

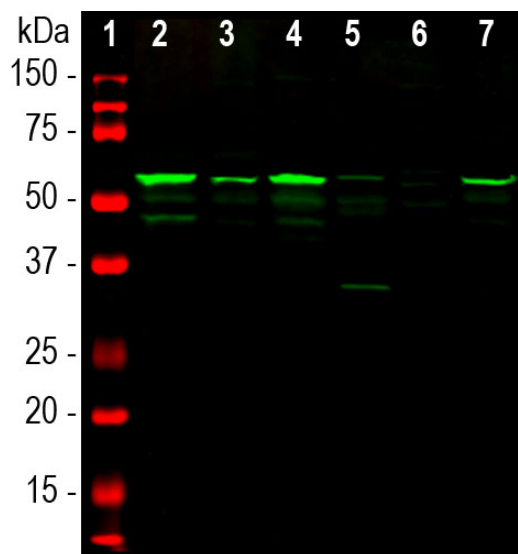
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**HGNC Name:** PRPH  
**UniProt:** P21807  
**RRID:** AB\_2284443  
**Immunogen:** Recombinant rat peripherin expressed in and purified from *E. coli*  
**Format:** Concentrated IgY preparation in PBS plus 0.02% Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
**Storage:** Stable at 4°C for at least one year. Mix 1:1 with 100% glycerol and store at -20°C for longer term storage  
**Recommended dilutions:**  
 WB: 1:20,000. IF/ICC: 1:2,000. IHC: 1:20,000

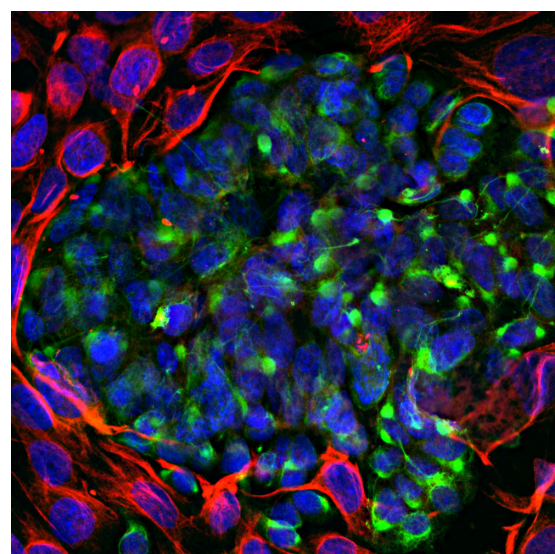
### References:

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Applications	Host	Isotype	Molecular Wt.	Species Cross-Reactivity
WB, IF/ICC, IHC	Chicken		57kDa	Hu, Rt, Ms



Western blot analysis of spinal cord tissue lysates (lanes 2-5) and cell lysates (lanes 6 and 7) using chicken pAb to peripherin, CPCA-Peri, dilution 1:10,000 in green: [1] protein standard (red), [2] rat, [3] mouse, [4] pig, [5] cow spinal cord; [6] SH-SY5Y, and [7] PC12 cells. The band at ~57kDa corresponds to the peripherin protein.



Immunofluorescent analysis of mixed fibroblast and PC12 pheochromocytoma cell culture stained with chicken pAb to peripherin, CPCA-Peri, dilution 1:5,000 in green, and costained with rabbit pAb to vimentin, [RPCA-Vim](#), dilution 1:2,000, in red. The blue is DAPI staining of nuclear DNA. CPCA-Peri antibody reveals cytoplasmic filamentous staining in the small PC12 cells, while vimentin antibody stains intermediate filaments in the surrounding fibroblastic cells which do not express peripherin.

### 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 CPCA-Peri antibody was made against full length recombinant rat peripherin expressed in and purified from *E. coli*. It recognizes peripherin from a variety of species on western blots and also for IF, ICC and IHC. Peripherin is heavily concentrated in the islet cells of the pancreas, see data revealed by "Additional Info" tab. We also manufacture a mouse monoclonal antibody to peripherin which has been used in studies of peripherin expression for many years in many peer reviewed publications, [MCA-8G2](#) which recognizes both the human and the rodent protein. We also made a rabbit polyclonal antibody to peripherin, [RPCA-Peri](#), [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*.