

# Peripherin (A-3): sc-377093

## 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 IgG<sub>2a</sub> 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 IP; to HRP (sc-377093 HRP), 200 µg/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.

## RESEARCH USE

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

## 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.

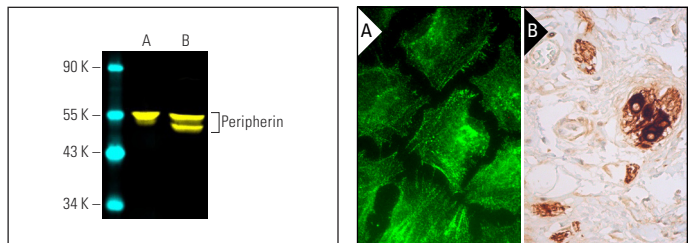
Molecular Weight of Peripherin: 57 kDa.

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). 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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



Peripherin (A-3) Alexa Fluor® 488: sc-377093 AF488. Direct fluorescent western blot analysis of Peripherin expression in Neuro-2A (A) and PC-12 (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards: sc-2035. Cruz Marker MW Tag-Alexa Fluor® 647: sc-516791.

Peripherin (A-3): sc-377093. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoskeletal localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic and membrane staining of peripheral nerve/ganglion cells (B).

## SELECT PRODUCT CITATIONS

- Hildebrandt, T.B., et al. 2018. Embryos and embryonic stem cells from the white rhinoceros. *Nat. Commun.* 9: 2589.
- Gomez, G.A., et al. 2019. WNT/β-catenin modulates the axial identity of ES derived human neural crest. *Development* 146: dev175604.
- Olmsted, Z.T., et al. 2021. Transplantable human motor networks as a neuron-directed strategy for spinal cord injury. *iScience* 24: 102827.
- Ahmadzai, M.M., et al. 2022. LPAR1 regulates enteric nervous system function through glial signaling and contributes to chronic intestinal pseudo-obstruction. *J. Clin. Invest.* 132: e149464.
- Chow, S.Y.A., et al. 2022. Human sensory neurons modulate melanocytes through secretion of RGMB. *Cell Rep.* 40: 111366.
- Gavid, M., et al. 2023. Technique of flat-mount immunostaining for mapping the olfactory epithelium and counting the olfactory sensory neurons. *PLoS ONE* 18: e0280497.

## STORAGE

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

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