

# p-ATP-citrate synthase (Ser 455): sc-33397

## BACKGROUND

ATP-citrate synthase, also designated ATP-citrate lyase or citrate cleavage enzyme, is a cytoplasmic homotetramer belonging to the succinate/malate CoA ligase family. The gene coding for this protein maps against chromosome 17q21.2. ATP-citrate synthase catalyses the formation of acetyl-CoA and oxaloacetate from citrate and CoA. This product, Acetyl-CoA, is necessary for both fatty acid and cholesterol biosynthesis. ATP citrate-lyase is important in the biosynthesis of acetylcholine in nervous tissue.

## CHROMOSOMAL LOCATION

Genetic locus: ACLY (human) mapping to 17q21.2; AclY (mouse) mapping to 11 D.

## SOURCE

p-ATP-citrate synthase (Ser 455) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 455 phosphorylated ATP-citrate synthase of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-33397 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

p-ATP-citrate synthase (Ser 455) is recommended for detection of phosphorylated Ser 455 of ATP-citrate synthase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p-ATP-citrate synthase (Ser 455) is also recommended for detection of correspondingly phosphorylated ATP-citrate synthase in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for ATP-citrate synthase siRNA (h): sc-45206, ATP-citrate synthase siRNA (m): sc-45207, ATP-citrate synthase shRNA Plasmid (h): sc-45206-SH, ATP-citrate synthase shRNA Plasmid (m): sc-45207-SH, ATP-citrate synthase shRNA (h) Lentiviral Particles: sc-45206-V and ATP-citrate synthase shRNA (m) Lentiviral Particles: sc-45207-V.

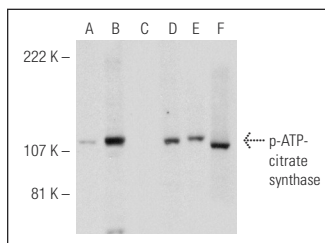
Molecular Weight of p-ATP-citrate synthase: 120 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Western blot analysis of ATP-citrate synthase phosphorylation in untreated (A,D), calyculin A treated (B,E) and calyculin A and lambda protein phosphatase (sc-200312A) treated (C,F) Jurkat whole cell lysates. Antibodies tested include p-ATP-citrate synthase (Ser 455): sc-33397 (A,B,C) and ATP-citrate synthase (C-20): sc-30538 (D,E,F).

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **p-ATP-citrate synthase (A-12): sc-374647**, our highly recommended monoclonal alternative to p-ATP-citrate synthase (Ser 455).