



ACACB mouse mAb

Catalog No	YP-mAb-12115
Isotype	IgG
Reactivity	Human;Rat;Mouse;
Applications	WB
Gene Name	ACACB ACC2 ACCB
Protein Name	ACACB
Immunogen	Synthesized peptide derived from human ACACB
Specificity	This antibody detects endogenous levels of ACACB at Human
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, mouse,IgG
Purification	The antibody was affinity-purified from mouse serum by affinity-chromatography using specific immunogen.
Dilution	WB 1 : 500-2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Calculated Molecular Weight	270kD
Cell Pathway	Mitochondrion .
Tissue Specificity	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).
Function	catalytic activity:ATP + acetyl-CoA + HCO(3)(-) = ADP + phosphate + malonyl-CoA.,catalytic activity:ATP + biotin-carboxyl-carrier protein + CO(2) = ADP + phosphate + carboxybiotin-carboxyl-carrier protein.,cofactor:Binds 2 manganese ions per subunit.,cofactor:Biotin.,enzyme regulation:Activated by citrate. Inhibited by malonyl-CoA.,function:ACC-beta may be involved in the provision of malonyl-CoA or in the regulation of fatty acid oxidation, rather than fatty acid biosynthesis. Carries out three functions: biotin carboxyl carrier protein, biotin carboxylase and carboxyltransferase.,pathway:Lipid metabolism; malonyl-CoA biosynthesis; malonyl-CoA from acetyl-CoA: step 1/1.,similarity:Contains 1 ATP-grasp domain.,similarity:Contains 1 biotin carboxylation domain.,similarity:Contains 1 biotinyl-binding domain.,similarity:Contains 1 carboxyltransferase domain.,subcellular location:May associa



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. ACC-beta is thought to control fatty acid oxidation by means of the ability of malonyl-CoA to inhibit carnitine-palmitoyl-CoA transferase I, the rate-limiting step in fatty acid uptake and oxidation by mitochondria. ACC-beta may be involved in the regulation of fatty acid oxidation, rather than fatty acid biosynthesis. There is evidence for the presence of two ACC-beta isoforms. [provided by RefSeq, Jul 2008],

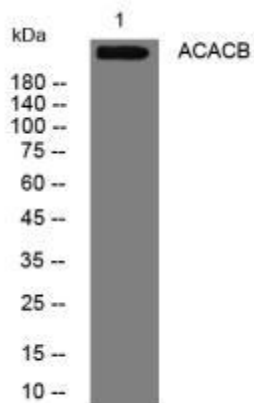
matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western blot analysis of lysates from U2OS cells, primary antibody was diluted at 1:1000, 4° over night