Uroplakin III

Concentrated and Prediluted Monoclonal Antibody

Control Number: 902-3023-091017

Catalog Number:	**ACR 3023 A, C**	**APR 3023 AA**
Description:	0.1, 1.0 ml, concentrated	6.0 ml prediluted
Dilution:	1:100-1:200	Ready-to-use
Diluent:	Van Gogh Yellow	N/A

Intended Use:
For Research Use Only. Not for use in diagnostic procedures.

Summary and Explanation:
Uroplakin III is a 47 kDa glycoprotein present in the urothelial surface membrane of human renal pelvis, ureter, bladder and urethra (1-4). In house studies have shown Uroplakin III clone BC17 has a higher sensitivity (33/59, 56%), compared with clone AU1 (19/58, 32%) on urothelial transitional cell carcinomas. With the exception of bladder, BC17 staining was negative in all normal and neoplastic tissues including breast, lung, colon, prostate, kidney, ovarian, liver and pancreatic cancers; therefore, clone BC17 is highly specific to uroepithelial tumors and may be useful in aiding the discrimination of bladder, renal and prostate cancers. Conversely, loss of Uroplakin III expression in bladder cancers has been associated with higher grade, muscle-invasive cancer and lymphovascular invasion (1). This mouse monoclonal Uroplakin III has been shown to be superior to clone AU1 and may be used in a panel of antibodies including GATA3, p63 and S100P. *PATENT PENDING*

Principle of Procedure:
Antigen detection in tissues and cells is a multi-step immunohistochemical process. The initial step binds the primary antibody to its specific epitope. After labeling the antigen with a primary antibody, a secondary antibody is added to bind to the primary antibody. An enzyme label is then added to bind to the secondary antibody; this detection of the bound antibody is evidenced by a colorimetric reaction.

Source: Mouse monoclonal

Species Reactivity: Humans, others not tested

Clone: BC17

Isotype: IgG1

Total Protein Concentration: ~10 mg/ml. Call for lot specific Ig concentration

Epitope/Antigen: Uroplakin III

Cellular Localization: Membrane and cytoplasmic

Positive Tissue Control: Bladder cancer

Known Applications:
Immunohistochemistry (formalin-fixed paraffin-embedded tissues).

Supplied As: Buffer with protein carrier and preservative

Storage and Stability:
Store at 2ºC to 8ºC. 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 2ºC to 8ºC.

Staining Protocol Recommendations:

Peroxide Block: Block for 5 minutes with Biocare's Peroxidazed 1.

Pretreatment: Perform heat retrieval using Biocare's Reveal Decloaker. Refer to the Reveal Decloaker product datasheet for specific instructions.

Protein Block (Optional): Incubate for 5-10 minutes at RT with Biocare's Background Punisher.

Primary Antibody: Incubate for 30 minutes at RT.

Probe: Incubate for 10 minutes at RT with a secondary probe.

Polymer: Incubate for 10 minutes at RT with a tertiary polymer.

Chromogen: Incubate for 5 minutes at RT with Biocare's DAB –OR– Incubate for 5-7 minutes at RT with Biocare's Warp Red.

Counterstain: Counterstain with hematoxylin. Rinse with deionized water. Apply Tacha's Bluing Solution for 1 minute. Rinse with deionized water.

Technical Note:
This antibody has been standardized with Biocare's MACH 4 detection system. It can also be used on an automated staining system and with other Biocare polymer detection kits. Use TBS buffer for washing steps.

Limitations:
This product is provided for Research Use Only (RUO) and is not for use in diagnostic procedures. Suitability for specific applications may vary and it is the responsibility of the end user to determine the appropriate application for its use.

Precautions:
1. This antibody contains less than 0.1% sodium azide. Concentrations less than 0.1% are not reportable hazardous materials according to U.S. 29 CFR 1910.1200, OSHA Hazard communication and EC Directive 91/155/EC. Sodium azide (NaN_3) used as a preservative is toxic if ingested. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. (Center for Disease Control, 1976, National Institute of Occupational Safety and Health, 1976) (6)
2. Specimens, before and after fixation, and all materials exposed to them should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come in contact with sensitive areas, wash with copious amounts of water. (7)
3. Microbial contamination of reagents may result in an increase in nonspecific staining.
4. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change.
5. Do not use reagent after the expiration date printed on the vial.
6. The MSDS is available upon request and is located at http://biocare.net/support/msds/.

Technical Support:
Contact Biocare's Technical Support at 1-800-542-2002 for questions regarding this product.

References:

1. Matsumoto K, *et al.* Loss expression of uroplakin III is associated with clinicopathologic features of aggressive bladder cancer. Urology. 2008 Aug; 72(2):444-9.
2. Koga F, *et al.* Impaired p63 expression associates with poor prognosis and uroplakin III expression in invasive urothelial carcinoma of the bladder. Clin Cancer Res. 2003 Nov 15; 9(15):5437-41.
3. Brown HM, *et al.* Uroplakin-III to distinguish primary vulvar Paget disease from Paget disease secondary to urothelial carcinoma. Hum Pathol. 2002 May; 33 (5):545-8.
4. Riedel I, *et al.* Brenner tumors but not transitional cell carcinomas of the ovary show urothelial differentiation: immunohistochemical staining of urothelial markers, including cytokeratins and uroplakins. Virchows Arch. 2001 Feb; 438(2):181-91.
5. Moll R, *et al.* Uroplakins, specific membrane proteins of urothelial umbrella cells, as histological markers of metastatic transitional cell carcinomas. Am J Pathol. 1995 November;147(5):1383-1397.
6. Center for Disease Control Manual. Guide: Safety Management, NO. CDC-22, Atlanta, GA. April 30, 1976 "Decontamination of Laboratory Sink Drains to Remove Azide Salts."
7. Clinical and Laboratory Standards Institute (CLSI). Protection of Laboratory workers from occupationally Acquired Infections; Approved guideline-Third Edition CLSI document M29-A3 Wayne, PA 2005.

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