

PGP9.5

Concentrated Monoclonal Antibody
Control Number: 901-329-011615

ISO
9001&13485
CERTIFIED

Catalog Number: CM 329 AK
Description: 0.1 ml, concentrated
Dilution: 1:250-1:500
Diluent: DaVinci Green

Intended Use:

For In Vitro Diagnostic Use

Summary and Explanation:

Protein Gene Product 9.5 (PGP 9.5) is also known as ubiquitin C-terminal hydrolase 1 (UCHL-1). Expression of PGP9.5 is highly specific to neurons and to cells of the diffuse neuroendocrine system and their tumors. The PGP9.5 gene encodes two opposing enzymatic activities that affect alpha-synuclein degradation and Parkinson's disease susceptibility. It is estimated that PGP9.5 comprises 1-2 % of total soluble proteins in the brain. Immunohistochemistry of routinely processed neuronal tissues has identified central and peripheral nerve fibers of all types. PGP9.5 has been identified in renal tubule, spermatogonia, Leydig cells of the testis and in pregnant and non pregnant corpus luteum.

Principle of Procedure:

Antigen detection in tissues and cells is a multi-step immunohistochemical process. The initial step binds the primary antibody to its specific epitope. After labeling the antigen with a primary antibody, an enzyme labeled polymer is added to bind to the primary antibody. This detection of the bound antibody is evidenced by a colorimetric reaction.

Source: Mouse monoclonal

Species Reactivity: Rat and mouse

Clone: 31A3

Isotype: IgG1

Total Protein Concentration: ~10 mg/ml. Call for lot specific Ig concentration.

Epitope/Antigen: PGP9.5

Cellular Localization: Cytoplasmic

Known Applications:

Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

Supplied As: Buffer with protein carrier and preservative.

Da Vinci Green Diluent (PD900), Trypsin Kit (TRP955KG)

Storage and Stability:

Store at 2°C to 8°C. Do not use after expiration date printed on vial. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user. Diluted reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C.

Protocol Recommendations:

Peroxide Block: Block for 5 minutes with Biocare's Peroxidized 1.

Pretreatment Solution (recommended): N/A

Pretreatment Protocol:

Digestion Method:

Incubate for 15 minutes at RT or 5 minutes at 37°C with Biocare's Carezyme I-Trypsin Kit (1:1 dilution).

Protein Block:

Optional: Incubate for 10-15 minutes at RT with Biocare's Background Sniper.

Primary Antibody: Incubate for 60 minutes at RT.

Probe: N/A

Polymer: Incubate for 20 minutes at RT with a Polymer.

Protocol Recommendations Cont'd:

Chromogen:

Incubate for 5 minutes at RT when using Biocare's DAB. - OR - Incubate for 10-20 minutes at RT when using Biocare's Vulcan Fast Red.

Counterstain:

Counterstain with Hematoxylin. Rinse with deionized water. Apply Tacha's Bluing solution for 1 minute. Rinse with deionized water.

Technical Note:

This antibody has been standardized with Biocare's Mouse on Mouse Polymer (mouse tissue) and Mouse on Rat Polymer (rat tissue). It can also be used on an automated staining system and with other Biocare polymer detection kits. Use TBS buffer for washing steps. Consider the use of Rodent Block M (mouse tissue) or Rodent Block R (rat tissue) if endogenous tissue cross-reactivity is problematic.

Limitations:

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to: fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Biocare products. Ultimately, it is the responsibility of the investigator to determine optimal conditions. These products are tools that can be used for interpretation of morphological findings in conjunction with other diagnostic tests and pertinent clinical data by a qualified pathologist.

Quality Control:

Refer to NCCLS Quality Assurance for Immunocytochemistry approved guidelines, December 1999 MM4-A Vol.19 No.26 for more information about tissue controls.

Precautions:

This antibody contains less than 0.1% sodium azide. Concentrations less than 0.1% are not reportable hazardous materials according to U.S. 29 CFR 1910.1200, OSHA Hazard communication and EC Directive 91/155/EC.

Sodium azide (NaN₃) used as a preservative is toxic if ingested. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. (Center for Disease Control, 1976, National Institute of Occupational Safety and Health, 1976)

Specimens, before and after fixation, and all materials exposed to them should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come in contact with sensitive areas, wash with copious amounts of water.

Microbial contamination of reagents may result in an increase in nonspecific staining. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change. The MSDS is available upon request.

Troubleshooting:

Follow the antibody specific protocol recommendations according to data sheet provided. If atypical results occur, contact Biocare's Technical Support at 1-800-542-2002.

PGP9.5

Concentrated Monoclonal Antibody
Control Number: 901-329-011615

ISO
9001&13485
CERTIFIED

References:

1. Wilson PO et al. The immunolocalization of protein gene product 9.5 using rabbit polyclonal and mouse monoclonal antibodies. Br J Exp Pathol. 1998 Feb; 69(1): 91-104.
2. Romeo HE et al. Protein gene product (PGP) 9.5 immunoreactivity in nerve fibers and pinealocytes of guinea pig pineal gland: interrelationship with tyrosine... Cell Tissue Res. 1993 Mar; 271(3): 477-84.
3. Krammer HJ et al. Immunohistochemical visualization of the enteric nervous system using antibodies against protein gene product (PGP) 9.5. Ann Anat. 1993 Aug; 175(4):321-5.
4. Ramos-Vara JA, Miller MA. Immunohistochemical detection of protein gene product 9.5 (PGP 9.5) in canine epitheliotropic T-cell lymphoma (mycosis fungoides). Vet Pathol. 2007 Jan; 44(1): 74-9.
5. Center for Disease Control Manual. Guide: Safety Management, NO. CDC-22, Atlanta, GA. April 30, 1976 "Decontamination of Laboratory Sink Drains to Remove Azide Salts."
6. National Committee for Clinical Laboratory Standards (NCCLS). Protection of laboratory workers from infectious diseases transmitted by blood and tissue; proposed guideline. Villanova, PA 1991;7(9). Order code M29-P.