SANTA CRUZ BIOTECHNOLOGY, INC.

Peripherin (C6): sc-53992

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Peripherin is a type III intermediate filament protein (IFP) that is expressed in peripheral and some central nervous system (CNS) neurons. 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.

REFERENCES

1. Thompson, M.A. and Ziff, E.B. 1989. Structure of the gene encoding Peripherin, an NGF-regulated neuronal-specific type III intermediate filament protein. Neuron 2: 1043-1053.
2. Cui, C., Stambrook, P.J. and Parysek, L.M. 1995. Peripherin assembles into homopolymers in SW13 cells. J. Cell Sci. 108: 3279-3284.
3. Sterneck, E., Kaplan, D.R. and Johnson, P.F. 1996. Interleukin-6 induces expression of Peripherin and cooperates with Trk receptor signaling to promote neuronal differentiation in PC-12 cells. J. Neurochem. 67: 1365-1374.
4. Leconte, L., Santha, M., Fort, C., Poujeol, C., Portier, M.M. and Simonneau, M. 1996. Cell type-specific expression of the mouse Peripherin gene requires both upstream and intragenic sequences in transgenic mouse embryos. Brain Res. Dev. Brain Res. 92: 1-9.
5. Angelastro, J.M., Ho, C.L., Frappier, T., Liem R.K. and Greene, L.A. 1998. Peripherin is tyrosine-phosphorylated at its carboxyl-terminal tyrosine. J. Neurochem. 70: 540-549.
6. Lecomte, M.J., Basseville, M., Landon, F., Karpov, V. and Fauquet, M. 1998. Transcriptional activation of the mouse Peripherin gene by leukemia inhibitory factor: involvement of Stat proteins. J. Neurochem. 70: 971-982.

SOURCE

Peripherin (C6) is a mouse monoclonal antibody raised against Peripherin of bovine origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Peripherin (C6) is recommended for detection of Peripherin of bovine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of Peripherin: 57 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.