**α-synuclein (LB 509): sc-58480**

**BACKGROUND**

The synuclein family members, including α-synuclein (also designated NACP for non-β-Amyloid component) and β-synuclein, are predominantly expressed in the brain and are speculated to be involved in synaptic regulation and neuronal plasticity. α-synuclein is localized to neuronal cell bodies and synapses. α-synuclein was first identified as a component of Alzheimer’s disease amyloid plaques. Abnormal platelet function in Alzheimer’s disease has been demonstrated. During megakaryocytic differentiation α-synuclein has been found to be upregulated, while β-synuclein is downregulated, indicating that coordinate expression of synucleins may be important during hematopoietic cell differentiation. A mutant form of α-synuclein has been found in patients with early onset Parkinson’s disease.

**CHROMOSOMAL LOCATION**

Genetic locus: SNCA (human) mapping to 4q22.1.

**SOURCE**

α-synuclein (LB 509) is a mouse monoclonal antibody raised against Lewy bodies of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

α-synuclein (LB 509) is available conjugated to agarose (sc-58480 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-516102 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-58480 PE), fluorescein (sc-58480 FITC), Alexa Fluor® 488 (sc-58480 AF488), Alexa Fluor® 546 (sc-58480 AF546), Alexa Fluor® 594 (sc-58480 AF594) or Alexa Fluor® 647 (sc-58480 AF647), 200 µg/ml, for WB (RGB), IF, IHQ(P) and FCM; and to either Alexa Fluor® 680 (sc-58480 AF680) or Alexa Fluor® 790 (sc-58480 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

α-synuclein (LB 509) is recommended for detection of α-synuclein of 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for α-synuclein siRNA (h): sc-29619, α-synuclein shRNA Plasmid (h): sc-29619-SH and α-synuclein shRNA (h) Lentiviral Particles: sc-29619-V.

Molecular Weight of α-synuclein: 19 kDa.

Positive Controls: α-synuclein (h): 293T Lysate: sc-111729, SH-SY5Y cell lysate: sc-3812 or IMR-32 cell lysate: sc-24982.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG HRP: sc-516102 or m-IgG HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-51621 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 HRP: sc-516140 or m-IgG HRP: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG HRP: sc-516102 with DAB: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

**DATA**

α-synuclein (LB 509): sc-58480. Western blot analysis of α-synuclein expression in non-transfected: sc-117752(A) and human α-synuclein transfected: sc-111729 (B) 293T whole cell lysates.

**SELECT PRODUCT CITATIONS**


**STORAGE**

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

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.