

## ATP-citrate synthase (phospho Ser455) Polyclonal Antibody

Catalog No: YP0686

**Reactivity:** Human; Mouse; Rat; Monkey

**Applications:** WB;IHC;IF;ELISA

Target: ATP-citrate synthase

**Fields:** >>Citrate cycle (TCA cycle);>>Metabolic pathways

Gene Name: ACLY

**Protein Name:** ATP-citrate synthase

Human Gene Id: 47

**Human Swiss Prot** 

P53396

Q91V92

No:

Mouse Gene Id: 104112

**Mouse Swiss Prot** 

No:

Rat Gene ld: 24159

Rat Swiss Prot No: P16638

**Immunogen:** The antiserum was produced against synthesized peptide derived from human

ATP-Citrate Lyase around the phosphorylation site of Ser454. AA range:420-469

**Specificity:** Phospho-ATP-citrate synthase (S455) Polyclonal Antibody detects endogenous

levels of ATP-citrate synthase protein only when phosphorylated at S455.

**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

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**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: 125kD

**Cell Pathway :** Citrate cycle (TCA cycle);

**Background :** ATP citrate lyase(ACLY) Homo sapiens ATP citrate lyase is the primary enzyme

responsible for the synthesis of cytosolic acetyl-CoA in many tissues. The enzyme is a tetramer (relative molecular weight approximately 440,000) of apparently identical subunits. It catalyzes the formation of acetyl-CoA and oxaloacetate from citrate and CoA with a concomitant hydrolysis of ATP to ADP and phosphate. The product, acetyl-CoA, serves several important biosynthetic pathways, including lipogenesis and cholesterogenesis. In nervous tissue, ATP citrate-lyase may be involved in the biosynthesis of acetylcholine. Multiple transcript variants encoding distinct isoforms have been identified for this gene. [provided by RefSeq, Dec

2014],

**Function:** catalytic activity:ADP + phosphate + acetyl-CoA + oxaloacetate = ATP + citrate

+ CoA.,function:ATP citrate-lyase is the primary enzyme responsible for the synthesis of cytosolic acetyl-CoA in many tissues. Has a central role in de novo lipid synthesis. In nervous tissue it may be involved in the biosynthesis of

acetylcholine.,similarity:In the C-terminal section; belongs to the succinate/malate CoA ligase alpha subunit family.,similarity:In the N-terminal section; belongs to the succinate/malate CoA ligase beta subunit family.,subunit:Homotetramer.,

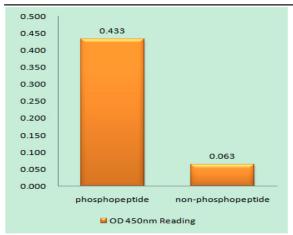
Subcellular Location:

Cytoplasm, cytosol.

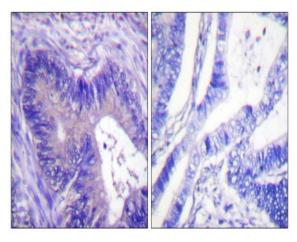
**Expression:** Brain, Epithelium, Hippocampus, Liver, Lymph, Platelet,

## **Products Images**

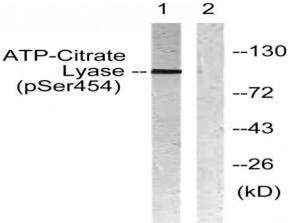
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Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using ATP-Citrate Lyase (Phospho-Ser454) Antibody



Immunohistochemistry analysis of paraffin-embedded human colon carcinoma, using ATP-Citrate Lyase (Phospho-Ser454) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from COS7 cells treated with Calyculin 50nM 30', using ATP-Citrate Lyase (Phospho-Ser454) Antibody. The lane on the right is blocked with the phospho peptide.