



## Rabbit Anti-phospho-Acetyl Coenzyme A Carboxylase alpha (Ser1263) antibody

SL12955R

<b>Product Name:</b>	phospho-Acetyl Coenzyme A Carboxylase alpha (Ser1263)
<b>Chinese Name:</b>	磷酸化乙酰辅酶A羧化酶抗体
<b>Alias:</b>	Acetyl Coenzyme A Carboxylase alpha (phospho S1263); p-Acetyl Coenzyme A Carboxylase alpha (phospho S1263); ACAC; ACACA; ACACA; ACACA_HUMAN; ACC alpha; ACC; ACC-alpha; ACC1; ACC1; ACCA; acetyl CoA carboxylase 1; acetyl Coenzyme A; Acetyl Coenzyme A; Biotin carboxylase; Acetyl-Coenzyme A Carboxylase alpha.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,
<b>Applications:</b>	ELISA=1:500-1000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	265kDa
<b>Cellular localization:</b>	cytoplasmic
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthesised phosphopeptide derived from human Acetyl Coenzyme A Carboxylase alpha around the phosphorylation site of Ser1263:PQ(p-S)PT
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>

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:**

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.

**Subunit:**

Monomer, homodimer, and homotetramer. Can form filamentous polymers. Interacts in its inactive phosphorylated form with the BRCT domains of BRCA1 which prevents ACACA dephosphorylation and inhibits lipid synthesis. Interacts with MID1IP1; interaction with MID1IP1 promotes oligomerization and increases its activity.

**Subcellular Location:**

Cytoplasm.

**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.

**Post-translational modifications:**

Phosphorylation on Ser-1263 is required for interaction with BRCA1.

**DISEASE:**

Defects in ACACA are a cause of acetyl-CoA carboxylase 1 deficiency (ACACAD) [MIM:613933]; also known as ACAC deficiency or ACC deficiency. An inborn error of de novo fatty acid synthesis associated with severe brain damage, persistent myopathy and poor growth.

**Similarity:**

Contains 1 ATP-grasp domain.  
Contains 1 biotin carboxylation domain.  
Contains 1 biotinyl-binding domain.  
Contains 1 carboxyltransferase domain.

**SWISS:**

Q13085

**Product Detail:**

**Gene ID:**

31

**Database links:**[Entrez Gene: 31](#)Human[Entrez Gene: 107476](#)Mouse[Entrez Gene: 60581](#)Rat[Omim: 200350](#)Human[SwissProt: Q13085](#)Human[SwissProt: Q5SWU9](#)Mouse[SwissProt: P11497](#)Rat**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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