

synphilin-1 (K-18): sc-15452

BACKGROUND

Synphilin-1 (α synuclein interacting protein, SNCAIP) is a 919-amino acid protein that associates with α synuclein and promotes the formation of cytosolic inclusions in neuronal cells. The synuclein family members, including α -synuclein and β -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 α -synuclein and synphilin-1 are co-expressed in Lewy bodies of patients with Parkinson's disease (PD), only mutations in the gene for α -synuclein have been determined to confer pathogenicity.

REFERENCES

1. Ueda, K., et al. 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., et al. 1994. Identification of two distinct synucleins from human brain. FEBS Lett. 345: 27-32.
3. Engelender, S., et al. 1999. Synphilin-1 associates with α -synuclein and promotes the formation of cytosolic inclusions. Nat. Genet. 22: 110-114.
4. 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/>
5. Wakabayashi, K., et al. 2000. Synphilin-1 is present in Lewy bodies in Parkinson's disease. Ann. Neurol. 47: 521-523.
6. Kawamata, H., et al. 2001. Interaction of α -synuclein and synphilin-1: effect of Parkinson's disease-associated mutations. J. Neurochem. 77: 929-934.
7. Farrer, M., et al. 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.

SOURCE

synphilin-1 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of synphilin-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-15452 P, (100 μ g 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

synphilin-1 (K-18) is recommended for detection of synphilin-1 of 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), immunohistochemistry (including paraffin-embedded sections) (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 (K-18) is also recommended for detection of synphilin-1 in additional species, including equine and canine.

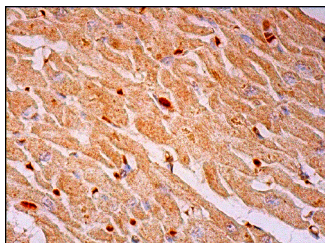
Suitable for use as control antibody for synphilin-1 siRNA (h): sc-43434, synphilin-1 shRNA Plasmid (h): sc-43434-SH and synphilin-1 shRNA (h) Lentiviral Particles: sc-43434-V.

Molecular Weight of synphilin-1: 100 kDa.

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. 3) Immunohistochemistry: use ImmunoCruz[™]: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



synphilin-1 (K-18): sc-15452. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

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.