SANTA CRUZ BIOTECHNOLOGY, INC.

Strumpellin (C-14): sc-87442

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 8q24.13.

CHROMOSOMAL LOCATION

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

SOURCE

Strumpellin (C-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-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 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

Strumpellin (C-14) 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 (C-14) is also recommended for detection of Strumpellin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Strumpellin siRNA (h): sc-77748, E430025E21Rik siRNA (m): sc-143260, Strumpellin shRNA Plasmid (h): sc-77748-SH, E430025E21Rik shRNA Plasmid (m): sc-143260-SH, Strumpellin shRNA (h) Lentiviral Particles: sc-77748-V and E430025E21Rik shRNA (m) Lentiviral Particles: sc-143260-V.

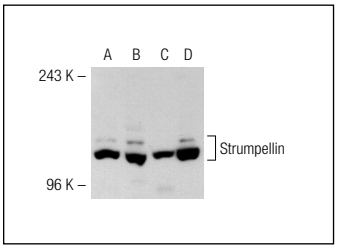
Molecular Weight of Strumpellin: 134 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Ramos cell lysate: sc-2216 or Hep G2 cell lysate: sc-2227.

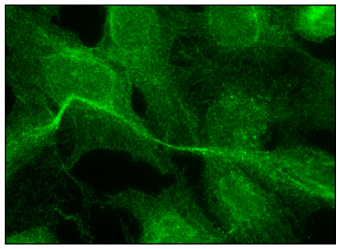
RECOMMENDED SECONDARY REAGENTS

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 (C-14): sc-87442. Western blot analysis of Strumpellin expression in HeLa (**A**), Ramos (**B**), Hep G2 (**C**) and DU 145 (**D**) whole cell lysates.



Strumpellin (C-14): sc-87442. Immunofluorescence staining of methanol-fixed Hep G2 cells showing cytoskeletal localization.

SELECT PRODUCT CITATIONS

1. Pan, Y.F., et al. 2010. The ulcerative colitis marker protein WAFL interacts with accessory proteins in endocytosis. Int. J. Biol. Sci. 6: 163-171.
2. Ropers, F., et al. 2011. Identification of a novel candidate gene for non-syndromic autosomal recessive intellectual disability: the WASH complex member SWIP. Hum. Mol. Genet. 20: 2585-2590.
3. Freeman, C., et al. 2013. The hereditary spastic paraplegia protein strumpellin: characterisation in neurons and of the effect of disease mutations on WASH complex assembly and function. Biochim. Biophys. Acta 1832: 160-173.

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.