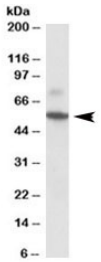
Peripherin Antibody / PRPH (R35323)

Catalog No.	Formulation	Size
R35323-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	19132
Applications	Western Blot : 0.1-0.3ug/ml ELISA (peptide) LOD : 1:128000
Limitations	This Peripherin/PRPH antibody is available for research use only.



Western blot analysis of Peripherin/PRPH antibody in rat colon lysate. A distinct band is observed at approximately 55 kDa, consistent with the predicted molecular weight of Peripherin based on amino acid sequence. An additional band of slightly different mobility is also detected, which may represent an alternative isoform, post-translational modification, or differential processing of PRPH. Both bands are specifically blocked by pre-incubation with the immunizing peptide, supporting target specificity of the antibody.

Description

Peripherin antibody, also known as PRPH antibody, recognizes Peripherin, a type III intermediate filament protein encoded by the PRPH gene and primarily expressed in neurons of the peripheral nervous system. Peripherin is localized to the cytoplasm, where it assembles into intermediate filament networks that contribute to cytoskeletal structure and axonal integrity. It is highly expressed in peripheral neurons, including sensory and autonomic neurons, and is also detected in certain central nervous system neuron populations during development or regeneration. As a neuronal intermediate filament protein, Peripherin supports structural stability and neurite extension.

Peripherin antibody detects a protein composed of a central alpha-helical rod domain flanked by non-helical head and tail domains, a structural organization characteristic of intermediate filament family members. Peripherin can form homopolymers or heteropolymers with other neuronal intermediate filament proteins such as neurofilament light chain, contributing to the dynamic regulation of axonal caliber and cytoskeletal remodeling. PRPH expression is developmentally regulated and is often upregulated during neuronal injury or regeneration, linking Peripherin to nerve repair processes.

Functionally, Peripherin plays a role in axonal growth, regeneration, and maintenance of neuronal morphology. It is particularly enriched in small diameter sensory neurons and is widely used as a marker of peripheral nerve fibers in research applications. Altered Peripherin expression has been associated with neurodegenerative conditions and motor neuron disorders. In certain contexts, abnormal accumulation or aggregation of Peripherin has been observed in models of amyotrophic lateral sclerosis, suggesting a potential role in cytoskeletal dysregulation and neuronal pathology.

The PRPH gene is located on chromosome 12 and is regulated during neuronal differentiation and injury responses. Because of its selective expression in peripheral neurons and its involvement in cytoskeletal organization, detection of Peripherin provides insight into neuronal development, regeneration, and disease-associated cytoskeletal changes.

This Peripherin antibody is suitable for detecting PRPH protein expression in research applications. An antibody targeting Peripherin supports studies of peripheral nerve biology, neuronal differentiation, axonal regeneration, and neurodegenerative disease models.

Application Notes

Optimal dilution of the Peripherin/PRPH antibody should be determined by the researcher.

Immunogen

Amino acids QKEQHSDLDKSSIH were used as the immunogen for this Peripherin/PRPH antibody.

Storage

Aliquot and store the Peripherin/PRPH antibody at -20oC.