

Amyloid P

Prediluted Polyclonal Antibody
901-132-071417

BIOCARE
M E D I C A L

Catalog Number: PP 132 AA

Description: 6.0 ml, prediluted

Dilution: Ready-to-use

Diluent: N/A

Intended Use:

For In Vitro Diagnostic Use

Summary and Explanation:

Amyloidosis is a heterogeneous group of disorders characterized by extracellular deposition of abnormal protein fibrils, which are derived from different proteins. Almost all patients with amyloidosis have some level of renal disorders. Amyloid P antibody reacts with amyloid deposits in all tissues including kidney, rectum and brain. The application of Amyloid P and Amyloid A antibodies in tissues with amyloid deposits has been shown to be superior to Congo Red and other histochemical stains. The immunoperoxidase technique has the advantage of being able to detect amyloid in formalin-fixed paraffin embedded tissues and is a very specific method for identifying amyloid fibril proteins. Small and minute amounts of amyloid can be detected with both Amyloid P and Amyloid A antibodies, and thus could allow earlier treatment before organ damage has occurred.

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. The detection of the bound antibody is evidenced by a colorimetric reaction.

Source: Rabbit polyclonal

Species Reactivity: Human; others not tested

Clone: N/A

Isotype: N/A

Epitope/Antigen: Amyloid P

Cellular Localization: Amyloid fibrils

Positive Control: Amyloid deposits in kidney, or other amyloid-infiltrated tissue

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

Known Applications:

Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

Supplied As: Buffer with protein carrier and preservative.

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 PEROXIDAZED 1.

Pretreatment Solution (recommended): N/A

Pretreatment Protocol:

Digestion Method:

Digest with Pepsin enzyme for 5 minutes at 37°C- or - for 15 minutes at RT.

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

Primary Antibody: Incubate for 30 minutes at RT.

N/A

Incubate for 30 minutes at RT with a Polymer.

Probe: N/A

Protocol Recommendations Cont'd:

Polymer: Incubate for 30 minutes at RT with a Polymer.

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.

Technical Note:

This antibody has been standardized with Biocare's MACH 2 detection system. It can also be used on an automated staining system and with other Biocare polymer detection kits. Use TBS buffer for washing steps.

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 (Na₃N) 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.

References:

1. Suwabe H, Serizawa A, Kajiwara H, Ohkido M, Tsutsumi Y. Degenerative processes of elastic fibers in sun-protected and sun-exposed skin: immunoelectron microscopic observation of elastin, fibrillin-1, amyloid P component, lysozyme and alpha1-antitrypsin. *Pathol Int.* 1999 May;49(5):391-402.

2. Cui D, Hoshii Y, Takahashi M, Kawano H, Iwata T, Ishihara T. An immunohistochemical study of amyloid P component, apolipoprotein E

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and ubiquitin in human and murine amyloidoses. *Pathol Int* 1998 May;48(5):362-7.

3. Wagrowska-Danilewicz M, Danilewicz M. Immunohistochemical characterization of amyloid fibril precursors renal tissue. *Acta Histochem* 1996 Jul;98(3):301-8.

4. Linke RP, Gartner HV, Michels H. High-sensitivity diagnosis of AA amyloidosis using Congo red and immunohistochemistry detects missed amyloid deposits. *J Histochem. Cytochem* 1995 Sep;43(9):863-9.

5. Ko LW, Sheu KF, Blass JP. Immunohistochemical colocalization of amyloid precursor protein with cerebrovascular amyloid of Alzheimer's disease. *Am J Pathol* 1991 Sep;139(3):523-33.

6. Hind CR, Tennent GA, Evans DJ, Pepys MB. Demonstration of amyloid A (AA) protein and amyloid P component (AP) in deposits of systemic amyloidosis associated with renal adenocarcinoma. *J Pathol* 1983 Feb;139(2):159-66.

7. 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."

8. 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.