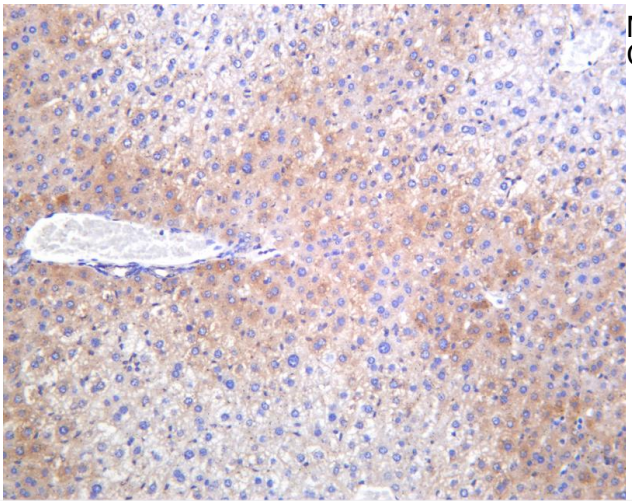
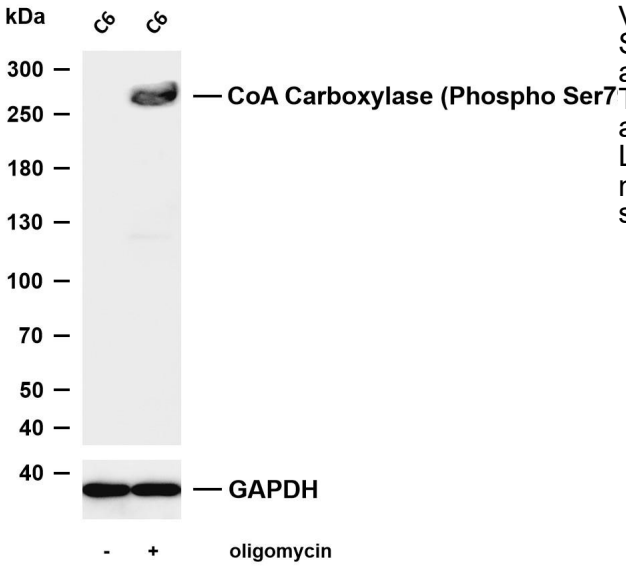
Acetyl-CoA Carboxylase (Phospho Ser79) Rabbit mAb

Catalog No	YP-rAb-18379
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IHC,IF,IP,ELISA
Gene Name	ACACB;ACACA
Protein Name	ACC,Acetyl-CoA carboxylase 2;ACC-beta;Acetyl-CoA carboxylase 1;ACC1;
Purification Process	Protein A
Specificity	Acetyl-CoA Carboxylase (Phospho Ser79) Monoclonal Antibody detects endogenous levels of ACC protein only when phosphorylated at S79.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):SSmSG
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:200-1:1000; WB 1:1000-1:15000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15° C to -25° C/1 year(Do not lower than -25° C)
Synonyms	ACACA ; ACAC ; ACC1 ; ACCA ; Acetyl-CoA carboxylase 1 ; ACC1 ; ACC-alpha ; ACACB,Acetyl CoA carboxylase 2,ACC beta,ACC2,ACCB,AcetylCoA carboxylase 2,ACCbeta,ACCβ,ACC β,
Observed Band	266kD
Calculated Molecular Weight	266kD
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 associate with membranes.,tissue specificity:Predominantly expressed in the heart, skeletal muscles and liver.,
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.



Mouse liver was stained with anti-Acetyl-CoA Carboxylase (Phospho Ser79) Rabbit antibody



Various whole cell lysates were separated by 4-8% SDS-PAGE, and the membrane was blotted with anti-Acetyl-CoA Carboxylase (Phospho Ser79) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: C6 Lane 2: C6 was treated with oligomycin(0.5 μ M) for 30 minutes Predicted band size: 266kDa Observed band size: 266kDa