**BACKGROUND**

The AAA protein family members share an ATPase domain and have roles in various cellular processes including intracellular motility, membrane trafficking, proteolysis, protein folding and organelle biogenesis. Spastin, a member of the AAA protein family, is a 616 amino acid protein and is involved in the function or assembly of nuclear protein complexes. The Spastin protein is expressed ubiquitously and localizes to the nucleus and the cytoplasm, where it may also be involved in microtubule dynamics. Mutations in the Spastin gene (SPAST, SPG4) cause the most common form of spastic paraplegia 4, an autosomal dominant form of hereditary spastic paraplegia (HSP). HSPs comprise a group of inherited neurological disorders characterized by spastic lower extremity weakness due to a length-dependent, retrograde axonopathy of corticospinal motor neurons. SPAST-specific mutations account for approximately 40% of all autosomal dominant HSPs.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Gene symbol: SPAST (human) mapping to 2p22.3; Spast (mouse) mapping to 17 E2.

**SOURCE**

Spastin (Sp 6C6) is a mouse monoclonal antibody raised against recombinant Spastin of human origin.

**PRODUCT**

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

**APPLICATIONS**

Spastin (Sp 6C6) is recommended for detection of Spastin of mouse, rat and human origin by Western Blotting (starting dilution 1:200), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).


Molecular Weight of Spastin long isofrom: 64-68 kDa.

Molecular Weight of Spastin short isoform: 55-60 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, PC-3 cell lysate: sc-2220 or NIH/3T3 whole cell lysate: sc-2210.

**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).


**DATA**

**SELECT PRODUCT CITATIONS**


**STORAGE**

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

**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.