

CYTOKERATIN 7

Format	Catalog no.	Pack size	Dilution
Concentrated	GB 339 A, C	0.1, 1.0 mL	1:100
Prediluted	GB 339 AA	6.0 mL	Ready to use

PRODUCT DESCRIPTION -

A 54 kDa intermediate filament protein (IFP) called cytokeratin 7 can identify the simple epithelium of most glandular and transitional epithelia, but it cannot distinguish between the simple and stratified squamous epithelia. Clone BC1, a rabbit monoclonal antibody, binds only to cytokeratin 7 and has no effect on other IFPs. The ovarian, lung, and breast epithelial cells exhibit cytokeratin 7. When combined with cytokeratin 20 and CDX-2, it can differentiate CK7+ ovarian, breast, and lung carcinomas from CK7-, the majority of colon carcinomas.

INTENDED USE -

In Vitro Diagnostics The CK7 [BC1] rabbit monoclonal antibody is designed for use in immunohistochemistry (IHC) as a qualitative marker in human tissues that have been preserved in formalin-fixed paraffin-embedded (FFPE). Morphological studies with appropriate controls should supplement clinical interpretation of staining or lack thereof; these findings should then be assessed by a trained pathologist in light of the patient's medical history and other diagnostic testing.

SUMMARY AND EXPLANATION -

Although it does not detect the stratified squamous epithelium, the 54 kDa intermediate filament protein (IFP) cytokeratin 7 does identify the simple epithelium present in the majority of glandular and transitional epithelia. The clone BC1 rabbit monoclonal antibody identifies cytokeratin 7 with a high degree of specificity and does not react with any other IFPs. The epithelial cells of the ovaries, lungs, and breasts exhibit cytokeratin 7. Used in combination with cytokeratin 20 and CDX-2, it can differentiate CK7+ ovarian, breast, and lung carcinomas from CK7-, the majority of colon carcinomas.

PRINCIPLE OF PROCEDURE -

Immunohistochemistry is a multi-step method that can be used to detect antigens in cells and tissues. The primary antibody is bound to its specific epitope in the initial

stage. A primary antibody can be used to identify the antigen, and then a one-step or two-step detection technique can be employed. An enzyme-labeled polymer will bind the main antibody in a one-step process. The addition of a linker antibody to attach to the primary antibody is the second stage of a two-phase process. After that, the linker antibody is bound using an enzyme-labeled polymer. As proof of these antibody binding detections, a colorimetric reaction is observed.

SOURCE - Rabbit monoclonal

SPECIES REACTIVITY - Human

CLONE - BC1

ISOTYPE - IgG

PROTEIN CONCENTRATION - Call for lot specific Ig concentration.

EPITOPE/ANTIGEN - CK7

CELLULAR LOCALISATION - Cytoplasmic

POSITIVE TISSUE CONTROL - Breast, lung or ovarian cancers

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 -

- 1) Positive tissue control - Breast, lung or ovarian cancers
- 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.