

Urothelium (LBS 8): sc-53460

BACKGROUND

Urothelium refers to the tissue layer that lines most of the urinary tract, including the renal pelvis, the ureters, bladder and parts of the urethra. It is the most specialized epithelium in the body and plays important and conflicting roles: the Urothelium must act as a permeability barrier, protecting underlying tissues against noxious urine components, while also stretching to accommodate urine pressures. Urothelium consists of about 3-5 cell layers, accompanied by a thick layer of protective glycoprotein plaques at its luminal surface. Urothelium is especially susceptible to carcinoma, since the bladder is in direct contact with urine for extended periods of time and chemicals that become concentrated in the urine can cause bladder cancer. Cigarette smoking leads to the concentration of carcinogens in the urine and is a leading cause of bladder cancer.

REFERENCES

1. Trejdosiewicz, L.K. 1985. Monoclonal antibodies to human urothelial cell lines and hybrids: production and characterization. *J. Urol.* 133: 533-538.
2. Lorusso, V., et al. 2005. Randomised, open-label, phase II trial of paclitaxel, gemcitabine and cisplatin versus gemcitabine and cisplatin as first-line chemotherapy in advanced transitional cell carcinoma of the Urothelium. *Oncol. Rep.* 13: 283-287.
3. von der Maase, H. 2005. Pemetrexed in transitional cell carcinoma of the Urothelium. *Oncology* 18: 48-50.
4. Wein, A.J. 2005. Role of the Urothelium in bladder function. *J. Urol.* 173: 2199-2200.
5. Woodroffe, P.J., et al. 2005. Modelling cell signalling and differentiation in the Urothelium. *Bull. Math. Biol.* 67: 369-389.
6. Bellmunt, J., et al. 2006. Gemcitabine in the treatment of advanced transitional cell carcinoma of the Urothelium. *Ann. Oncol.* 17: v113-v117.
7. Khattab, M.M. and Al-Hrasen, M.N. 2006. Contractile activity of ATP and diadenosine tetraphosphate on urinary bladder in the rats: role of superoxide anion and Urothelium. *Auton. Autacoid Pharmacol.* 26: 149-156.
8. Lazzeri, M. 2006. The physiological function of the Urothelium—more than a simple barrier. *Urol. Int.* 76: 289-295.
9. Yoshida, M., et al. 2006. Non-neuronal cholinergic system in human bladder Urothelium. *Urology* 67: 425-430.

SOURCE

Urothelium (LBS 8) is a mouse monoclonal antibody raised against urothelial carcinoma-derived RT112 cells of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Urothelium (LBS 8) is available conjugated to agarose (sc-53460 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53460 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53460 PE), fluorescein (sc-53460 FITC), Alexa Fluor® 488 (sc-53460 AF488), Alexa Fluor® 546 (sc-53460 AF546), Alexa Fluor® 594 (sc-53460 AF594) or Alexa Fluor® 647 (sc-53460 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53460 AF680) or Alexa Fluor® 790 (sc-53460 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Urothelium (LBS 8) is recommended for detection of Urothelium of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RESEARCH USE

For research use only, not for use in diagnostic procedures.