

HRP anti- α -Synuclein, 34-45 Antibody

Catalog# / Size	849103 / 25 μ g 849104 / 100 μ g
Clone	A15110D
Regulatory Status	RUO
Other Names	Synuclein alpha-140, non-A4 component of amyloid, alpha-synuclein, isoform NACP140, non-amyloid beta component (NAP)
Isotype	Mouse IgG1, κ
Description	α -synuclein is expressed principally in the nervous system, but it is also produced in other tissues, including the skin. In the brain, the protein is primarily neuronal, but it is also present in glia. Neuronal α -synuclein is concentrated in presynaptic nerve terminals, interacts with plasma membrane phospholipids, and is also present in nuclei and mitochondria. At least three isoforms of α -synuclein are produced through alternative splicing. The most common isoform is a 140 amino acid-long transcript. Other isoforms include, α -synuclein-126, lacking residues 41-54; and α -synuclein-112, which lacks residues 103-130. α -synuclein's physiological role is poorly understood, but the protein has been implicated in regulating dopamine release and transport, synaptic vesicle clustering, and functioning as a SNARE-complex chaperone. α -synuclein fibrils are a major component of the intracellular Lewy bodies that are associated with Parkinson's disease, Lewy body dementia, and multiple system atrophy.

Product Details

Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	KLH-conjugated α -synuclein synthetic peptide that incorporated amino acids 34-45.
Formulation	This antibody is provided in 50% glycerol in aqueous buffered solutions with preservatives.
Preparation	The antibody was purified by affinity chromatography and conjugated with HRP under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	Upon receipt, the antibody solution should be stored undiluted at -20°C, and protected from prolonged exposure to light.
Application	IHC-P - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by formalin-fixed paraffin-embedded immunohistochemical staining. For immunohistochemistry, a concentration range of 5.0 - 10 μ g/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	By ELISA, this antibody cross-reacts with β -synuclein.
RRID	AB_2734624 (BioLegend Cat. No. 849103) AB_2734625 (BioLegend Cat. No. 849104)

Antigen Details

Structure	α -synuclein's canonical isoform is a 140 amino acid protein with an apparent molecular mass of 14 kD.
Distribution	Tissue distribution: Primarily nervous system, but lower expression in other tissues such as blood and skin.

Cellular distribution: cytoskeleton, cytosol, lysosome, mitochondria, nucleus, plasma membrane, and extracellular.

Biology Area Cell Biology, Neurodegeneration, Neuroscience, Protein Misfolding and Aggregation

Molecular Family α -Synuclein, Phospho-Proteins

Antigen References

1. Mor DE, *et al.* 2016. *Neurobiol. Dis.* 88:66.
2. Jucker M, Walker LC. 2013. *Nature.* 501(7465):45.
3. Bartels T, *et al.* 2011. *Nature.* 477(7362): 107.
4. Devine MJ, *et al.* 2011. *Mov. Disord.* 26:2160.
5. Mahul-Mellier AL, *et al.* 2014. *Hum. Mol. Genet.* 23(11):2858.

Gene ID [6622](#)

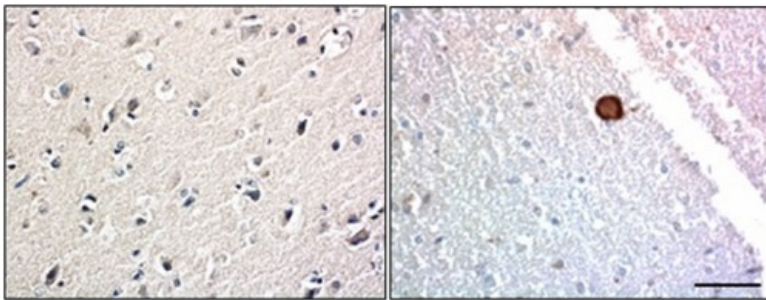
Related Protocols

[Immunohistochemistry Protocol for Paraffin-Embedded Sections](#)

Other Formats

Purified anti- α -Synuclein, 34-45, HRP anti- α -Synuclein, 34-45

Product Data



IHC staining of HRP anti- α -Synuclein, 34-45 antibody (clone A15110D) on formalin-fixed paraffin-embedded normal (left panel) and Parkinson's disease (right panel) human brain tissues. Following antigen retrieval using 88% formic acid, the tissues were incubated with 5.0 μ g/mL of the primary antibody for 1 hour at room temperature. DAB was used for detection followed by hematoxylin and bluing solution counterstaining, according to the protocol provided. The images were captured with a 40X objective. Scale bar: 50 μ m

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