# synphilin-1 (V-19): sc-34192



The Power to Question

## **BACKGROUND**

synphilin-1 ( $\alpha$  synuclein interacting protein, SNCAIP) is a 919 amino acid protein that associates with  $\alpha$  synuclein and promotes the formation of cytosolic inclusions in neuronal cells. The synuclein family members, including  $\alpha$ -synuclein and  $\beta$ -synuclein, are predominantly expressed in the brain where they influence synaptic regulation and neuronal plasticity. synphilin-1 contains modular protein domains, such as ankyrin-like repeats and a coiled-coil domain. While both  $\alpha$ -synuclein and synphilin-1 are co-expressed in Lewy bodies of patients with Parkinson's disease (PD), only mutations in the gene for  $\alpha$ -synuclein have been determined to confer pathogenicity.

# **REFERENCES**

- Ueda, K., Fukushima, H., Masliah, E., Xia, Y., Iwai, A., Yoshimoto, M., Otero, D.A., Kondo, J., Ihara, Y. and Saitoh, T. 1993. Molecular cloning of cDNA encoding an unrecognized component of amyloid in Alzheimer disease. Proc. Natl. Acad. Sci. USA 90: 11282-11286.
- 2. Jakes, R., Spillantini, M. and Goedert, M. 1994. Identification of two distinct synucleins from human brain. FEBS Lett. 345: 27-32.
- Engelender, S., Kaminsky, Z., Guo, X., Sharp, A. H., Amaravi, R.K., Kleiderlein, J.J., Margolis, R.L., Troncoso, J.C., Lanahan, A.A., Worley, P.F., Dawson, V.L., Dawson, T.M. and Ross, C.A. 1999. Synphilin-1 associates with α-synuclein and promotes the formation of cytosolic inclusions. Nat. Genet. 22: 110-114.
- Wakabayashi, K., Engelender, S., Yoshimoto, M., Tsuji, S., Ross, C.A. and Takahashi, H. 2000. Synphilin-1 is present in Lewy bodies in Parkinson's disease. Ann. Neurol. 47: 521-523.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 603779. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Kawamata, H., McLean, P. J., Sharma, N. and Hyman, B.T. 2001. Interaction
  of α-synuclein and synphilin-1: effect of Parkinson's disease-associated
  mutations. J. Neurochem. 77: 929-934.
- Farrer, M., Destee, A., Levecque, C., Singleton, A., Engelender, S., Becquet, E., Mouroux, V., Richard, F., Defebvre, L., Crook, R., Hernandez, D., Ross, C. A., Hardy, J., Amouyel, P. and Chartier-Harlin, M.C. 2001. Genetic analysis of synphilin-1 in familial Parkinson's disease. Neurobiol. Dis. 8: 317-323.

# **CHROMOSOMAL LOCATION**

Genetic locus: SNCAIP (human) mapping to 5q23.2; Sncaip (mouse) mapping to 18 D1.

# SOURCE

synphilin-1 (V-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of synphilin-1 of mouse origin.

# **STORAGE**

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

#### **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-34192 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

synphilin-1 (V-19) is recommended for detection of synphilin-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

synphilin-1 (V-19) is also recommended for detection of synphilin-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for synphilin-1 siRNA (h): sc-43434, synphilin-1 siRNA (m): sc-45293, synphilin-1 shRNA Plasmid (h): sc-43434-SH, synphilin-1 shRNA Plasmid (m): sc-45293-SH, synphilin-1 shRNA (h) Lentiviral Particles: sc-43434-V and synphilin-1 shRNA (m) Lentiviral Particles: sc-45293-V.

Molecular Weight of synphilin-1: 100 kDa.

Positive Controls: Mouse brain extract: sc-2253.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

# **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.

**Santa Cruz Biotechnology, Inc.** 1.800.457.3801 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**