BACKGROUND
α-aminoadipic semialdehyde synthase (AASS), also designated lysine ketoglutarate reductase (LKR) or saccharopine dehydrogenase (SDH), is a 926 amino acid protein that exists as a homodimer in the mitochondria. AASS acts as a bifunctional enzyme containing the lysine α-ketoglutarate reductase (LKR) and saccharopine dehydrogenase activities that catalyzes the first two steps in lysine degradation. It is widely expressed with highest expression in liver and transcription of the AASS gene is induced upon starvation. Mutations in the gene encoding AASS result in various forms of familial hyperlysinemia (FH), autosomal recessive disorders characterized by hyperlysinemia, lysinuria, and variable saccharopinuria. However, no adverse mental or physical effects have been found in patients with hyperlysinemia.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: AASS (human) mapping to 7q31.32; AASS (mouse) mapping to 6 A3.1.

SOURCE
AASS (B-7) is a mouse monoclonal antibody raised against amino acids 627-926 mapping at the C-terminus of AASS of human origin.

PRODUCT
Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

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

APPLICATIONS
AASS (B-7) is recommended for detection of AASS of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for AASS siRNA (h): sc-89857, AASS siRNA (m): sc-140738, AASS shRNA Plasmid (h): sc-89857-SH, AASS shRNA Plasmid (m): sc-140738-SH, AASS shRNA (h) Lentiviral Particles: sc-89857-V and AASS shRNA (m) Lentiviral Particles: sc-140738-V.

Molecular Weight (predicted) of AASS: 102 kDa.
Molecular Weight (observed) of AASS: 116-128 kDa.
Positive Controls: AN3 CA cell lysate: sc-24662 or rat liver extract: sc-2395.

RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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 m-IgGκ, BP-RTIC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA
AASS (B-7): sc-365417. Western blot analysis of AASS expression in non-transfected: sc-117752 (A) and mouse AASS transfected: sc-118147 (B) 293T whole cell lysates.

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

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