

**β-Amyloid****Concentrated Monoclonal Antibody**

Control Number: 901-333-112509

**ISO
9001:2000
CERTIFIED**

Catalog Number: CM 333 AK
Description: 0.1ml, concentrated
Dilution: 1:500-1:750
Diluent: Da Vinci Green

Intended Use:

For In Vitro Diagnostic Use

Summary and Explanation:

Beta amyloid fragments tend to accumulate in Alzheimer's disease (AD) to form hard insoluble plaques between neurons in the hippocampus and neocortex of the brain. Presence of these plaques and the associated senile dementia that ensue are hallmarks of this disease. Beta amyloid antibody clone 6E10 can be used to determine the level of plaque burden in AD brain tissue since it specifically reacts with amino acid residues 1-16 of the beta amyloid peptide.

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, a MACH 2 enzyme labeled polymer is added to bind to the primary antibody. The detection of the bound antibody is evidenced by a colorimetric reaction.

Source: Mouse monoclonal**Species Reactivity:** Human**Clone:** 6E10**Isotype:** IgG₁**Total Protein Concentration:** ~10 mg/ml. Call for lot specific Ig Concentration.**Epitope/Antigen:** β-Amyloid**Cellular Localization:** Cytoplasmic**Positive Control:** Alzheimer's diseased brain**Normal Tissue:** N/A**Abnormal Tissue:** Alzheimer's diseased brain**Known Applications:**

Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

Supplied As: Buffer with protein carrier and preservative.

Da Vinci Green Diluent (PD900)

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:**

If using an HRP system, block for 5 minutes with BIOCARE's PEROXIDAZED 1.

Pretreatment Solution (recommended): Diva**Pretreatment Protocol:**

Heat Retrieval Method:

Retrieve sections at 80°C for 1 hour using BIOCARE's Decloaking Chamber, followed by a wash in distilled water. Alternatively, steam tissue sections for 45-60 minutes.

Allow solution to cool for 20 minutes then wash in distilled water. A significant increase in titer is achieved using Biocare's Diva retrieval solution.

Protein Block:

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 30 minutes at RT with a Polymer.**Chromogen:**

Incubate for 5 minutes at RT when using BIOCARE's DAB. - OR - Incubate for 10 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.

Performance Characteristics:

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.

Limitations and Warranty:

There are no warranties, expressed or implied, which extend beyond this description. BIOCARE is not liable for property damage, personal injury, or economic loss caused by this product.

References:

1. Mayeux R et al. Plasma Amyloid beta-peptide 1-42 and incipient Alzheimer's disease. *Ann Neurol*. 1999 Sep; 46(3): 412-6.
2. Jung SS et al. Beta-amyloid precursor protein is detectable on monocytes and is increased in Alzheimer's disease. *Neurobiol Aging*. 1999 May-Jun; 20(3): 249-57.
3. Terai K et al. Beta-amyloid deposits in transgenic mice expressing human beta-amyloid precursor protein have the same characteristics as those in Alzheimer's disease. *Neuroscience*. 2001; 104(2): 299-310.
4. Kraszpulski M et al. Pitfalls in the quantitative estimation of beta-amyloid immunoreactivity in human brain tissue. *Histochem Cell Biol*. 1998 Oct; 110(4):439-45.

