Best Tools for immunology Research

ACCα (phospho Ser80) Polyclonal Antibody

Catalog No :	YP0620
Reactivity :	Human;Mouse;Rat
Applications :	WB;IHC;IF;ELISA
Target :	ACCα
Fields :	>>Fatty acid biosynthesis;>>Pyruvate metabolism;>>Propanoate metabolism;>>Metabolic pathways;>>Fatty acid metabolism;>>AMPK signaling pathway;>>Insulin signaling pathway;>>Glucagon signaling pathway;>>Alcoholic liver disease
Gene Name :	ACACA
Protein Name :	Acetyl-CoA carboxylase 1
Human Gene Id :	31
Human Swiss Prot No :	Q13085
Mouse Gene Id :	107476
Mouse Swiss Prot No :	Q5SWU9
Rat Gene Id :	60581
Rat Swiss Prot No :	P11497
Immunogen :	The antiserum was produced against synthesized peptide derived from human ACC1 around the phosphorylation site of Ser80. AA range:46-95
Specificity :	Phospho-ACCα (S80) Polyclonal Antibody detects endogenous levels of ACCα protein only when phosphorylated at S80.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG

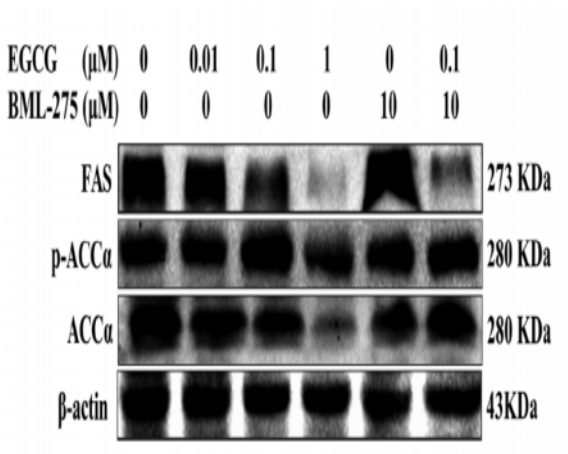
Dilution :	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:10000.. IF 1:50-200
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	265kD
Cell Pathway :	Fatty acid biosynthesis;Pyruvate metabolism;Propanoate metabolism;Insulin_Receptor;
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. [provided by RefSeq, Jul 2008],
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.,disease:Defects in ACACA are a cause of ACACA deficiency [MIM:200350]; also called ACAC or ACC deficiency. ACACA deficiency is an inborn error of de novo fatty acid synthesis. The disorder is associated with severe brain damage, persistent myopathy and poor growth.,enzyme regulation:By phosphorylation.,function:Catalyzes the rate-limiting reaction in the biogenesis of long-chain fatty acids. Carries out three functions: biotin carboxyl carrier protein, biotin carboxylase and carboxyltransferase.,online information:Acetyl-CoA carboxylase entry,pathway:Lipid metabolism; malonyl-CoA biosynthesis; malonyl-CoA from acetyl-CoA: st
Subcellular Location :	Cytoplasm, cytosol .
Expression :	Expressed in brain, placenta, skeletal muscle, renal, pancreatic and adipose tissues; expressed at low level in pulmonary tissue; not detected in the liver.
Tag :	orthogonal,hot

Sort : 1

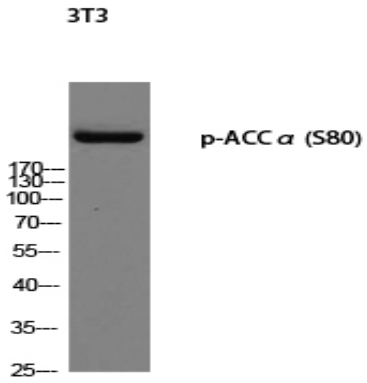
Host : Rabbit

Modifications : Phospho

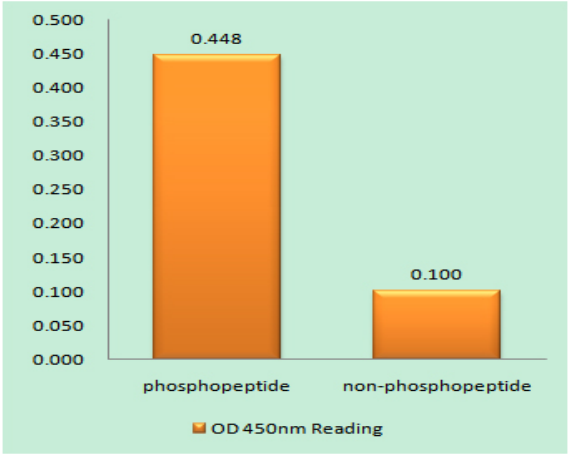
Products Images



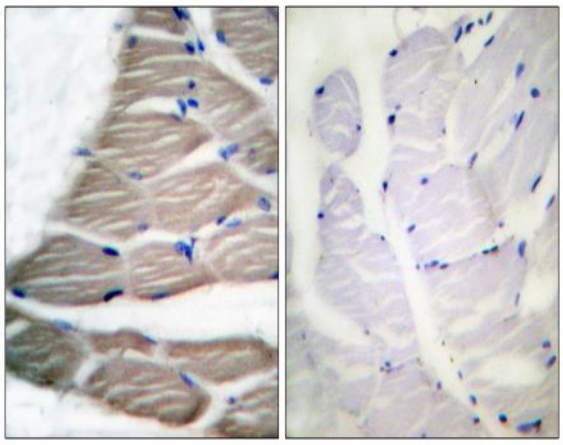
Ding, Hongyan, et al. "Epigallocatechin-3-gallate activates the AMP-activated protein kinase signaling pathway to reduce lipid accumulation in canine hepatocytes." Journal of Cellular Physiology 236.1 (2021): 405-416.



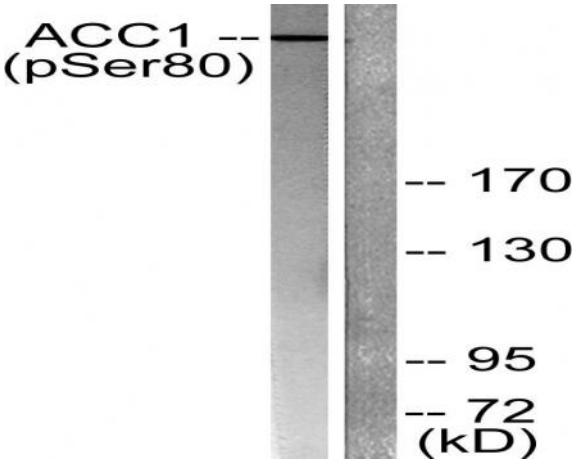
Western blot analysis of 3T3 using p-ACCα (S80) antibody. Antibody was diluted at 1:1000



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using ACC1 (Phospho-Ser80) Antibody



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using ACC1 (Phospho-Ser80) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from K562 cells treated with Insulin 0.01U/ml 15', using ACC1 (Phospho-Ser80) Antibody. The lane on the right is blocked with the phospho peptide.