

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

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 coexpressed 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. 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/>

CHROMOSOMAL LOCATION

Genetic locus: SNCAIP (human) mapping to 5q23.2; Sncap (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 μ g IgG₁ 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 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365741 HRP), 200 μ 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 μ 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 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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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 (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 μ g per 100-500 μ 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.

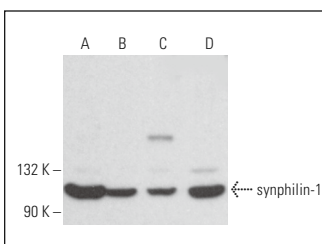
Molecular Weight of synphilin-1: 100 kDa.

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

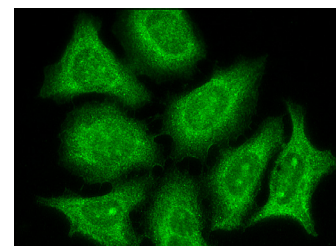
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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 κ BP-FITC: sc-516140 or m-IgG κ 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.

SELECT PRODUCT CITATIONS

1. Mann, S., et al. 2022. Antitumor activity of choerospondias axillaris fruit extract by regulating the expression of SNCAIP and SNCA on MDA-MB-231 cells. *Asian Pac. J. Cancer Prev.* 23: 1577-1586.

RESEARCH USE

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