

**Mouse Anti-Peripherin [A3]: MC0466, MC0466RTU7**

**Intended Use:** For Research Use Only

**Description:** Peripherin is a type III intermediate filament protein that is expressed in peripheral and some central nervous system (CNS) neurons, which extends to many tissues throughout the body including the salivary gland, small intestine, prostate, stomach, and colon. 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. The use of anti-peripherin in tracking the reduction or loss of ganglion cells in the submucosal and myenteric layers of the colon wall can act as a valuable tool in identifying patients suspected of recto-sigmoid Hirschsprung disease and other forms of colonic aganglionosis.

**Specifications:**

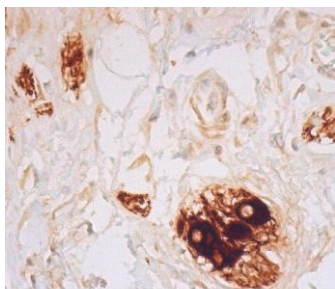
Clone: A3  
 Source: Mouse  
 Isotype: IgG2a/k  
 Reactivity: Human, mouse, rat  
 Immunogen: Human Peripherin N-terminus aa 21-90  
 Localization: Cytoplasm  
 Formulation: Antibody in PBS pH7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, ELISA, IF, IP, WB  
 Package:

Description	Catalog No.	Size
Peripherin [A3] Concentrated	MC0466	1 ml
Peripherin [A3] Prediluted	MC0466RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: Colon  
 Concentrated Dilution: 50-200  
 Pretreatment: Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human colon stained with anti-Peripherin using DAB

**References:**

1. Transplantable human motor networks as a neuron-directed strategy for spinal cord injury. Zachary T Olmsted, et al. iScience. Jul 10;24(8):102827, 2021. doi: 10.1016/j.isci.2021.102827.
2. hiPSC-Derived Neurons Provide a Robust and Physiologically Relevant In Vitro Platform to Test Botulinum Neurotoxins. Juliette Duchesne De Lamotte, et al., Front Pharmacol Jan 14;11:617867, 2021. doi: 10.3389/fphar.2020.617867.
3. WNT/ $\beta$ -catenin modulates the axial identity of embryonic stem cell-derived human neural crest. Gustavo A Gomez, et al. Development. Aug 29;146(16):dev175604, 2019. doi: 10.1242/dev.175604.