SANTA CRUZ BIOTECHNOLOGY, INC.

Spartin (D-17): sc-49521

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Spartin is a protein that may be involved in microtublue dynamics and endosomal trafficking. The Spartin protein contains a microtubule interacting and trafficking (MIT) molecule domain and is ubiquitously expressed, with highest levels observed in adipose tissue. A frameshift mutation in the Spartin gene (SPG20) causes spastic paraplegia 20, also designated Troyer syndrome, an autosomal recessive form of hereditary spastic paraplegia (HSP). HSP is an inherited neurological disorder characterized by lower extremity weakness and stiffness due to a length-dependent, retrograde axonopathy of corticospinal motor neurons.

REFERENCES

1. Cross, H.E., et al. 1967. The Troyer syndrome. A recessive form of spastic paraplegia with distal muscle wasting. Arch. Neurol. 16: 473-485.
2. Neuhäuser, G., et al. 1976. Familial spastic paraplegia with distal muscle wasting in the Old Order Amish; atypical Troyer syndrome or new syndrome. Clin. Genet. 9: 315-323.
3. Patel, H., et al. 2002. SPG20 is mutated in Troyer syndrome, an hereditary spastic paraplegia. Nat. Genet. 31: 347-348.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 275900. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Ciccarelli, F.D., et al. 2003. The identification of a conserved domain in both Spartin and Spastin, mutated in hereditary spastic paraplegia. Genomics 81: 437-441.
6. Proukakis, C., et al. 2004. Troyer syndrome revisited. A clinical and radiological study of a complicated hereditary spastic paraplegia. J. Neurol. 251: 1105-1110.
7. Bakowska, J.C., et al. 2005. The Troyer syndrome (SPG20) protein Spartin interacts with Eps15. Biochem. Biophys. Res. Commun. 334: 1042-1048.

CHROMOSOMAL LOCATION

Genetic locus: SPG20 (human) mapping to 13q13.3; Spg20 (mouse) mapping to 3 C.

SOURCE

Spartin (D-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Spartin 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-49521 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.

APPLICATIONS

Spartin (D-17) is recommended for detection of Spartin 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).

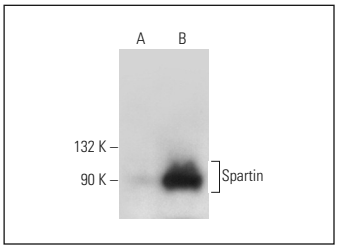
Spartin (D-17) is also recommended for detection of Spartin in additional species, including equine and canine.

Suitable for use as control antibody for Spartin siRNA (h): sc-61601, Spartin siRNA (m): sc-61602, Spartin siRNA (r): sc-270061, Spartin shRNA Plasmid (h): sc-61601-SH, Spartin shRNA Plasmid (m): sc-61602-SH, Spartin shRNA Plasmid (r): sc-270061-SH, Spartin shRNA (h) Lentiviral Particles: sc-61601-V, Spartin shRNA (m) Lentiviral Particles: sc-61602-V and Spartin shRNA (r) Lentiviral Particles: sc-270061-V.

Molecular Weight of Spartin: 73 kDa.

Positive Controls: Spartin (m): 293T Lysate: sc-123731.

DATA



Spartin (D-17): sc-49521. Western blot analysis of Spartin expression in non-transfected: sc-117752 (**A**) and mouse Spartin transfected: sc-123731 (**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 or our catalog for detailed protocols and support products.