

Product Datasheet

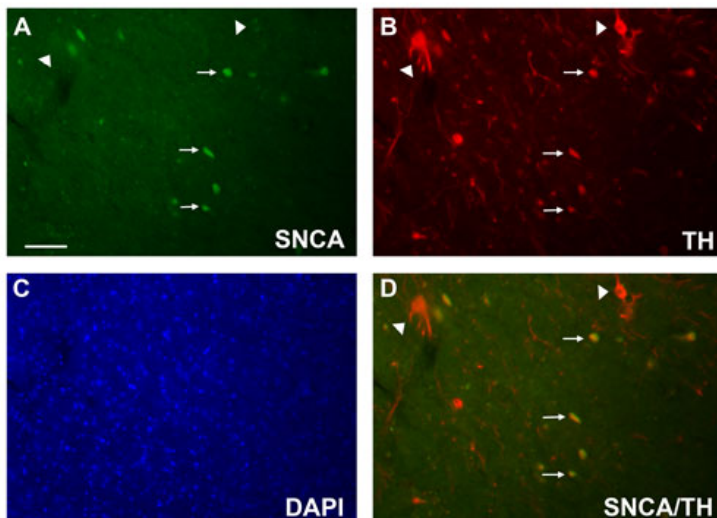
Chickens make *better* antibodies.

Anti-Alpha Synuclein Antibody

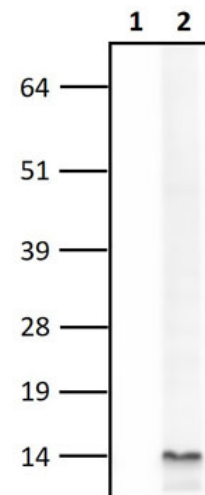
Overview

Catalog #	SNCA-1010
Concentration	10 mg/mL
Host Species	Chicken Polyclonal
Format	IgY Fraction
Buffer	Phosphate-buffered (10 mM) isotonic (0.9%, w/v) saline ("PBS," pH 7.2) with sodium azide (0.02%, w/v) added as a preservative.
Applications	IHC 1:100-1:500 ICC 1:100-1:500 WB 1:1000-1:5000
Species Reactivity	Human, Mouse, and Rat
Immunogen	Full-length human alpha-synuclein (UniProtKB - P37840) produced in <i>E.Coli</i> .
Molecular Weight	14 kDa
Cite this Antibody	Aves Labs Cat# SNCA-1010, RRID: AB_2827809

Images



Chicken anti-SNCA (green) and TH (red) double immunostaining in Parkinson's Disease patient's substantia nigra section. Arrows indicate SNCA positive, degenerating dopamine neurons. Arrowheads indicate SNCA negative, healthy dopamine neurons. Bar = 50 um for A-D. (Image courtesy of Dr. Curt Freed's lab, University of Colorado Anschutz Medical Campus.)



Rat brain lysate was probed with no primary antibody as a control (Lane 1) or with a 1:2,500 dilution of Chicken anti-SNCA IgY (Lane 2).

Details

Target Description

Alpha-synuclein (SNCA), also known as PARK1, NACP, PARK4, is a member of the synuclein family, which also includes beta- and gamma-synuclein. Alpha-synuclein is a highly-conserved protein known to be abundant in neurons and especially presynaptic terminals where it serves multiple roles including regulation of synaptic vesicle trafficking and subsequent neurotransmitter release. Functionally, alpha synuclein has been implicated in synaptic plasticity (Liu 2004) and the assembly of snare complexes (Burre 2010) and it is known to be associated with various neuropathologies including Parkinson's Disease, Lewy Body Dementia, and Alzheimer's Disease, where it forms insoluble protein aggregates. Early studies of amyloid deposits in the brains of Alzheimer's patients revealed two previously uncharacterized peptides in addition to the amyloid beta fragment (Ueda 1993), both of which were found to correspond to alpha-synuclein (SNCA). Later studies confirmed that aggregated alpha-synuclein proteins are present in brain lesions (Lewy bodies) that are hallmarks of neurodegenerative synucleinopathies and that alpha synuclein likely plays a role in the pathogenesis of Parkinson's disease, Lewy body dementia, and Alzheimer's disease among other neuropathologies. The SNCA antibody was raised against full-length human alpha synuclein and recognizes endogenous levels of alpha synuclein in brain by Western blot and immunohistochemistry.

Purification Method

Chickens were immunized with recombinant human α -synuclein protein (expressed in bacteria). After repeated injections, immune eggs were collected, the IgY fractions were purified from the yolks, and the IgY concentration adjusted to 10 mg/ml. Finally, the antibody preparation was filter-sterilized.

Quality Control Tests

Antibodies were analyzed by western blot analysis (1:2500 dilution) on rat brain lysate and immunohistochemistry (1:200 dilution) on substantia nigra sections from a Parkinson's Disease patient's brain. Western blots were performed using BlokHen[®] (Aves Labs) as the blocking reagent, and HRP-labeled goat anti-chicken IgY (1:500 dilution, Aves Labs Cat.# H-1004) as the detection reagent. Immunohistochemistry used FITC-conjugated goat anti-chicken IgY (AvesLabs Cat. # F-1005).

Storage

Store at 4°C in the dark. Under these conditions, the antibodies should have a shelf life of at least twelve months, provided they remain sterile. For longer term storage, aliquot and freeze to avoid freeze-thaw of the antibody.

Our Guarantee

As an original manufacturer, we are dedicated to creating quality and reproducible antibodies that further your research. We provide personalized customer support from the scientists that made the antibody and offer a free replacement or 100% refund if we cannot resolve an issue. Order today and experience how chickens make better antibodies.

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