

Sacsin (F-1): sc-365585

BACKGROUND

The SACS gene encodes Sacsin, a protein that plays an important role in chaperone-mediated protein folding and shows predominant expression in the central nervous system. Sacsin expression is also detected in skeletal muscle and pancreas tissues. Sacsin contains seven nuclear localization signals, three coiled-coils and two leucine zipper motifs, in addition to the DnaJ motif and the hydrophobic domain contained within the C-terminal region of the protein. Defects in the SACS gene can cause autosomal recessive spastic ataxia of Charlevoix-Saguenay (ARSACS), an early onset neurodegenerative disease characterized by reduced motor-nerve velocity, absent sensory-nerve conduction and hypermyelination of retinal-nerve fibers. ARSACS is highly prevalent in the Charlevoix-Saguenay-Lac-Saint-Jean region of Quebec.

REFERENCES

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- Yamamoto, Y., et al. 2005. Novel compound heterozygous mutations in Sacsin-related ataxia. *J. Neurol. Sci.* 239: 101-104.
- Hara, K., et al. 2005. Sacsin-related autosomal recessive ataxia without prominent retinal myelinated fibers in Japan. *Mov. Disord.* 20: 380-382.
- Shimazaki, H., et al. 2005. A phenotype without spasticity in Sacsin-related ataxia. *Neurology* 64: 2129-2131.
- Okawa, S., et al. 2006. A novel Sacsin mutation in a Japanese woman showing clinical uniformity of autosomal recessive spastic ataxia of Charlevoix-Saguenay. *J. Neurol. Neurosurg. Psychiatr.* 77: 280-282.

CHROMOSOMAL LOCATION

Genetic locus: SACS (human) mapping to 13q12.12.

SOURCE

Sacsin (F-1) is a mouse monoclonal antibody raised against amino acids 781-1080 mapping within an internal region of Sacsin of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ 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.

PROTOCOLS

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

APPLICATIONS

Sacsin (F-1) is recommended for detection of Sacsin of 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 Sacsin siRNA (h): sc-61489, Sacsin shRNA Plasmid (h): sc-61489-SH and Sacsin shRNA (h) Lentiviral Particles: sc-61489-V.

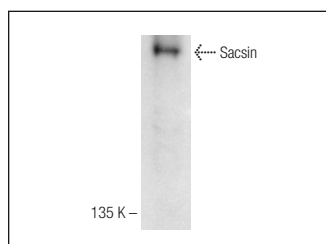
Molecular Weight of Sacsin: 437 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410.

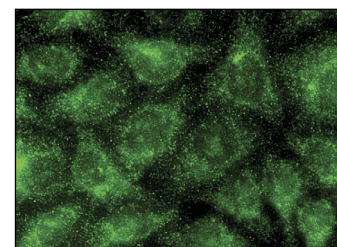
RECOMMENDED SUPPORT REAGENTS

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, 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). 3) Immunofluorescence: use m-IgGκ BP-FITC: 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



Sacsin (F-1): sc-365585. Western blot analysis of Sacsin expression in SK-N-SH whole cell lysate.



Sacsin (F-1): sc-365585. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

RESEARCH USE

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