

# $\alpha$ -synuclein (h): 293T Lysate: sc-111729

## BACKGROUND

The synuclein family members, including  $\alpha$ -synuclein (also designated NACP for non- $\beta$  Amyloid component) and  $\beta$ -synuclein, are predominantly expressed in the brain and are speculated to be involved in synaptic regulation and neuronal plasticity.  $\alpha$ -synuclein is localized to neuronal cell bodies and synapses.  $\alpha$ -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  $\alpha$ -synuclein has been found to be upregulated, while  $\beta$ -synuclein is downregulated, indicating that coordinate expression of synucleins may be important during hematopoietic cell differentiation. A mutant form of  $\alpha$ -synuclein has been found in patients with early onset Parkinson's disease.

## REFERENCES

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2. Jakes, R., Spillantini, M.G. and Goedert, M. 1994. Identification of two distinct synucleins from human brain. *FEBS Lett.* 345: 27-32.
3. Iwai, A., Masliah, E., Yoshimoto, M., Ge, N., Flanagan, L., de Silva, H.A., Kittel, A. and Saitoh, T. 1995. The precursor protein of non-A  $\beta$  component of Alzheimer's disease amyloid is a presynaptic protein of the central nervous system. *Neuron* 14: 467-475.
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5. Polymeropoulos, M.H., Lavedan, C., Leroy, E., Ide, S.E., Dehejia, A., Dutra, A., Pike, B., Root, H., Rubenstein, J., Boyer, R., Stenroos, E.S., Chandrasekharappa, S., Athanassiadou, A., et al. 1997. Mutation in the  $\alpha$ -synuclein gene identified in families with Parkinson's disease. *Science* 276: 2045-2047.

## CHROMOSOMAL LOCATION

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

## PRODUCT

$\alpha$ -synuclein (h): 293T Lysate represents a lysate of human  $\alpha$ -synuclein transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

$\alpha$ -synuclein (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive  $\alpha$ -synuclein antibodies. Recommended use: 10-20  $\mu$ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

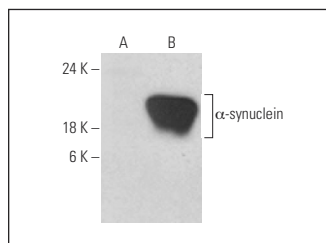
$\alpha$ -synuclein (LB 509): sc-58480 is recommended as a positive control antibody for Western Blot analysis of enhanced human  $\alpha$ -synuclein expression in  $\alpha$ -synuclein transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

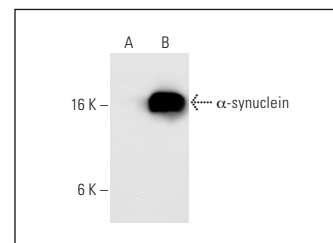
To ensure optimal results, the following support reagents are recommended:

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.

## DATA



$\alpha$ -synuclein (LB 509) HRP: sc-58480 HRP. Direct western blot analysis of  $\alpha$ -synuclein expression in non-transfected: sc-117752 (A) and human  $\alpha$ -synuclein transfected: sc-111729 (B) 293T whole cell lysates.



$\alpha$ / $\beta$ -synuclein (386): sc-69699. Western blot analysis of  $\alpha$ -synuclein expression in non-transfected: sc-117752 (A) and human  $\alpha$ -synuclein transfected: sc-111729 (B) 293T whole cell lysates.

## RESEARCH USE

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