

## LMWK (CAM 5.2)

Format	Catalog no.	Pack size	Dilution
Concentrated	GB 08LM A,B,C	0.1,0.5,1.0 mL	1:100
Prediluted	GB 08LM AA	6.0 mL	Ready to use

### PRODUCT DESCRIPTION -

The **LMWK (CAM 5.2)** antibody is a monoclonal antibody that targets a specific epitope present on **cytokeratin proteins**, primarily **cytokeratin 8** and **cytokeratin 18**. These are intermediate filament proteins that are expressed in epithelial cells, which are the cells that line the surfaces of organs and structures throughout the body. The CAM 5.2 antibody is widely used in **immunohistochemistry (IHC)** to detect these cytokeratins in tissue samples.

### INTENDED USE -

Intended for In Vitro Diagnostic Applications

LMWK (CAM 5.2) is a mouse monoclonal antibody that is intended for professional laboratory use after the initial diagnosis of tumor has been made by conventional histopathology using nonimmunologic histochemical stains, in the qualitative identification of LMWK (CAM 5.2) protein by immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical interpretation of any staining or its absence should be complemented by morphological studies using proper controls and should be evaluated within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist as an aid in making any other clinical determinations.

### SUMMARY AND EXPLANATION -

Cytokeratins are important structural components of epithelial cells, contributing to cell shape, integrity, and the ability to resist mechanical stress. Different types of cytokeratins are found in various epithelial tissues, and their expression can be used. The LMWK (CAM 5.2) antibody specifically binds to **low-molecular-weight cytokeratins** (such as cytokeratins 8 and 18), which are commonly found in the **epithelial cells** of various tissues, including those in the gastrointestinal tract, lung, and reproductive organs.

### PRINCIPLE OF PROCEDURE -

The identification of antigens in tissues and cells is a multi-step immunohistochemistry procedure.

The first step attaches the primary antibody to its designated epitope. Following the tagging of the antigen with a primary antibody, either a one-step or two-step detection method may be employed. A single-step procedure will utilize a polymer tagged with an enzyme that attaches to the main antibody. A two-step approach will involve the addition of a linker antibody to connect with the main antibody. An enzyme-conjugated polymer is subsequently introduced to bind the linker antibody. The presence of bound antibodies is demonstrated by a colorimetric response.

**SOURCE** - Mouse monoclonal

**SPECIES REACTIVITY** - Human; other species not tested

**CLONE**- CAM5.2

**ISOTYPE** - IgG2a/K

**PROTEIN CONCENTRATION** - Call for lot specific Ig concentration.

**EPITOPE/ANTIGEN** - The **CAM 5.2** antibody recognizes a **conformational epitope** on the **cytokeratins 8 and 18** proteins. These proteins are expressed in the **epithelial cells** of various tissues.

**CELLULAR LOCALISATION** - Cytoplasmic

**POSITIVE TISSUE CONTROL** - Colon, Breast, Ovarian Carcinoma

**KNOWN APPLICATIONS**- Immunohistochemistry


30-40 min. At RT. Staining of formalin-fixed tissues requires heating tissue sections in between pH 7.4 - 9.0 for 45 min at 95°C followed by cooling at room temperature for 20 minutes.

**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

**Materials required but not provided** -

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- 1) Positive tissue control - Colon, Breast, Ovarian Carcinoma
  - 2) Negative control tissue(internal or external)
  - 3) Microscope slides and coverslips
  - 4) Staining jars or baths

- 5) Timer
- 6) Xylene or xylene substitute
- 7) Ethanol or reagent alcohol
- 8) Deionized or distilled water
- 9) Heating equipment or enzyme for tissue pretreatment step
- 10) Detection system
- 11) Chromogen
- 12) Wash buffer
- 13) Hematoxylin
- 14) Antibody diluents
- 15) Peroxide block
- 16) Light microscope
- 17) Mounting medium

### **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 Genebio products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.

