

# periaxin (G-5): sc-515672

## BACKGROUND

Periaxin, also known as PRX, is a 1,461 amino acid protein that contains one PDZ (DHR) domain and belongs to the periaxin family. Periaxin encodes two PDZ-domain proteins, L- and S-periaxin, which are required for peripheral nerve myelin sheath maintenance. Periaxin may play a role in axon-glia interactions, possibly by interacting with cytoplasmic domains of integral membrane proteins in periaxonal regions of Schwann cell plasma membranes. Defects in periaxin are linked to Dejerine-Sottas syndrome, which is characterized by motor and sensory neuropathy with very slow nerve conduction velocities, increased cerebrospinal fluid protein concentrations, hypertrophic nerve changes, delayed age of walking and areflexia. Mutations in periaxin are also linked to CMT4F, an autosomal recessive form of Charcot-Marie-Tooth disease. The gene that encodes periaxin maps to human chromosome 19q13.2.

## REFERENCES

1. Scherer, S.S., et al. 1995. Periaxin expression in myelinating Schwann cells: modulation by axon-glia interactions and polarized localization during development. *Development* 121: 4265-4273.
2. Gillespie, C.S., et al. 1997. The gene encoding the Schwann cell protein periaxin localizes on mouse chromosome 7 (Prx). *Genomics* 41: 297-298.
3. Dytrych, L., et al. 1998. Two PDZ domain proteins encoded by the murine periaxin gene are the result of alternative intron retention and are differentially targeted in Schwann cells. *J. Biol. Chem.* 273: 5794-5800.
4. Gillespie, C.S., et al. 2000. Peripheral demyelination and neuropathic pain behavior in periaxin-deficient mice. *Neuron* 26: 523-531.
5. Boerkoel, C.F., et al. 2001. Periaxin mutations cause recessive Dejerine-Sottas neuropathy. *Am. J. Hum. Genet.* 68: 325-333.

## CHROMOSOMAL LOCATION

Genetic locus: PRX (human) mapping to 19q13.2; Prx (mouse) mapping to 7 A3.

## SOURCE

periaxin (G-5) is a mouse monoclonal antibody raised against amino acids 441-691 mapping within an internal region of periaxin of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

periaxin (G-5) is available conjugated to agarose (sc-515672 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515672 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515672 PE), fluorescein (sc-515672 FITC), Alexa Fluor® 488 (sc-515672 AF488), Alexa Fluor® 546 (sc-515672 AF546), Alexa Fluor® 594 (sc-515672 AF594) or Alexa Fluor® 647 (sc-515672 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515672 AF680) or Alexa Fluor® 790 (sc-515672 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

periaxin (G-5) is recommended for detection of periaxin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for periaxin siRNA (h): sc-97670, periaxin siRNA (m): sc-152167, periaxin shRNA Plasmid (h): sc-97670-SH, periaxin shRNA Plasmid (m): sc-152167-SH, periaxin shRNA (h) Lentiviral Particles: sc-97670-V and periaxin shRNA (m) Lentiviral Particles: sc-152167-V.

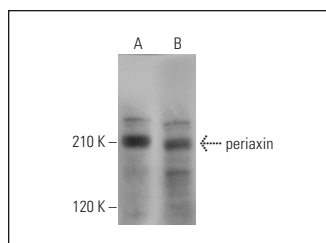
Molecular Weight of periaxin isoforms 1/2/3: 155/16/148 kDa.

Positive Controls: human tonsil tissue extract: sc-364263, K-562 whole cell lysate: sc-2203 or rat sciatic nerve extract: sc-395623.

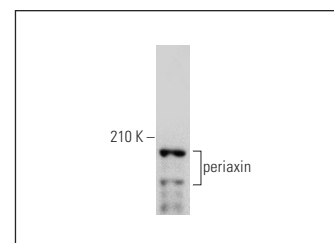
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



periaxin (G-5): sc-515672. Western blot analysis of periaxin expression in K-562 whole cell lysate (A) and human tonsil tissue extract (B).



periaxin (G-5): sc-515672. Western blot analysis of periaxin expression in rat sciatic nerve tissue extract.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.