

ASS1 (K-18): sc-46066

BACKGROUND

ASS1, also known as argininosuccinate synthase or citrulline-aspartate ligase, belongs to the argininosuccinate synthase family. ASS1 is an urea cycle enzyme with a tetrameric structure composed of identical subunits. It is important to the urea cycle as it catalyzes the important second last step in the arginine biosynthetic pathway. A deficiency of ASS1 causes citrullinemia (CTLN1), an autosomal recessive disease which is characterized by severe vomiting spells and mental retardation.

REFERENCES

1. Bock, H.G., et al. 1983. Sequence for human argininosuccinate synthetase cDNA. *Nucleic Acids Res.* 11: 6505-6512.
2. Freytag, S.O., et al. 1984. Molecular structures of human argininosuccinate synthetase pseudogenes. Evolutionary and mechanistic implications. *J. Biol. Chem.* 259: 3160-3166.

CHROMOSOMAL LOCATION

Genetic locus: ASS1 (human) mapping to 9q34.11; Ass1 (mouse) mapping to 2 B.

SOURCE

ASS1 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ASS1 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-46066 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

ASS1 (K-18) is recommended for detection of ASS1 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).

ASS1 (C-19) is also recommended for detection of ASS1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ASS1 siRNA (h): sc-45810, ASS1 siRNA (m): sc-45811, ASS1 shRNA Plasmid (h): sc-45810-SH, ASS1 shRNA Plasmid (m): sc-45811-SH, ASS1 shRNA (h) Lentiviral Particles: sc-45810-V and ASS1 shRNA (m) Lentiviral Particles: sc-45811-V.

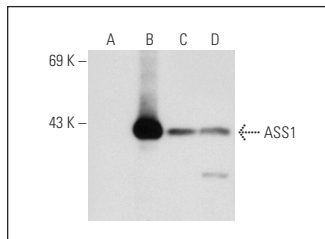
Molecular Weight of ASS1: 47 kDa.

Positive Controls: ASS1 (m): 293T Lysate: sc-126455, HeLa whole cell lysate: sc-2200 or ME-180 whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ASS1 (K-18): sc-46066. Western blot analysis of ASS1 expression in non-transfected 293T: sc-117752 (A), mouse ASS1 transfected 293T: sc-126455 (B), HeLa (C) and ME-180 (D) 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **ASS1 (E-12): sc-365475** or **ASS1 (C-4): sc-514726**, our highly recommended monoclonal alternatives to ASS1 (K-18).