



# Anti- human Cytokeratin 19 (CK19) Mouse Monoclonal Primary Antibody

Clone: UMAB2

**IVD**

**REF** CE00013

## CATALOG NUMBER

C0013MA01-MA 0.1 mL  
C0013MA05-MA 0.5 mL  
C0013MA10-MA 1.0 mL

## ENGLISH

### Intended use

Anti- human CK19 (Clone: UMAB2) Mouse Monoclonal Primary Antibody is intended for detection of CK19 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

Keratin 19 is a member of the keratin family. The keratins are intermediate filament proteins responsible for the structural integrity of epithelial cells and are subdivided into cytokeratins and hair keratins. The type I cytokeratins consist of acidic proteins which are arranged in pairs of heterotypic keratin chains. Unlike its related family members, this smallest known acidic cytokeratin is not paired with a basic cytokeratin in epithelial cells. It is specifically expressed in the periderm, the transiently superficial layer that envelops the developing epidermis.

Alternative names: CK 19, Keratin 19, Type 1 cytoskeletal 19, KRT19

### Reagent provided

Anti-human Cytokeratin 19 Mouse Monoclonal Primary Antibody (Clone: UMAB2) is provided in liquid form in 20mM Sodium phosphate, 150mM Sodium chloride, 0.2% BSA, 0.09% Sodium azide, pH 7.4. The isotype of the antibody is IgG1. The protein concentration is approximately 0.2 +/- 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

Recombinant fragment expressed in E.coli corresponding to amino acids 240-390 of human CK19.

## Specificity

The specificity of the anti-human Cytokeratin 19 Mouse Monoclonal Primary Antibody was established on known positive human colon cancer and negative anaplastic oligodendroglioma. The anti-human Cytokeratin 19 monoclonal antibody presented no staining on formalin fixed negative anaplastic oligodendroglioma and positive staining on formalin fixed positive human colon cancer tissue 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 ( $\text{NaN}_3$ ), a chemical highly toxic in pure form. At product concentrations, though not classified as hazardous,  $\text{NaN}_3$  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 Cytokeratin 19 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 Cytokeratin 19 Mouse Monoclonal Primary Antibody (Clone: UMAB2) working dilution requires pretreatment with trypsin for staining, which showed optimal staining at a dilution of 1:200 on positive human colon cancer and negative staining on normal human anaplastic oligodendroglioma. 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. Enzyme pre-treatment is required. Add Trypsin Solution (GIBCO labs E05-18) for 15 minutes at 37°C.
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 CK19 Mouse Monoclonal Primary Antibody is cytoplasmic.

## Performance Characteristics

### Predicted Staining in Negative Expressing Tissue/Cells

Human anaplastic oligodendroglioma was shown to be negative for this antibody.

### Predictive Staining in Tumor

Anti-human Cytokeratin 19 Mouse Monoclonal (Clone: UMAB2) produced strong cytoplasmic staining when screened on positive human colon cancer tissue.

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