

Product Datasheet

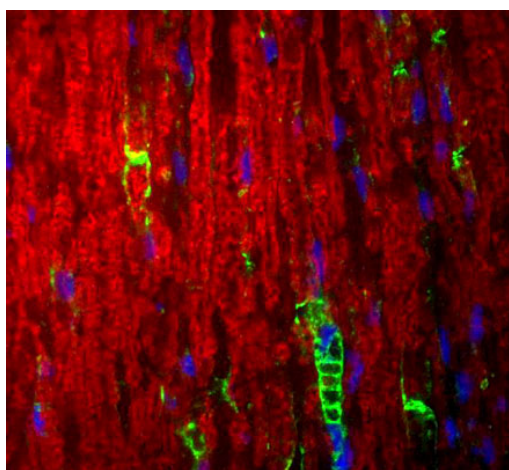
Chickens make *better* antibodies.

Anti-P-Zero Myelin Protein (Pz0) Antibody

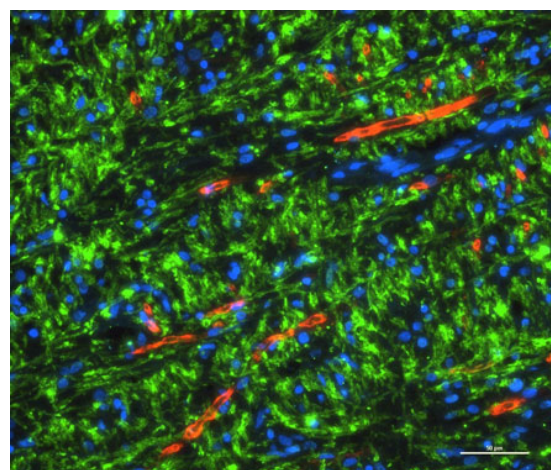
Overview

Catalog #	PZO (1000 µL size) or PZO-0020 (100 µL size)
Concentration	200 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 1:2000-1:5000 ICC 1:2000-1:5000 WB 1:10000-1:20000
Species Reactivity	Human, Mouse, and Rat
Immunogen	Synthetic peptides
Molecular Weight	27 kDa
Cite this Antibody	Aves Labs Cat# PZO, or Aves Labs Cat# PZO-0020; RRID: AB_2313561

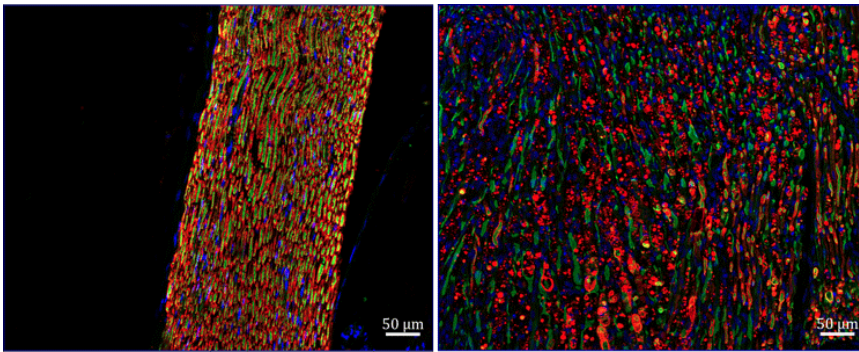
Images



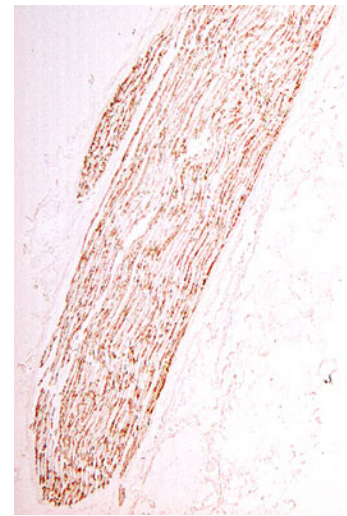
In the image (a tissue section through an adult sciatic nerve), Po (green staining) can be seen in the myelin and Schwann cell processes surrounding the nodes of Ranvier. In this photomicrograph, rabbit antibodies against LAMP (lysosome-associated membrane glycoprotein) (red staining) serves as the counterstain, and DAPI (blue staining) allows visualization of nuclei.



Remyelinated lesion of index case stained for PLP (green) and Pzero (Cat No. PZO, red), showing that the myelin is distinctly from oligodendrocyte or Schwann cell origin, respectively. Image courtesy of Bryan Bollman, Washington University in St. Louis.



Immunofluorescence of a section of injured (right, crushed) and normal (left) mouse sciatic nerve labeled with Anti-P-Zero Myelin Protein (1:1000, red), colabeled with Anti-Neurofilament NF-L (green), and DAPI labeling nuclei. Scale bar, 50 μ m; Magnification, 20 \times . Image kindly provided by Prem Kumar, Department of Orthopedics and Rehabilitation, Penn State University College of Medicine, John C. Elfar lab.



P-zero (brown staining) in all of the myelinating Schwann cells of a tissue section of an adult sciatic nerve.

Details

Target Description

Human Myelin Protein Zero (Pz0) is a 28,400 dalton protein (258 amino acids) found in myelin of the PNS, but not the CNS. Expressed in myelinating Schwann cells, Po serves as a homophilic adhesion molecule, allowing adjacent laminae of the myelin sheath to undergo compaction. Po is also a marker of a subpopulation of migrating neural crest cells. Mutations of the MPZ gene product in humans is responsible for Charcot-Marie-Tooth type 1B neuropathies (HMSN1B).

Purification Method

Chickens were immunized with two synthetic peptide / keyhole limpet hemocyanin (KLH) conjugates. These synthetic peptides corresponded to different regions of the Po gene product, but are shared between the human (NP_000521, NCBI) and mouse (NP_032649, NCBI) sequences. After repeated injections, immune eggs were collected, and the IgY fractions were purified from the yolks. These IgY fractions were then affinity-purified using a peptide column, and the concentrations of the eluates adjusted to 200 μ g/mL. Finally, equal volumes of both of these affinity-purified anti-peptide antibodies were mixed, and the preparation was filter-sterilized.

Quality Control Tests

Both of these anti-peptide antibodies were analyzed by immunohisto-chemistry (at a dilution of 1:2000) 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.

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