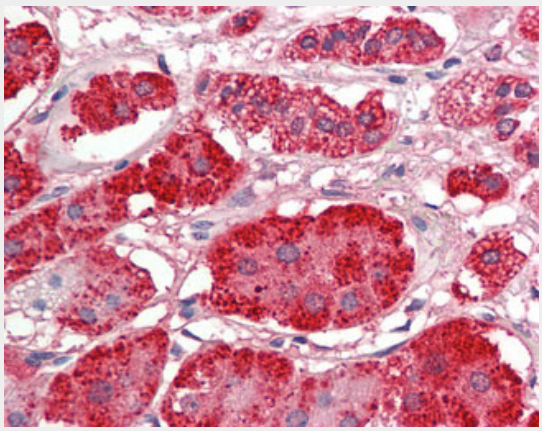
Tissue Location
Widely expressed with highest levels in heart, skeletal muscle, liver, adipose tissue, mammary gland, adrenal gland and colon (PubMed:9099716). Isoform 3 is expressed in skeletal muscle, adipose tissue and liver (at protein level) (PubMed:19190759). Isoform 3 is detected at high levels in adipose tissue with lower levels in heart, liver, skeletal muscle and testis (PubMed:19190759)

ACACB / ACC2 Antibody (Internal) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ACACB / ACC2 Antibody (Internal) - Images



Anti-ACACB / ACC2 antibody IHC staining of human adrenal.

ACACB / ACC2 Antibody (Internal) - Background

Catalyzes the ATP-dependent carboxylation of acetyl-CoA to malonyl-CoA. Carries out three functions: biotin carboxyl carrier protein, biotin carboxylase and carboxyltransferase. Involved in inhibition of fatty acid and glucose oxidation and enhancement of fat storage (By similarity). May play a role in regulation of mitochondrial fatty acid oxidation through malonyl- CoA-dependent inhibition of carnitine palmitoyltransferase 1 (By similarity).

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ACACB / ACC2 Antibody (Internal) - References

Abu-Elheiga L.,et al.J. Biol. Chem. 272:10669-10677(1997).
Cheng D.,et al.Protein Expr. Purif. 51:11-21(2007).
Peng X.R.,et al.Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.
Mao J.,et al.Submitted (SEP-2003) to the EMBL/GenBank/DDBJ databases.
Scherer S.E.,et al.Nature 440:346-351(2006).