

# Anti-Peripherin Antibody [PSH10-70]

HA723234



|                            |                                                       |
|----------------------------|-------------------------------------------------------|
| <b>Product Type:</b>       | Recombinant Rabbit monoclonal IgG, primary antibodies |
| <b>Species reactivity:</b> | Human, Mouse, Rat, Cynomolgus monkey, Pig             |
| <b>Applications:</b>       | WB, IHC-P, IHC-Fr, IF-Cell                            |
| <b>Molecular Wt:</b>       | Predicted band size: 54 kDa                           |
| <b>Clone number:</b>       | PSH10-70                                              |

**Description:** Peripherin is a type III intermediate filament protein expressed mainly in neurons of the peripheral nervous system. It is also found in neurons of the central nervous system that have projections toward peripheral structures, such as spinal motor neurons. Its size, structure, and sequence/location of protein motifs is similar to other type III intermediate filament proteins such as desmin, vimentin and glial fibrillary acidic protein. Like these proteins, peripherin can self-assemble to form homopolymeric filamentous networks (networks formed from peripherin protein dimers), but it can also heteropolymerize with neurofilaments in several neuronal types. This protein in humans is encoded by the PRPH gene. Peripherin is thought to play a role in neurite elongation during development and axonal regeneration after injury, but its exact function is unknown. It is also associated with some of the major neuropathologies that characterize amyotrophic lateral sclerosis (ALS), but despite extensive research into how neurofilaments and peripherin contribute to ALS, their role in this disease is still unidentified.

**Immunogen:** Recombinant protein within Human aa 1-470.

**Positive control:** Human colon tissue, mouse colon tissue, rat colon tissue, Neuro-2a cell lysate, Mouse dorsal root ganglion tissue lysate, Neuro-2a.

**Subcellular location:** Cytoplasm, cytoskeleton, Cell projection, axon, Perikaryon.

**Database links:** SwissProt: P41219 Human | P15331 Mouse | P21807 Rat

**Recommended Dilutions:**

|                |         |
|----------------|---------|
| <b>WB</b>      | 1:5,000 |
| <b>IHC-P</b>   | 1:500   |
| <b>IHC-Fr</b>  | 1:500   |
| <b>IF-Cell</b> | 1:1,000 |

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C long term.

**Purity:** Protein A affinity purified.

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Orders: 0086-571-88062880

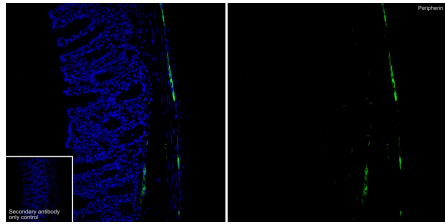
Technical: 0086-571-89986345

Service mail: support@huabio.cn

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Applications: WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

## Images

**Fig1:** Application: IHC-Fr

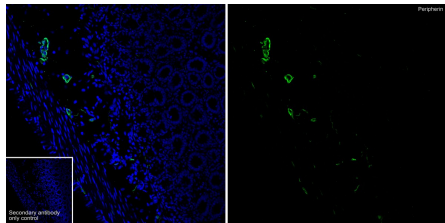
Species: Mouse

Site: Colon

Sample: Frozen section

Antibody concentration: 1:500

Antigen retrieval: Not required

**Fig2:** Application: IHC-Fr

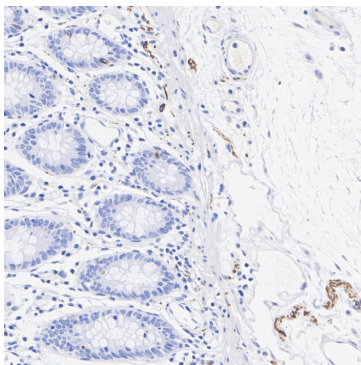
Species: Rat

Site: Colon

Sample: Frozen section

Antibody concentration: 1:500

Antigen retrieval: Not required

**Fig3:** Immunohistochemical analysis of paraffin-embedded human colon tissue with Rabbit anti-Peripherin antibody (HA723234) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA723234) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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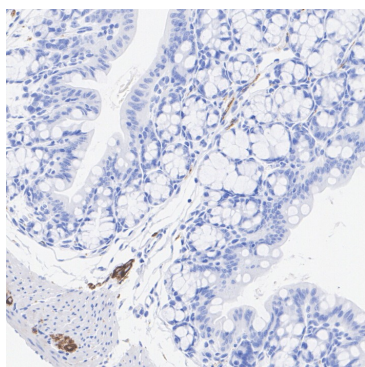
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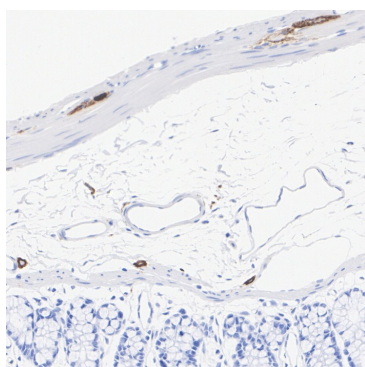
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**Fig4:** Immunohistochemical analysis of paraffin-embedded mouse colon tissue with Rabbit anti-Peripherin antibody (HA723234) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA723234) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig5:** Immunohistochemical analysis of paraffin-embedded rat colon tissue with Rabbit anti-Peripherin antibody (HA723234) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA723234) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

**Fig6:** Western blot analysis of Peripherin on different lysates with Rabbit anti-Peripherin antibody (HA723234) at 1/5,000 dilution.

Lane 1: Neuro-2a cell lysate

Lane 2: Mouse dorsal root ganglion tissue lysate

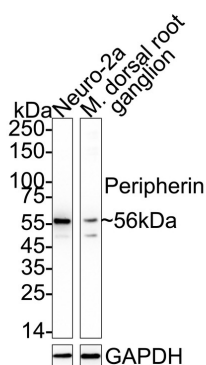
Lysates/proteins at 20 µg/Lane.

Predicted band size: 54 kDa

Observed band size: 56 kDa

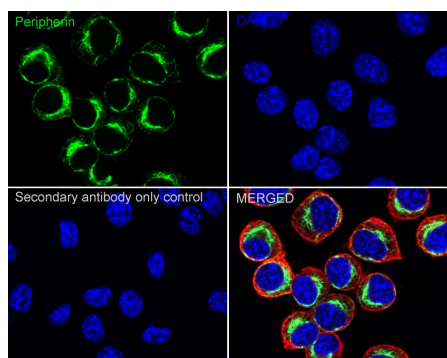
Exposure time: 1 minute; ECL: K1801;

4-20% SDS-PAGE gel.



Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA723234) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4 °C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

**Fig7:** Immunocytochemistry analysis of Neuro-2a cells labeling Peripherin with Rabbit anti-Peripherin antibody (HA723234) at 1/1,000 dilution.



Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-Peripherin antibody (HA723234) at 1/1,000 dilution in 1% BSA in PBST overnight at 4 °C. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (HA601187, red) was stained at 1/100 dilution overnight at +4 °C. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

**Note:** All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”.

### Background References

1. Keddie S et al. Peripherin is a biomarker of axonal damage in peripheral nervous system disease. *Brain*. 2023 Nov
2. Romano R et al. Role of the Intermediate Filament Protein Peripherin in Health and Disease. *Int J Mol Sci*. 2022 Dec

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