

Strumpellin (P-16): sc-87444

BACKGROUND

Strumpellin, also known as SPG8 or KIAA0196, is a 1,159 amino acid ubiquitously expressed protein that is present at higher levels in skeletal muscle and prostate cancer cells, suggesting a role in tumorigenesis. Defects in the gene encoding Strumpellin are the cause of autosomal dominant spastic paraplegia type 8 (SPG8), characterized by the slow and gradual weakening of the legs, as well as muscle spasms, stiffness and incontinence. The gene encoding Strumpellin maps to human chromosome 8, which consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, Trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that map to chromosome 8.

REFERENCES

- Hedera, P., Rainier, S., Alvarado, D., Zhao, X., Williamson, J., Otterud, B., Leppert, M. and Fink, J.K. 1999. Novel locus for autosomal dominant hereditary spastic paraplegia, on chromosome 8q. *Am. J. Hum. Genet.* 64: 563-569.
- Wildenauer, D.B. and Schwab, S.G. 1999. Chromosomes 8 and 10 workshop. *Am. J. Med. Genet.* 88: 239-243.
- Porkka, K.P., Tammela, T.L., Vessella, R.L. and Visakorpi, T. 2004. Rad21 and KIAA0196 at 8q24 are amplified and overexpressed in prostate cancer. *Genes Chromosomes Cancer* 39: 1-10.
- van Duin, M., van Marion, R., Vissers, K., Watson, J.E., van Weerden, W.M., Schröder, F.H., Hop, W.C., van der Kwast, T.H., Collins, C. and van Dekken, H. 2005. High-resolution array comparative genomic hybridization of chromosome arm 8q: evaluation of genetic progression markers for prostate cancer. *Genes Chromosomes Cancer* 44: 438-449.
- Valdmanis, P.N., Meijer, I.A., Reynolds, A., Lei, A., MacLeod, P., Schlesinger, D., Zatz, M., Reid, E., Dion, P.A., Drapeau, P. and Rouleau, G.A. 2007. Mutations in the KIAA0196 gene at the SPG8 locus cause hereditary spastic paraplegia. *Am. J. Hum. Genet.* 80: 152-161.

CHROMOSOMAL LOCATION

Genetic locus: KIAA0196 (human) mapping to 8q24.13; E430025E21Rik (mouse) mapping to 15 D1.

SOURCE

Strumpellin (P-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of Strumpellin of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, ready P₁ (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Strumpellin (P-16) is recommended for detection of Strumpellin 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).

Strumpellin (P-16) is also recommended for detection of Strumpellin in additional species, including equine, canine, bovine and avian.

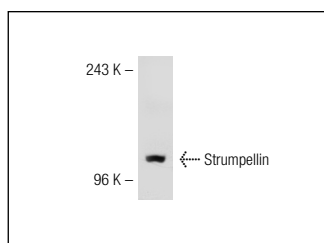
Suitable for use as control antibody for Strumpellin siRNA (h): sc-77748, Strumpellin shRNA Plasmid (h): sc-77748-SH and Strumpellin shRNA (h) Lentiviral Particles: sc-77748-V.

Molecular Weight of Strumpellin: 134 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Strumpellin (P-16): sc-87444. Western blot analysis of Strumpellin expression in DU 145 whole cell lysate.

RESEARCH USE

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

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.