

## ACACA (Phospho Ser80) Rabbit pAb

CatalogNo: YP0595 **Orthogonal Validated** 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 280kD (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 1:5000**

**IF 1:50-200**

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

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

## Specificity

Phospho-ACC $\alpha$  (S80) Polyclonal Antibody detects endogenous levels of ACC $\alpha$  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 When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports.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;

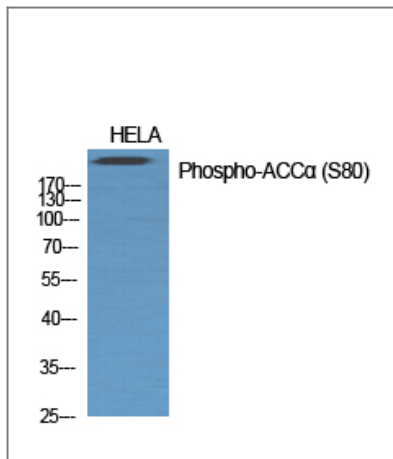
Organism	Gene ID	UniProt ID
Human	<a href="#">31</a> ;	<a href="#">Q13085</a> ;
Mouse	<a href="#">107476</a> ;	<a href="#">Q5SWU9</a> ;
Rat	<a href="#">60581</a> ;	<a href="#">P11497</a> ;

**Cellular Localization** Cytoplasm, cytosol .

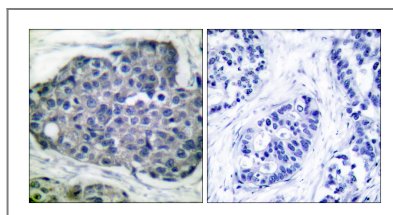
**Tissue specificity** Expressed in brain, placenta, skeletal muscle, renal, pancreatic and adipose tissues; expressed at low level in pulmonary tissue; not detected in the liver.

**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.,

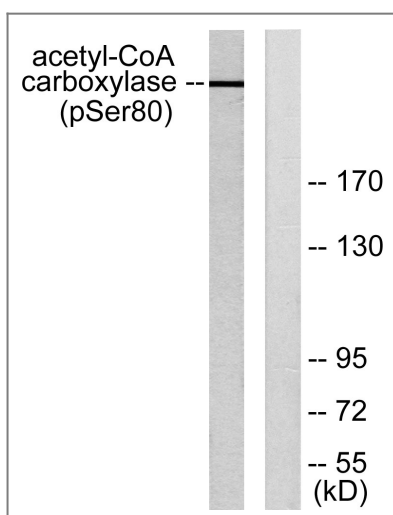
## Validation Data



Western Blot analysis of various cells using Phospho-ACC $\alpha$  (S80) Polyclonal Antibody diluted at 1:1000



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



Western blot analysis of lysates from 293 cells treated with EGF 200ng/ml 5', using Acetyl-CoA Carboxylase (Phospho-Ser80) Antibody. The lane on the right is blocked with the phospho peptide.

## Contact information

Orders: [order.cn@immunoway.com](mailto:order.cn@immunoway.com)  
 Support: [support.cn@immunoway.com](mailto:support.cn@immunoway.com)  
 Telephone: 400-8787-807(China)  
 Website: <http://www.immunoway.com.cn>  
 Address: 2200 Ringwood Ave San Jose, CA 95131 USA



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