

# synphilin-1 (F-9): sc-365741

## 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 coexpressed 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

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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  $\alpha$ -synuclein and promotes the formation of cytosolic inclusions. *Nat. Genet.* 22: 110-114.
4. Wakabayashi, K., et al. 2000. Synphilin-1 is present in Lewy bodies in Parkinson's disease. *Ann. Neurol.* 47: 521-553.
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/>
6. Kawamata, H., et al. 2001. Interaction of  $\alpha$ -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; Sncaip (mouse) mapping to 18 D1.

## SOURCE

synphilin-1 (F-9) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of synphilin-1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

synphilin-1 (F-9) is available conjugated to agarose (sc-365741 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365741 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365741 PE), fluorescein (sc-365741 FITC), Alexa Fluor® 488 (sc-365741 AF488), Alexa Fluor® 546 (sc-365741 AF546), Alexa Fluor® 594 (sc-365741 AF594) or Alexa Fluor® 647 (sc-365741 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365741 AF680) or Alexa Fluor® 790 (sc-365741 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

synphilin-1 (F-9) is recommended for detection of synphilin-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

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.

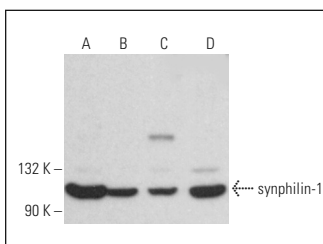
Molecular Weight of synphilin-1: 100 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, WEHI-231 whole cell lysate: sc-2213 or C6 whole cell lysate: sc-364373.

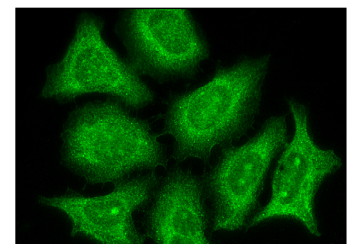
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



synphilin-1 (F-9): sc-365741. Western blot analysis of synphilin-1 expression in U-87 MG (A), C6 (B), WEHI-231 (C) and C2C12 (D) whole cell lysates.



synphilin-1 (F-9): sc-365741. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## 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.

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