

Rudolf-Wissell-Str. 28 37079 Göttingen, Germany Phone: +49 551-50556-0 Fax: +49 551-50556-384 E-mail: sales@sysy.com Web: www.sysy.com

a Synuclein

Cat.No. 128 102; Polyclonal rabbit antibody, 200 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	200 μl antiserum, lyophilized. For reconstitution add 200 μl $H_2O,$ then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: not recommended ICC: 1 : 500 IHC: 1 : 500 IHC-P/FFPE: 1 : 500
Immunogen	Recombinant protein corresponding to AA 1 to 140 from human α-Synuclein (UniProt Id: P37840)
Reactivity	Reacts with: rat (P37377), mouse (O55042). No signal: zebrafish. Other species not tested yet.
Specificity	Specific for α synuclein with weak cross reactivity to β synuclein.

TO BE USED IN VITRO / FOR RESEARCH ONLY NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Synuclein proteins are produced by three genes. They share structural resemblance to apolipoproteins, but are abundant in the neuronal cytosol and present in enriched amounts at presynaptic terminals.

Synucleins have been specifically implicated in three diseases: Alzheimer's (AD), Parkinson's (PD) and breast cancer. In AD, a peptide derived from α-synuclein forms an intrinsic component of plaque amyloid. In PD, an α-synuclein allele is genetically linked to several independent familial cases, and the protein appears to accumulate in Lewy bodies. In breast cancer, increased expression of γ-synuclein correlates with disease progression.

In songbirds, a-synuclein expression is correlated with plasticity in the developing song control system. Although the normal function of synucleins is unknown, a role in synaptic plasticity seems likely.

Selected References SYSY Antibodies

Impaired synapse function during postnatal development in the absence of CALEB, an EGF-like protein processed by neuronal activity.

Jüttner R, Moré MI, Das D, Babich A, Meier J, Henning M, Erdmann B, Mu Ller EC, Otto A, Grantyn R, Rathjen FG, et al. Neuron (2005) 46(2): 233-45. **WB**

Selected General References

Genetics of Parkinson's disease. Polymeropoulos MH Annals of the New York Academy of Sciences (2000) 920: 28-32.

Depression in alpha-synucleinopathies: prevalence, pathophysiology and treatment. Stefanova N, Seppi K, Scherfler C, Puschban Z, Wenning GK Journal of neural transmission. Supplementum (2000) (60): 335-43.

The synucleins: a family of proteins involved in synaptic function, plasticity, neurodegeneration and disease. Clayton DF, George JM Trends in neurosciences (1998) 21(6): 249-54.

Filamentous nerve cell inclusions in neurodegenerative diseases. Goedert M, Spillantini MG, Davies SW Current opinion in neurobiology (1998) 8(5): 619-32.

Genetic classification of primary neurodegenerative disease Hardy J, Gwinn-Hardy K Science (New York, N.Y.) (1998) 282(5391): 1075-9.

The synuclein family. Lavedan C Genome research (1998) 8(9): 871-80.

New developments in understanding the etiology of Parkinson's disease and in its treatment. Lozano AM, Lang AE, Hutchison WD, Dostrovsky JO Current opinion in neurobiology (1998) 8(6): 783-90.