ANTIGEN: UROPLAKIN III

ANTISERUM: Research Diagnostics (RDI-PRO610108). Mouse monoclonal antibody. Clone AU1. isotype: IgG1

IMMUNOGEN: Asymmetric unit membrane preparation from bovine urinary bladder

PRESENTATION: Protein A affinity chromatography

REACTIVITY ACCORDING TO MANUFACTURER: Antibody AU1 reacts specifically with uroplakin III present in the superficial cell layer of the urothelium. Together with UP 1a, UP 1b, and UP II, uroplakin III contributes in constituting the asymmetrical unit membrane of the plaques of urothelial glycoprotein (47 kD) and has been shown to be a specific marker of terminal differentiation. Antibody AU1 strongly stains the urothelial surface membrane in paraffin sections of human renal pelvis, ureter, urinary bladder, and urethra. About 60% of human transitional cell carcinomas (including metastases) maintain focal (sometimes very limited) expression of uroplakin III. Uroplakin III may serve as a specific urothelial differentiation marker in cases of metastatic carcinomas with unclear primary tumor.

STAINING PROCEDURE ACCORDING TO MANUFACTURER: Suitable for paraffin-embedded tissues but not for frozen sections. Suggested dilution 1/10 with incubation at RT for 1h.

WORKING DILUTION: 1/160. Pretreatment with proteinase K, RT, 10 min.

METHOD: EnVision+/PO. 120 min. RT.

CELLS/TISSUES STAINED: Canine urothelium. Diffuse cytoplasmic to membrane staining of superficial (umbrella) cells, intracytoplasmic vacuoles (membrane and sometimes their contents), and some intermediate cells. No staining of basal cells or lower layers of intermediate cells. A retrospective study of almost 300 nonurothelial tumors did not show staining in any of the tumors examined (Ramos-Vara et al., 2003). Staining of canine transitional cell carcinomas is present in more than 90% of primary tumors and 80% of metastases (Ramos-Vara et al., 2003).

CROSS-REACTIVITY: Human, bovine, canine urothelium. Feline urothelium is probably nonreactive.

REFERENCES:


