

COASY (SS06): sc-100474

BACKGROUND

COASY (coenzyme A synthase), also known as NBP (nucleotide binding protein), DPCK (dephospho-coenzyme A kinase), Ppat (pantetheine-phosphate adenylyltransferase), UKR1 or pOV-2, is a bifunctional enzyme involved in the biosynthesis of coenzyme A (CoA). COASY exhibits both Ppat activity and DPCK activity, catalyzing steps four and five, respectively, of the CoA biosynthetic pathway. Functioning as a widely expressed monomer and induced by phospholipids, COASY localizes to the outer mitochondrial membrane and facilitates the conversion of 4'-phosphopantetheine to dephospho-CoA and the subsequent generation of CoA. CoA is an important molecule in the cell, participating in carbohydrate, amino acid and fatty acid metabolism. It is the predominant acetyl and acyl group carrier and is used as a substrate by approximately 4% of all cellular enzymes. Due to alternative splicing events, an additional isoform of COASY, namely COASY β , is expressed in brain and contains an extra 29 amino acids at the N-terminus.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: COASY (human) mapping to 17q21.2.

RESEARCH USE

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

SOURCE

COASY (SS06) is a mouse monoclonal antibody raised against recombinant COASY of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

COASY (SS06) is recommended for detection of COASY of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for COASY siRNA (h): sc-93576, COASY shRNA Plasmid (h): sc-93576-SH and COASY shRNA (h) Lentiviral Particles: sc-93576-V.

Molecular Weight of COASY: 60 kDa.

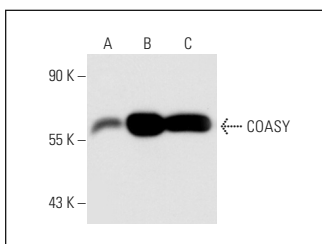
Molecular Weight of COASY β : 70 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201 or COASY (h2): 293T Lysate: sc-117292.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



COASY (SS06): sc-100474. Western blot analysis of COASY expression in non-transfected 293T: sc-117752 (A), human COASY transfected 293T: sc-117292 (B) and A-431 (C) whole cell lysates.

STORAGE

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