



PhosphoSolutions®
Antibodies that work™

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Anti-alpha Synuclein

Catalog Number: 107-ASYN **Size:** 100 µL **Clone:** 3H9 **Isotype:** IgG

Product Description: Mouse monoclonal antibody

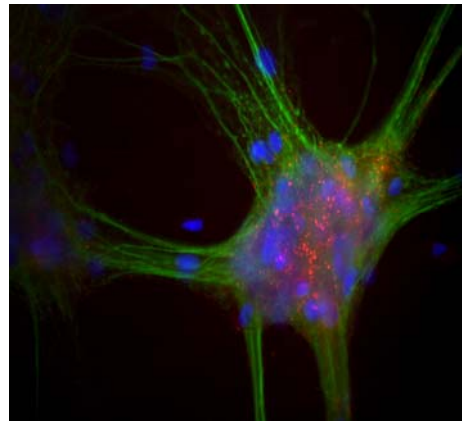
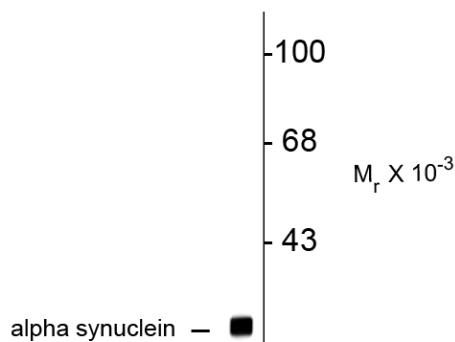
Applications: **WB:** 1:1,000 **IF:** 1:500

Antigen: Full length human alpha synuclein expressed in *E. Coli*.

Species reactivity: The antibody has been directly tested for reactivity in human and rodent. It is expected that it will work on other mammal tissues.

Biological Significance: Alpha-synuclein is a presynaptic neuronal protein that is thought to be involved in the formation of SNARE complexes. Most significantly, aggregated alpha-synuclein is one of the major components found in the Lewy bodies that occur in Parkinson's disease (PD) and other neurodegenerative disorders (Okochi et al., 2000). Early onset Parkinson's disease may be caused by a duplication or triplication of one of the alpha synuclein genes (Chartier-Harlin MC et al., 2004 and Singleton, AB et al., 2005). Alpha-synuclein is also found in the Lewy bodies of patients with diffuse Lewy body disease and inclusions in glial cells in the brains of patients with multiple system atrophy (MSA) and amyotrophic lateral sclerosis (ALS).

Anti-alpha Synuclein



Left: Western blot of rat brain lysate showing specific immunolabeling of the ~ 15k alpha synuclein protein. **Right:** Mixed neuron-glia cultures stained with alpha-synuclein (red) and chicken MAP2 (cat.# 1100-MAP2) (green). The alpha-synuclein antibody stains vesicular structures, the perikarya and processes of the neurons in this image.

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WB = Western Blot **IF** = Immunofluorescence **IHC** = Immunohistochemistry **IP** = Immunoprecipitation

Packaging: 100 ul liquid. Contains 10 mM sodium azide.

Storage and Stability: Store at -20°C in undiluted aliquots; stable for at least one year. Avoid freeze/thaw cycles.

Shipment: Domestic - Blue Ice; International - Blue Ice or Dry Ice.

For Research Use Only.

Purification Method: Mouse ascites fluid.

Antibody Specificity: Specific for the ~15kDa alpha Synuclein protein.

Quality Control Tests: Western blots performed on each lot.

References:

Okochi M, Walter J, Koyama A, Nakajo S, Baba M, Iwatsubo T, Meijer L, Kahle PJ, Haass C (2000) Constitutive phosphorylation of the Parkinson's disease associated alpha-synuclein. J Biol Chem Jan 7;275(1): 390-7.

Chartier-Harlin, MC. et al. Alpha-synuclein locus duplication as a cause of familial Parkinson's disease. Lancet 364: 1167-1169 (2004).

Singleton, AB et al. Alpha-synuclein locus triplication causes Parkinson's disease. Science 302: 841 (2003).

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