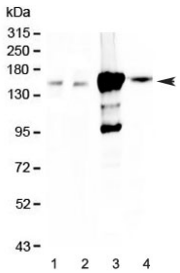
Periaxin Antibody / PRX Antibody (RQ4326)

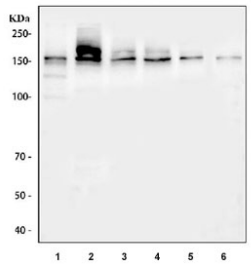
Catalog No.	Formulation	Size
RQ4326	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

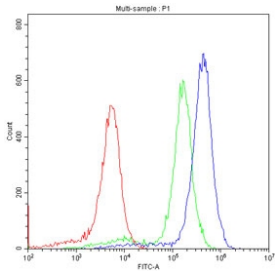
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q9BXM0
Localization	Cell membrane
Applications	Western Blot : 0.5-1ug/ml Flow Cytometry : 1-3ug/million cells Direct ELISA : 0.1-0.5ug/ml
Limitations	This Periaxin Antibody / PRX Antibody is available for research use only.



Periaxin Antibody Human and Rodent Kidney WB. Western blot analysis of rat kidney (lane 1), mouse kidney (lane 2), human 293T (lane 3), and human HK-2 (lane 4) lysates using Periaxin Antibody / PRX Antibody at 0.5 ug/ml. A prominent band is detected at approximately 155 kDa, consistent with the predicted molecular weight of the long periaxin isoform. This Periaxin Antibody, also called PRX Antibody, is suitable for studies of Schwann cell biology, peripheral nerve myelination, myelin maintenance, and inherited peripheral neuropathies.



Periaxin Antibody Human and Rodent Brain WB. Western blot analysis of human Jurkat (lane 1), K562 (lane 2), U-2 OS (lane 3), and U-251 (lane 4) whole cell lysates, rat brain (lane 5), and mouse brain (lane 6) tissue lysates using Periaxin Antibody / PRX Antibody at 0.5 ug/ml. A prominent band is detected at approximately 155 kDa, consistent with the predicted molecular weight of the long periaxin isoform. The stronger signal observed in K562 cells likely reflects relatively higher expression in this cell line. This Periaxin Antibody, also called PRX Antibody, is suitable for studies of Schwann cell biology, peripheral nerve myelination, myelin maintenance, and inherited peripheral neuropathies.



Periaxin Antibody Human K562 Cell FACS. Flow cytometry analysis of fixed and permeabilized human K562 cells stained with Periaxin Antibody / PRX Antibody (blue). Cells were blocked with goat serum and incubated with Periaxin Antibody at 1 ug/10^6 cells, followed by a fluorescent secondary antibody. Unstained cells (red) and an isotype control (green) were included to assess background staining. The distinct rightward shift of the Periaxin-positive population demonstrates specific intracellular detection of PRX expression in K562 cells. This Periaxin Antibody, also called PRX Antibody, is suitable for flow cytometric analysis of Periaxin expression and studies of Schwann cell biology, peripheral nerve myelination, myelin maintenance, and inherited peripheral neuropathies.

Description

Periaxin Antibody / PRX Antibody recognizes periaxin (PRX), a Schwann cell-specific protein that is essential for the formation, maintenance, and stability of peripheral nerve myelin. Periaxin is expressed predominantly in myelinating Schwann cells, where it contributes to the organization of specialized membrane domains and the structural integrity of the myelin sheath. Two major isoforms, long periaxin and short periaxin, are generated through alternative splicing, with long periaxin serving as the principal structural component required for mature myelin maintenance. By linking the Schwann cell cytoskeleton to the extracellular matrix through protein complexes at the abaxonal membrane, periaxin helps preserve normal nerve architecture and supports efficient saltatory nerve conduction.

PRX interacts with dystrophin-related protein 2, dystroglycan complexes, integrins, and cytoskeletal proteins to stabilize Schwann cell elongation and the characteristic architecture of peripheral myelin. These interactions are critical for the development of Cajal bands, specialized cytoplasmic channels that facilitate Schwann cell function and long-term myelin maintenance. Loss of periaxin disrupts these structures, resulting in abnormal Schwann cell morphology, demyelination, reduced nerve conduction velocity, and progressive peripheral neuropathy. Because of its restricted expression pattern and indispensable structural role, PRX serves as a valuable marker of mature myelinating Schwann cells and peripheral nerve biology.

Mutations in PRX cause several inherited demyelinating neuropathies, including Charcot-Marie-Tooth disease type 4F and Dejerine-Sottas neuropathy. These disorders are characterized by defective peripheral myelin, muscle weakness, sensory impairment, and progressive loss of motor function. Beyond inherited neuropathies, altered periaxin expression has been investigated in peripheral nerve injury, Schwann cell regeneration, remyelination, and peripheral nerve tumors. Continued research seeks to better define the molecular mechanisms through which PRX regulates myelin stability and peripheral nerve repair while evaluating its potential as a biomarker of peripheral nerve disease.

An Periaxin Antibody is a valuable tool for investigating Schwann cell biology, peripheral nerve development, myelin organization, and inherited neuropathies. Researchers frequently use PRX Antibody reagents to study peripheral myelination, nerve regeneration, demyelinating disease, Schwann cell differentiation, and the molecular mechanisms that maintain peripheral nerve integrity.

Explore our Neuroscience Antibodies page for additional proteins involved in peripheral nerve development, myelin biology, and nervous system function.

Application Notes

Optimal dilution of the Periaxin Antibody / PRX Antibody should be determined by the researcher.

Immunogen

A recombinant human protein corresponding to amino acids M1-K91 was used as the immunogen for the Periaxin antibody.

Storage

After reconstitution, the Periaxin antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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