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HGNC Name: PRPH
UniProt: P41219
RRID: AB_2572373
Immunogen: Recombinant rat peripherin expressed in and purified from *E. coli*
Format: Purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM NaN₃
Storage: Stable at 4°C for one year, for longer term store at -20°C
Recommended dilutions:
 WB: 1:500-1,000. IF/ICC: 1:500. IHC: 1:1,000.

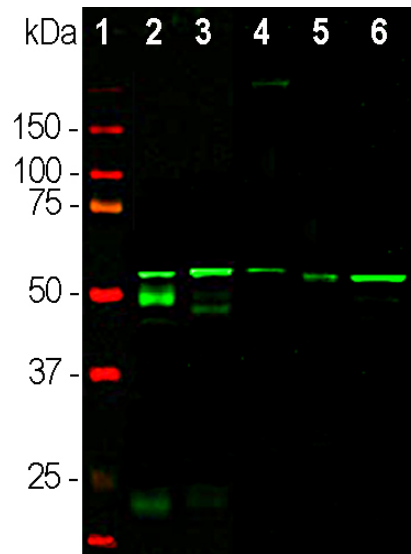
References:

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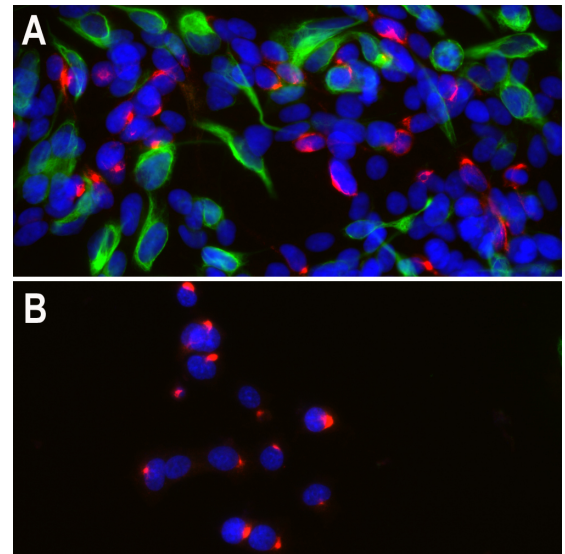
This antibody was generated by EnCor scientists and has been supplied by EnCor and numerous other vendors for many years. It has been used in numerous studies, resulting in many peer reviewed publications, see the Citeab link [here](#).

See also the result of a Google Scholar search for "peripherin AND 8G2" [here](#).

Applications	Host	Isotype	Molecular Wt.	Species Cross-Reactivity
WB, IF/ICC, IHC	Mouse	IgG1	~57kDa	Hu, Rt, Ms, Bo, Po



Western blot analysis of tissue and cell lysates probed with mouse mAb to peripherin, MCA-8G2, dilution 1:500 in green: [1] protein standard (red), [2] mouse spinal cord, [3] rat spinal cord, [4] cow spinal cord, [5] SH-SY5Y cells, and [6] PC12 cells. The band at ~57kDa corresponds to the peripherin protein. Bands at 50 and 25kDa detected in the mouse spinal cord lysate, correspond to the heavy and light chains of mouse IgG.



Immunofluorescent analysis of human neuroblastoma cell line SH-SY5Y (A) and rat pheochromocytoma cell line PC12 (B), stained with mouse mAb to peripherin, MCA-8G2, dilution 1:500, in red, and costained with chicken pAb to vimentin, CPCA-Vim, dilution 1:10,000, in green. The blue is DAPI staining of nuclear DNA. Peripherin, one of the Class III family of intermediate filament (IF) subunit proteins is revealed by MCA-8G2 antibody in the perinuclear region in some SH-SY5Y cells and in all PC12 cells. Vimentin, a protein also in the Class III IF family, is detected in a subpopulation of SH-SY5Y cells which are negative for peripherin. PC12 cells express peripherin but not vimentin.

Background:

Peripherin is a ~57kDa intermediate filament subunit found initially in sensory neurons of the peripheral nervous systems, which gives the protein its name (1). Subsequently, peripherin was found in some sensory and other neurons of the central nervous system and also as a major cytoskeletal protein in rat pheochromocytoma PC12 cells (2,3). Peripherin is expressed in certain neuroendocrine cells and in the insulin producing cells of the pancreas, and autoantibodies to peripherin may be seen in diabetes mellitus (4). It is also prominently expressed in certain tumors and in the ballooned axons typical of amyotrophic lateral sclerosis (5,6). Different classes of neuron and nerve fiber may be identified based on their expression of peripherin, NF-L and other markers (e.g. 7). There are multiple transcripts from the single peripherin gene, some of which encode proteins which produce proteins unable to form intermediate filaments and which induce the formation of pathological inclusions (8,9). Note that the intermediate filament subunit peripherin (HGNC PRPH) is completely unrelated to peripherin/RDS (HGNC PRPH2), a retinal protein belonging to the tetraspanin family.

The MCA-8G2 antibody was made against full length recombinant rat peripherin expressed in and purified from *E. coli*. The antibody works well for western blotting and for IF, ICC and IHC (for IHC see data under "Additional Info" tab). We also manufacture a rabbit and chicken polyclonal antibodies to the same immunogen, RPCA-Peri and CPCA-Peri. Finally we have made a mouse monoclonal antibody to peripherin which recognizes rodent but not human peripherin, MCA-7C5.

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Abbreviation Key:

mAb—Monoclonal Antibody pAb—Polyclonal Antibody WB—Western Blot IF—Immunofluorescence ICC—Immunocytochemistry
 IHC—Immunohistochemistry E—ELISA Hu—Human Mo—Monkey Do—Dog Rt—Rat Ms—Mouse Co—Cow Pi—Pig Ho—Horse Ch—Chicken
 Dr—D. rerio Dm—D. melanogaster Sm—S. mutans Ce—C. elegans Sc—S. cerevisiae Sa—S. aureus Ec—E. coli.