

Peripherin Recombinant Antibody [PSH10-70] - Rat IgG1 (Chimeric)

HA601405



Product Type:	Recombinant Chimeric Antibody, primary antibodies
Species reactivity:	Human, Mouse, Rat, Cynomolgus monkey, Pig
Applications:	IHC-Fr, IHC-P, WB, IF-Cell
Molecular Wt:	Predicted band size: 54 kDa
Clone number:	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:

IHC-Fr	1:500
IHC-P	1:500
WB	1:5,000
IF-Cell	1:500

Storage Buffer: 1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.

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

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

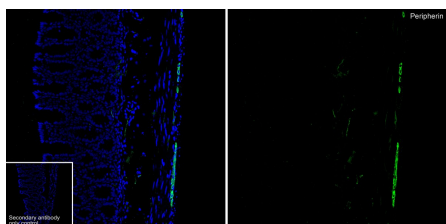
Technical:0086-571-89986345

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

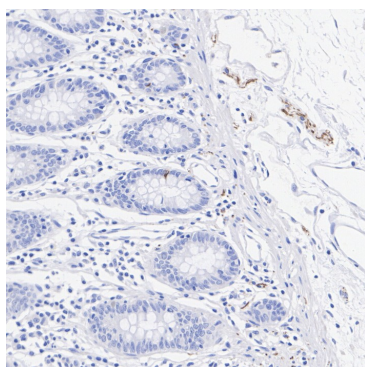
Species: Mouse

Site: Colon

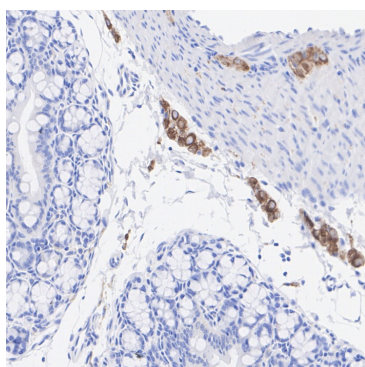
Sample: Frozen section

Antibody concentration: 1:500

Antigen retrieval: Not required

**Fig2:** Immunohistochemical analysis of paraffin-embedded human colon tissue with Rat anti-Peripherin antibody (HA601405) 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 ddH₂O and PBS, and then probed with the primary antibody (HA601405) 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.

**Fig3:** Immunohistochemical analysis of paraffin-embedded mouse colon tissue with Rat anti-Peripherin antibody (HA601405) 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 ddH₂O and PBS, and then probed with the primary antibody (HA601405) 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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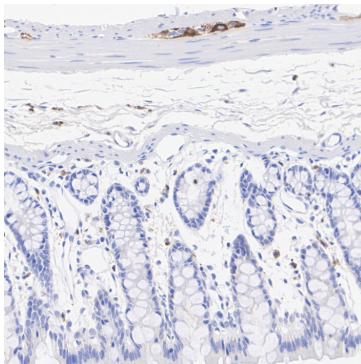


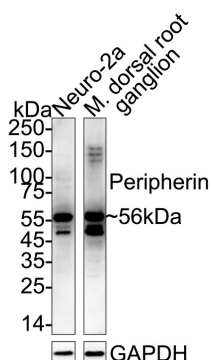
Fig4: Immunohistochemical analysis of paraffin-embedded rat colon tissue with Rat anti-Peripherin antibody (HA601405) at 1/500 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (HA601405) 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: Western blot analysis of Peripherin on different lysates with Rat anti-Peripherin antibody (HA601405) at 1/5,000 dilution.

Lane 1: Neuro-2a cell lysate (20 µg/Lane)

Lane 2: Mouse dorsal root ganglion tissue lysate (20 µg/Lane)



Predicted band size: 54 kDa

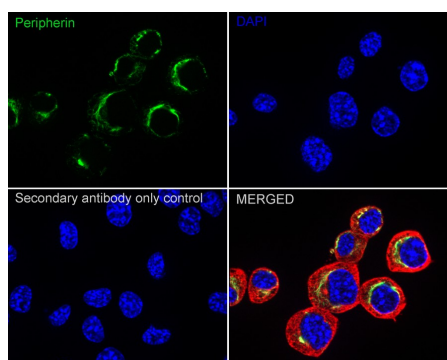
Observed band size: 56 kDa

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 (HA601405) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4 °C overnight. Goat Anti-Rat IgG H&L - HRP Secondary Antibody (HA1023) at 1/5,000 dilution was used for 1 hour at room temperature.

Fig6: Immunocytochemistry analysis of Neuro-2a cells labeling Peripherin with Rat anti-Peripherin antibody (HA601405) at 1/500 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 Rat anti-Peripherin antibody (HA601405) at 1/500 dilution in 1% BSA in PBST overnight at 4 °C. Goat Anti-Rat IgG H&L (iFluor™ 488, HA1133) 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 (ET1602-4, red) was stained at 1/100 dilution overnight at +4 °C. Goat Anti-Rabbit IgG H&L (iFluor™ 594, HA1122) were 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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