

Anti- human Pan Cytokeratin (AE1/AE3) Mouse Monoclonal Primary Antibody Cocktail

IVD**REF** CE00083**CATALOG NUMBER**

C0083MA01-MA 0.1 mL
C0083MA05-MA 0.5 mL
C0083MA10-MA 1.0 mL

ENGLISH**Intended use**

Anti- human Pan Cytokeratin (AE1/AE3) Mouse Monoclonal Primary Antibody is intended for detection of acidic and basic cytokeratin protein expression in frozen or formalin fixed human tissues and cells. The clinical interpretation of any positive staining or its absence should be complemented by morphological and histological studies with proper controls. Evaluations should be made within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist. The antibody is intended for *in vitro* diagnostic (IVD) use.

Background

Cytokeratin refers to a large family of insoluble, fibrous proteins which is the key component of human epithelial tissues, hair and nails. Although the term keratin was historically used for general proteins extracted from skin modifications, a large number of specific sequences of keratins have been identified. They are used as markers for tumors resulted from epithelial malignancies. While the composition of keratins can change, based on the cell type, stage of differentiation and the cellular growth environment, the specific keratin expression of the tumor largely can be associated with the cell of origin. Clone AE1 has been known to bind to the acidic subfamily of keratins, and AE3 is known to bind to the basic subfamily.

Alternative names: keratin, KRT, CK

Reagent provided

Anti-human Pan-CK Mouse Monoclonal Primary Antibody (Clone: AE1/AE3) is provided in liquid form in 20mM Sodium phosphate, 150mM Sodium chloride, 0.2% BSA, 0.09% Sodium azide, pH 7.4. The isotypes of the antibody are IgG1. The protein concentration is approximately 0.15 +/- 0.05 mg/mL.

For immunohistochemistry, the primary antibody may be used at a working dilution of 1:100 – 1:200 for formalin-fixed, paraffin-embedded human tissue. It can be dependent upon the detection system used. These are guidelines only, and optimal dilutions should be determined by the individual laboratory.

Immunogen

Human epidermal keratins

Specificity

The specificity of the anti- human Pan Cytokeratin (AE1/AE3) Mouse Monoclonal Primary Antibody was established on known

positive kidney and lung cancer. The anti-human Pan Cytokeratin (AE1/AE3) presented no staining on formalin fixed, human muscle and positive staining on formalin fixed kidney and lung cancer, using immunohistochemical (IHC) test methods.

Materials Required but Not Supplied

Antibody diluent, HIER solution, Antibody detection kits, Chromogen, Staining reagents, negative and positive tissue control slides are not included.

Precautions

1. For use by trained professionals only.
2. This product contains sodium azide (NaN₃), a chemical highly toxic in pure form. At product concentrations, though not classified as hazardous, NaN₃ may react with lead and copper plumbing to form highly explosive build-ups of metal azides. Upon disposal, flush with large volumes of water to prevent metal azide build-up in plumbing.
3. Wear appropriate Personal Protective Equipment to avoid contact with eyes and skin.
4. Unused reagents should be disposed of according to local, State, and Federal regulations.

Storage

Store at 2-8°C. Do not use the product past the expiration date indicated on the label. If reagents are stored under any other conditions, the end user must verify the acceptability of those conditions. There are no obvious signs to indicate instability of this product therefore, positive and negative controls should be run simultaneously with patient specimens.

Specimen Preparation

Paraffin Sections

Anti- human Pan Cytokeratin (AE1/AE3) Mouse Monoclonal Primary Antibody can be used on formalin-fixed, paraffin-embedded tissue sections at a working dilution of 1:100 to 1:200. Anti- human Pan Cytokeratin (AE1/AE3) Mouse Monoclonal Primary Antibody working dilution requires 10 minutes pretreatment with Heat Induced Epitope Retrieval (HIER) for staining. We recommend using Accel 3in1 HIER EDTA pH 8.7, which showed optimal staining at a dilution of 1:200 on human kidney and lung cancer and negative staining on normal human muscle. The dilutions are estimates; the actual staining results may vary due to reagents and detection protocols used. Validation of antibody performance and final protocol are the responsibility of the end user.

Staining procedure

Manual Staining Procedure

1. Deparaffinize slides.
2. Submerge slides in peroxidase quenching solution for ~10 minutes and rinse with PBS-T 3 times, 2 minutes each.
3. Heat Induced Epitope Retrieval is required for this antibody.
4. Apply serum blocking solution.[Optional]
5. Apply primary antibody and incubate for 30-60 minutes at room temperature. After incubation wash with PBS-T 3 times, 2 minutes each.
6. Apply secondary antibody and incubate according to the data sheet of the detection system. Wash with PBS-T 3 times, 2 minutes each.
7. Apply enzyme conjugate and incubate according to data sheet of detection system. Wash with PBS-T 3 times, 2 minutes each.
8. Apply chromogen and incubate 5-10 minutes and rinse with distilled water.

Staining interpretation

The cellular staining pattern for Anti- human Pan Cytokeratin (AE1/AE3) Mouse Monoclonal Primary Antibody is cytoplasmic and membranous.

Performance Characteristics

Predicted Staining in Normal Tissue/Cells

Muscle tissue was shown to be negative for this antibody.

Predictive Staining in Tumor

Anti- human Pan Cytokeratin (AE1/AE3) Mouse Monoclonal produced strong cytoplasmic and membranous staining when screened on human kidney and lung cancer.

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