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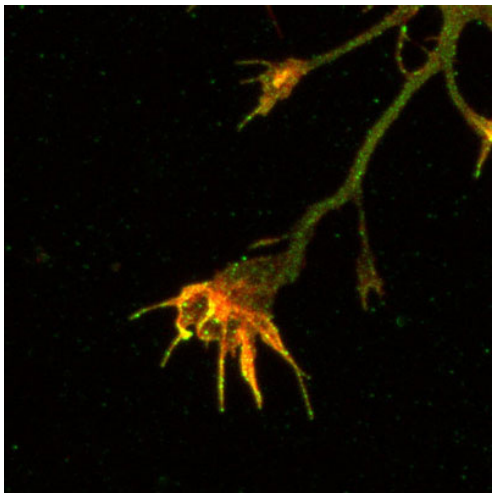
Product Datasheet **Chickens make *better* antibodies.**

Anti-Amyloid Precursor Protein (APP), Peptide #4 Antibody

Overview

Catalog #	APP4
Concentration	100 µg/mL
Host Species	Chicken Polyclonal
Format	Affinity-Purified IgY
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 1:500-1:1000 ICC 1:500-1:1000
Species Reactivity	Human, Mouse, and Rat
Immunogen	Synthetic peptide (EQK DRQ HTL KHF EHV RMV DPK K, residues #501-522) from the human APP gene product
Molecular Weight	87 kDa
Cite this Antibody	Aves Labs Cat# APP4, RRID: AB_2797316

Images



Mouse cortical neurons in culture. The green staining is APP-immunoreactivity, using fluorescein-labeled goat anti-chicken IgY (Product #F-1005, Aves Labs) and rhodamine-labeled phalloidin as a counterstain. Note the APP-staining of the neurites and growth cones, and the phalloidin-staining limited to the distal growth cones and filapodia. Photomicrograph courtesy of Dr. Philip Copenhaver (OHSU).

Details

Target Description

Amyloid Precursor Protein (APP, UniProt Accession Number P05067) is a 770 amino acid, single-pass transmembrane protein whose beta-amyloid proteolytic fragment can form neurotoxic extracellular accumulations in human cerebral cortex, and is widely believed to be the cause of Alzheimer's dementia. However, the normal function of APP itself is still obscure, as are potential functions of various proteolytic fragments that have been observed in human brain [Muller, U.C., Deller, T., Korte, M. (2017) Nature Reviews Neuroscience 18: 281-298)]. To better understand these functions, we have made a set of five anti-peptide antibody reagents against APP. One of the peptide sequences used is within the beta-amyloid fragment and recognizes the extracellular amyloid plaques observed in Alzheimer's patients' brains (see Cat.# ABN). Three other peptide sequences used, however, are within the extracellular domain of APP outside of this domain, and are useful for identifying the APP protein itself, and various proteolytic fragments, rather than the beta-amyloid peptide and plaques.

Purification Method

Chickens were immunized with a keyhole limpet hemocyanin (KLH) conjugate of the synthetic peptide EQK DRQ HTL KHF EHV RMV DPK K, which corresponds to residues #501-522 of the human gene product (NP_000475.1). This sequence is also conserved in the mouse and rat APP gene products, as well. After repeated injections, immune eggs were collected from the hens, and the IgY fractions were purified from the yolks. These IgY fractions were then affinity-purified against the cognate peptide using an agarose column, the concentration of the eluates adjusted to 100 µg/mL, and the preparation was filter-sterilized.

Quality Control Tests

This anti-peptide antibody mixture was analyzed by immunohistochemistry (at a dilution of 1:1000) using fluorescein-labeled goat anti-chicken IgY (1:500 dilution, Aves Labs Cat.# F-1005) as the secondary reagent.

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.