

$\alpha/\beta/\gamma$ -synuclein (FL-140): sc-10717

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 was 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.

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.

SOURCE

$\alpha/\beta/\gamma$ -synuclein (FL-140) is a rabbit polyclonal antibody raised against amino acids 1-140 representing full length $\alpha/\beta/\gamma$ -synuclein 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.

APPLICATIONS

$\alpha/\beta/\gamma$ -synuclein (FL-140) is recommended for detection of α -synuclein, β -synuclein and γ -synuclein of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

$\alpha/\beta/\gamma$ -synuclein (FL-140) is also recommended for detection of α -synuclein, β -synuclein and γ -synuclein in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of $\alpha/\beta/\gamma$ -synuclein: 19 kDa.

Positive Controls: mouse brain extract: sc-2253 or IMR-32 cell lysate: sc-2409.

STORAGE

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

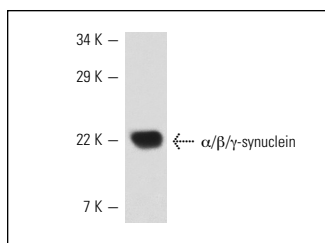
PROTOCOLS

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

RESEARCH USE

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

DATA



$\alpha/\beta/\gamma$ -synuclein (FL-140): sc-10717. Western blot analysis of $\alpha/\beta/\gamma$ -synuclein expression in mouse brain extract.

SELECT PRODUCT CITATIONS

1. Negro, A., et al. 2002. Multiple phosphorylation of α -synuclein by protein tyrosine kinase Syk prevents eosin-induced aggregation. FASEB J. 16: 210-212.
2. El-Agnaf, O.M., et al. 2004. A strategy for designing inhibitors of α -synuclein aggregation and toxicity as a novel treatment for Parkinson's disease and related disorders. FASEB J. 18: 1315-1317.
3. El-Agnaf, O.M., et al. 2006. Detection of oligomeric forms of α -synuclein protein in human plasma as a potential biomarker for Parkinson's disease. FASEB J. 20: 419-425.
4. Tokuda, T., et al. 2006. Decreased α -synuclein in cerebrospinal fluid of aged individuals and subjects with Parkinson's disease. Biochem. Biophys. Res. Commun. 349: 162-166.
5. Salem, S.A., et al. 2007. An investigation into the lipid-binding properties of α -, β - and γ -synucleins in human brain and cerebrospinal fluid. Brain Res. 1170: 103-111.
6. Noguchi-Shinohara, M., et al. 2009. CSF α -synuclein levels in dementia with Lewy bodies and Alzheimer's disease. Brain Res. 1251: 1-6.
7. Foulds, P.G., et al. 2011. Phosphorylated α -synuclein can be detected in blood plasma and is potentially a useful biomarker for Parkinson's disease. FASEB J. 25: 4127-4137.
8. Fauvet, B., et al. 2012. α -synuclein in central nervous system and from erythrocytes, mammalian cells, and *Escherichia coli* exists predominantly as disordered monomer. J. Biol. Chem. 287: 15345-15364.


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Try α/β -synuclein (F-11): sc-514908 or γ -synuclein (1H10D2): sc-65979, our highly recommended monoclonal alternatives to $\alpha/\beta/\gamma$ -synuclein (FL-140).