

## CERTIFICATE OF ANALYSIS

**Important Note:** Centrifuge before opening to ensure complete recovery of vial contents.

**Catalog #:** Q06604M **Lot #:** 9E12920  
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**Description:** MAb to Synuclein Alpha  
Monoclonal Antibody to Human Synuclein alpha.

**Specificity:** Reacts well with alpha-synuclein in Western blots and frozen and formalin-fixed/paraffin-embedded tissue sections. Recognizes human alpha-synuclein. Synuclein-alpha is the major component of Lewy bodies and Lewy neuritis in sporadic PD, dementia with Lewy Bodies and Lewy Body variant of AD. Lewy bodies are composed of truncated and phosphorylated intermediate neurofilament proteins, alpha synuclein, ubiquitin and associated enzymes. The synuclein phosphoproteins (15-20 kDa) are small highly conserved proteins in vertebrates. The synuclein family includes alpha and beta synucleins and loosely related gamma-synuclein and synoretin. The expression is abundant in neurons and typically localized at presynaptic terminals.

**Host Animal:** Mouse **Isotype:** IgG<sub>1</sub>

**Source:** Tissue Culture Supernatant

**Immunogen:** Purified *E. coli* produced human alpha-synuclein.

**Format:** Purified, Liquid

**Purification:** Protein A Chromatography

**Concentration:** 1 mg/mL

**Buffer:** Phosphate Buffered Saline

**Preservative:** None

**Applications:** Western/Dot Blot (1:100 – 1:10,000).  
ELISA  
Immunohistochemistry: (1:100 – 1:1,000) frozen and formalin-fixed paraffin-embedded tissues (no formic acid, enzyme or HIER required).  
Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded.

**Storage:** Store at 2 to 8°C.

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**Safety Note(s):** Refer to the appropriate Safety Data Sheet (SDS) for additional information.

**References:**

The references listed below are for research purposes only:

1. Lucking, C.B., et al., (2000), "Alpha-synuclein and Parkinson's disease", Cell Mol. Life Sci., **57**(13-14): 1894–1908.
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4. Kahle, P.J., et al., (2000), "Physiology and pathophysiology of alpha-synuclein. Cell culture and transgenic animal models based on a Parkinson's disease-associated protein", Ann N.Y. Acad. Sci., **920**:33–41.
5. Polymeropoulos, M.H., (2000), "Genetics of Parkinson's disease", Ann. N.Y. Acad. Sci., **920**: 28–32.
6. Spillantini, M.G., et al., (2000), "The alpha-synucleinopathies: Parkinson's disease, dementia with Lewy bodies and multiple system atrophy", Ann. N.Y. Acad. Sci., **920**: 16–27.
7. McKeith, I.G., et al., (2000), "Clinical Lewy body syndromes", Ann. N.Y. Acad. Sci., **920**: 1–8.
8. Braak, H., et al., (2000), "Pathoanatomy of Parkinson's disease", J. Neurology, **247** Suppl., 2: II3–10.
9. Duda, J.E., et al., (2000), "Neuropathology of synuclein aggregates", J. Neuroscience Res., **61**(2): 121–127.
10. Munoz, D.G., (1999), "Stains for the differential diagnosis of degenerative dementias", Biotech. Histochem., **74**(6): 311–320.
11. Schulz, J.B., et al., (1999), "Molecular pathogenesis of movement disorders: are protein aggregates a common link in neuronal degeneration?", Curr. Opin. Neurol., **12**(4): 433–439.
12. Hashimoto, M., et al., (1999), "Alpha-synuclein in Lewy body disease and Alzheimer's disease", Brain Pathol., **9**(4): 707–720.
13. Clayton, D.F., et al., (1999), "Synucleins in synaptic plasticity and neurodegenerative disorders", J. Neurosci. Res., **59**(1): 120–129.

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