**BACKGROUND**

Peripherin is a type III intermediate filament protein (IFP) that is expressed in peripheral and some central nervous system (CNS) neurons. Peripherin activation is known to be induced by leukemia inhibitory factor (LIF). LIF activates Peripherin by inducing members of Stat transcription factor family to bind to a specific promoter element in the Peripherin gene. IL-6 is also known to induce Peripherin expression. Although it is not essential for neurite formation, Peripherin is necessary for cellular intermediate filament network formation. Peripherin, unlike most intermediate filament proteins, has been reported to be modified by tyrosine phosphorylation.

**CHROMOSOMAL LOCATION**

Genetic locus: PRPH (human) mapping to 12q13.12; Prph (mouse) mapping to 15 F1.

**SOURCE**

Peripherin (A-3) is a mouse monoclonal antibody raised against amino acids 21-90 mapping near the N-terminus of Peripherin of human origin.

**PRODUCT**

Each vial contains 200 µg IgG₂κ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Peripherin (A-3) is available conjugated to agarose (sc-377093 AC), 500 µg/0.25 ml agarose in 1 ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377093 PE), fluorescein (sc-377093 FITC), Alexa Fluor® 488 (sc-377093 AF488), Alexa Fluor® 546 (sc-377093 AF546), Alexa Fluor® 594 (sc-377093 AF594) or Alexa Fluor® 647 (sc-377093 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377093 AF680) or Alexa Fluor® 790 (sc-377093 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

Peripherin (A-3) is recommended for detection of Peripherin 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), immunohistochemistry (including paraffin-embedded sections) (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 Peripherin siRNA (h): sc-36211, Peripherin siRNA (m): sc-36212, Peripherin shRNA Plasmid (h): sc-36211-SH, Peripherin shRNA Plasmid (m): sc-36212-SH, Peripherin shRNA (h) Lentiviral Particles: sc-36211-V and Peripherin shRNA (m) Lentiviral Particles: sc-36212-V.

Molecular Weight of Peripherin: 57 kDa.

Positive Controls: PC-12 cell lysate: sc-2250 or Neuro-2A whole cell lysate: sc-364185.

**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).

**DATA**

Peripherin (A-3) Alexa Fluor® 488: sc-377093 AF488. Direct fluorescent western blot analysis of Peripherin expression in PC-12 (A) and Neuro-2A (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker MW Tag-Alexa Fluor® 647: sc-516791.

Peripherin (A-3): sc-377092. Immunofluorescence staining of melanin-fixed HeLa cells showing cytoskeletal localization (A); Immunoperoxidase staining of female fixed, paraffin-embedded human colon tissue showing cytoplasmic and membrane staining of peripheral nerve/ganglion cells (B).

**SELECT PRODUCT CITATIONS**


**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 for detailed protocols and support products.