GENE BIO SOLUTION

CYTOKERATIN 5

Format	Catalogno.	Pack size	Dilution
Concentrated	GB234A,C	0.1, 1.0 mL	1:50
Prediluted	GB234AA	6.0 mL	Ready to use

PRODUCT DESCRIPTION -

An antibody against cytokeratin 5, a 58 kDa protein closely similar to CK6, is available. According to the results of the ELISA, the XM26 clone tested positive for CK5 but negative for CK6. Many stratified squamous epithelia, including the trachea, basal epithelia, hair follicles, and the tongue mucosa, contain CK5. Basal cells of the prostate gland, myoepithelial cells of the mammary gland, and the majority of epithelial and biphasic mesotheliomas express it as well. Many investigations have shown that CK5 is expressed in lung squamous cell carcinomas and big cell carcinomas. When it came to detecting basal-like cancers in the breast, CK5 had a sensitivity of 97%, but CK5/6 only managed 59%.

INTENDED USE -

For In Vitro Diagnostic Purposes Cytokeratin 5 (CK5) [XM26] is a monoclonal antibody raised in mice that has been developed for the purpose of performing immunohistochemistry (IHC) on 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 studies should be reviewed by a trained pathologist in light of the patient's medical history and other diagnostic testing.

SUMMARY AND EXPLANATION -

Related to CK6 is CK5, a 58 kDa protein. Antibodies that were positive for CK5 but negative for CK6 were screened for using an ELISA. The XM26 clone tested positive for CK5 and negative for CK6, according to the results. CK5 is present in several stratified squamous epithelia that do not produce keratin, including the mucosa of the tongue, the basal epithelium of hair follicles, the trachea, basal cells of prostate glands, and myoepithelial cells of mammary glands. Biphasic and epithelial mesotheliomas both express CK5. Additionally, CK5 has been detected in lung squamous cell carcinomas and big cell carcinomas.

PRINCIPLES 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 one-, two-, or three-step detection approach can be used after the antigen has been labeled with a primary antibody. An enzyme-labeled polymer will attach to the main antibody in the one-step method. The addition of a secondary antibody to bind to the first antibody is the second stage of a two-phase process. The next step is to attach the secondary antibody with an enzyme-labeled polymer. A secondary antibody will be added to the three-step detection technique to attach to the main antibody, and then a linker antibody will be used for maximal binding. To bind to the linker antibody, an enzyme-labeled polymer is subsequently added. As proof of these antibody binding detections, a colorimetric reaction is observed.

SOURCE - Mouse monoclonal

SPECIES REACTIVITY - Human; others not tested

CLONE - XM26

ISOTYPE - IgG1/kappa

PROTEIN CONCENTRATION - Call for lot specific Ig concentration.

EPITOPE/ANTIGEN - CK5

CELLULAR LOCALISATION - Cytoplasmic

POSITIVE TISSUE CONTROL - Normal prostate

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) Positivetissuecontrol-Normalprostate

2) Negativecontroltissue(internalorexternal)
3) Microscopeslidesandcoverslips
4) Stainingjarsorbaths
5) Timer
6) Xyleneorxylenesubstitute
7) Ethanolorreagentalcohol
8) Deionizedordistilledwater
9) Heatingequipmentorenzymefortissuepretreatmentstep
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.