

ACACA (Phospho Ser80) Rabbit pAb

CatalogNo: YP0620 **Orthogonal Validated** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC, IF, ELISA

MW

- 265kD (Observed)

Isotype

- IgG

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-1:2000

IHC 1:100-1:300

ELISA 1:10000

IF 1:50-200

Basic Information

Clonality Polyclonal

Immunogen Information

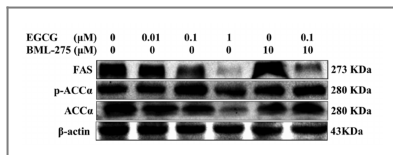
Immunogen The antiserum was produced against synthesized peptide derived from human ACC1 around the phosphorylation site of Ser80. AA range:46-95

Specificity Phospho-ACCα (S80) Polyclonal Antibody detects endogenous levels of ACCα protein only when phosphorylated at S80. 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 When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports.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):SMsGL

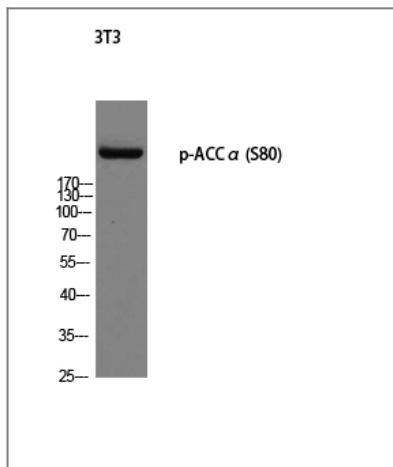
Target Information

Gene name	ACACA		
Protein Name	Acetyl-CoA carboxylase 1;ACC1;Acetyl-Coenzyme A carboxylase alpha;ACC-alpha;		
	Organism	Gene ID	UniProt ID
	Human	31 ;	Q13085 ;
	Mouse	107476 ;	Q5SWU9 ;
	Rat	60581 ;	P11497 ;
Cellular Localization	Cytoplasm , cytosol .		
Tissue specificity	Expressed in brain , placenta , skeletal muscle , renal , pancreatic and adipose tissues; expressed at low level in pulmonary tissue; not detected in the liver.		
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: step 1/1. ,PTM:Phosphorylation on Ser-1263 is required for interaction with BRCA1. ,similarity:Contains 1 ATP-grasp domain. ,similarity:Contains 1 biotin carboxylation domain. ,similarity:Contains 1 biotinyl-binding domain. ,similarity:Contains 1 carboxyltransferase domain. ,subunit:Interacts in its inactive phosphorylated form with the BRCT domains of BRCA1 which prevents ACACA dephosphorylation and inhibits lipid synthesis. ,tissue specificity:Expressed in brain , placental , skeletal muscle , renal , pancreatic and adipose tissues; expressed at low level in pulmonary tissue; not detected in the liver. ,		

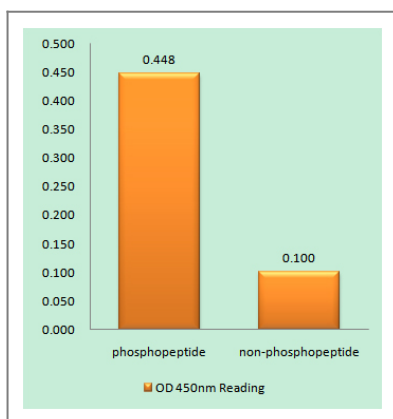
Validation Data



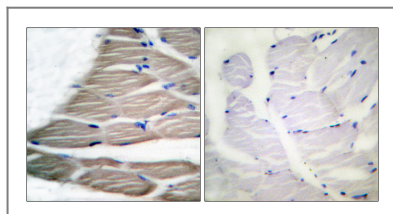
Ding, Hongyan, et al. "Epigallocatechin-3-gallate activates the AMP-activated protein kinase signaling pathway to reduce lipid accumulation in canine hepatocytes." *Journal of Cellular Physiology* 236.1 (2021): 405-416.



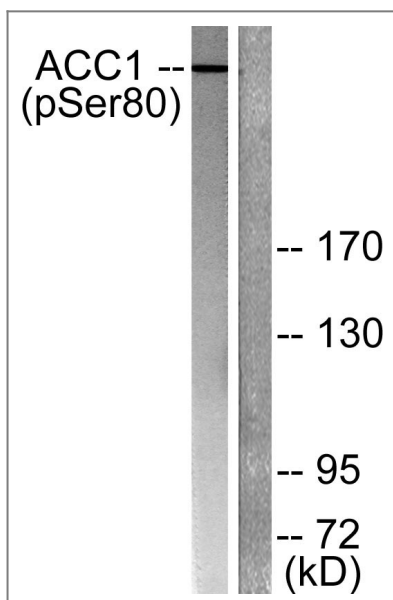
Western blot analysis of 3T3 using p-ACCα (S80) antibody. Antibody was diluted at 1:1000



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.

| Contact information

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Ser80) Rabbit pAb**

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