Product Datasheet

alpha-Synuclein Antibody (2A7) - BSA Free
NBP1-05194

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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Publications: 9

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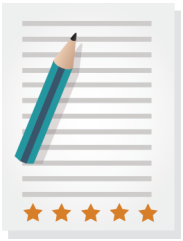
Updated 2/21/2025 v.20.1



NBP1-05194

alpha-Synuclein Antibody (2A7) - BSA Free

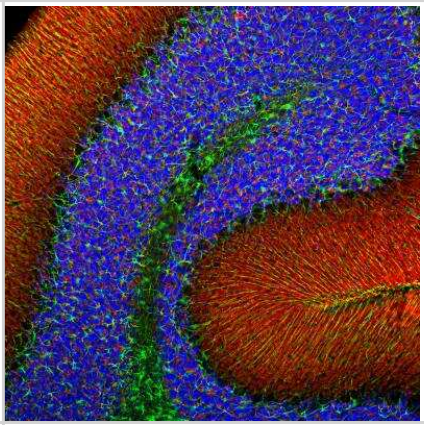
Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	2A7
Preservative	0.035% Sodium Azide
Isotype	IgG1
Purity	Immunogen affinity purified
Buffer	50% PBS, 50% glycerol
Target Molecular Weight	15 kDa

Product Description	
Host	Mouse
Gene ID	6622
Gene Symbol	SNCA
Species	Human, Mouse, Rat, Porcine, Bovine
Immunogen	This alpha-Synuclein Antibody (2A7) was developed against full length human recombinant protein with the epitope from amino acids 61-95.

Product Application Details	
Applications	Western Blot, Simple Western, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry Free-Floating
Recommended Dilutions	Western Blot 1:1000, Simple Western 1:2000, Flow Cytometry 2-5ug/0.1x10^6 cells, Immunohistochemistry 1:1000, Immunocytochemistry/ Immunofluorescence 1:1000, Immunohistochemistry Free-Floating 1:1000
Application Notes	This alpha-Synuclein antibody is useful for Immunocytochemistry/Immunofluorescence and Western Blot. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. See Simple Western Antibody Database for Simple Western validation: Tested in Human Brain lysate 0.05 mg/mL, separated by Size, antibody dilution of 1:2000, apparent MW was 20 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.

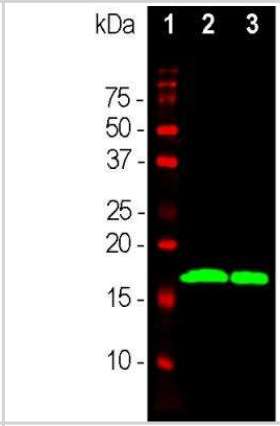
Images

Immunohistochemistry Free-Floating: alpha-Synuclein Antibody (2A7) [NBP1-05194] - Analysis of rat cerebellum section costained with mouse mAb to alpha-synuclein NBP1-05194, dilution 1:1,000, in red, and rabbit pAb to GFAP, dilution 1:5,000 in green. The blue is DAPI staining of nuclear DNA. Following transcardial perfusion of rat with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45uM, and free-floating sections were stained with above antibodies. The alpha-synuclein protein is concentrated in synaptic regions, while the GFAP antibody stains the filamentous cytoskeleton of Bergmann glia and astrocytic cells.

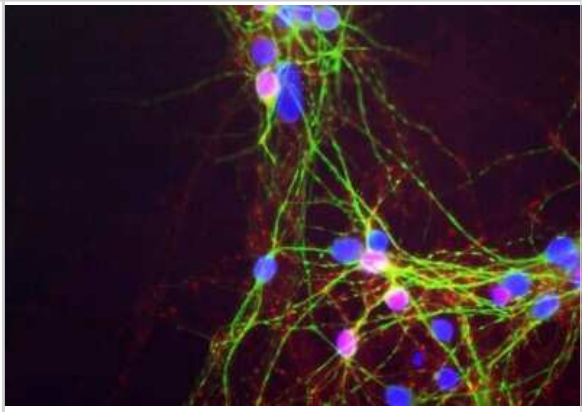


Simple Western: alpha-Synuclein Antibody (2A7) [NBP1-05194] - Synuclein-alpha Antibody (2A7) [NBP1-05194] - Simple Western lane view shows a specific band for alpha-Synuclein in 0.05 mg/ml of Human Brain lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.

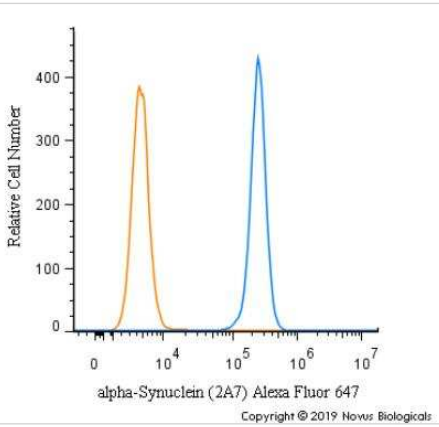
Western Blot: alpha-Synuclein Antibody (2A7) [NBP1-05194] - Western blot analysis of tissue lysates using mAb to alpha-synuclein NBP1-05194. dilution 1:1,000 in green. Lane [1] protein standard in red, [2] whole rat brain lysate, [3] rat spinal cord lysate. Strong band at about 15kDa corresponds to alpha-synuclein protein.



Immunocytochemistry/Immunofluorescence: Synuclein-alpha Antibody (2A7) [NBP1-05194] - Mixed neuron-glial cultures stained with NBP1-05194, our monoclonal antibody to alpha-synuclein (red) and chicken polylclonal antibody to MAP2 NB300-213 (green). The alpha-synuclein antibody stains vesicular structures the perikarya and processes of the neurons in this image. Note that some of the neuronal perikarya contain much more alpha-synuclein than others. The blue channel shows the localization of DNA.



Flow Cytometry: alpha-Synuclein Antibody (2A7) [NBP1-05194] - An intracellular stain was performed on SK-MEL-28 cells with alpha-Synuclein [2A7] Antibody NBP1-05194AF647 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.



Publications

Huynh B Brainstem Neurotransmitter System Deterioration in Parkinson's Disease and Parkinson's Disease with Dementia Thesis 2023-01-01 (IHC-P, Human)

Amireddy N, Dulam V, Kaul S et al. The mitochondrial uncoupling effects of nitazoxanide enhances cellular autophagy and promotes the clearance of ?-synuclein: Potential role of AMPK-JNK pathway Cellular signalling 2023-06-12 [PMID: 37315747] (WB, Human)

Leupold L, Sigutova V, Gerasimova E et al. The Quest for Anti-?-Synuclein Antibody Specificity-Lessons Learnt From Flow Cytometry Analysis Frontiers in neurology 2022-07-15 [PMID: 35911883] (FLOW, ICC/IF, WB, Human)

Details:
AF488-conjugate. Flow: 2 ug per test, ICC/IF: 1:100 dilution, WB: 1:500 dilution

Rueda-Gensini L, Serna JA, Rubio D et al. Three-dimensional neuroimmune co-culture system for modeling Parkinson's Disease microenvironments in vitro Biofabrication 2023-06-27 [PMID: 37369196] (Immunocytochemistry/ Immunofluorescence, Human)

Liu X, Balaraman K, Lynch CC et al. Inhibition of Ubiquitin-Specific Protease-13 Improves Behavioral Performance in Alpha-Synuclein Expressing Mice International journal of molecular sciences 2022-07-23 [PMID: 35897705]

Wilmes P, Trezzi J, Aho V et al. An archaeal compound as a driver of Parkinson’s disease pathogenesis Research Square 2022-07-26 (ICC/IF, Human)

Lee M, Liu K, Thomas J et al. Peptide-Imprinted Poly(hydroxymethyl 3,4-ethylenedioxythiophene) Nanotubes for Detection of alpha Synuclein in Human Brain Organoids ACS Appl. Nano Mater. 2020-08-28 (WB)

Kim Y, Stahl MC, Huang X, Connor JR H63D variant of the homeostatic iron regulator (HFE) gene alters alpha-synuclein expression, aggregation, and toxicity J. Neurochem. 2020-06-23 [PMID: 32574378] (Human)

Lv R, Du L, Liu X et al. Rosmarinic acid attenuates inflammatory responses through inhibiting HMGB1/TLR4/NF-kB signaling pathway in a mouse model of Parkinson's disease Life Sci. 2019-04-15 [PMID: 30880023] (ICC/IF, Mouse)

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Products Related to NBP1-05194

HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)
NBP1-05194UV	alpha-Synuclein Antibody (2A7) [DyLight 350]

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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