SANTA CRUZ BIOTECHNOLOGY, INC.

2310043J07Rik (I-16): sc-249266

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The asymmetric unit membrane (AUM) forms numerous plaques, which cover the apical surface of the urothelium. These plaques are thought to strengthen the urothelium and reduce the risk of rupturing during ladder distention. They are composed of four major integral membrane proteins called uroplakins (UPs). The uroplakin family comprises UPIa, UPIb, UPII, and UPIII. Family members are conserved among several species, including human, mouse, rat, rabbit, canine, porcin and ovine. 2310043J07Rik, also known as Upk3bl (uroplakin-3b-like protein), is a 249 amino acid single-pass type I membrane protein that belongs to the uroplakin-3 family. 2310043J07Rik is the mouse homolog of human UPK3BL. UPK3BL, also a member of the uroplakin-3 family, is a 249 amino acid single-pass type I membrane protein that is encoded by a gene located on human chromosome 7q22.1.

REFERENCES

1. Lin, J.H., et al. 1994. Precursor sequence, processing, and urothelium-specific expression of a major 15-kDa protein subunit of asymmetric unit membrane. J. Biol. Chem. 269: 1775-1784.
2. Wu, X.R., et al. 1994. Mammalian uroplakins. A group of highly conserved urothelial differentiation-related membrane proteins. J. Biol. Chem. 269: 13716-13724.
3. Wu, X.R., et al. 1995. Selective interactions of UPIa and UPIb, two members of the transmembrane 4 superfamily, with distinct single transmembrane-domained proteins in differentiated urothelial cells. J. Biol. Chem. 270: 29752-29759.
4. Li, S.M., et al.1999. Detection of circulating uroplakin-positive cells in patients with transitional cell carcinoma of the bladder. J. Urol. 162: 931-935.
5. Shapiro, E., et al. 2000. Uroplakin and androgen receptor expression in the human fetal genital tract: insights into the development of the vagina. J. Urol. 164: 1048-1051.
6. Hu, P., et al. 2000. Ablation of uroplakin III gene results in small urothelial plaques, urothelial leakage, and vesicoureteral reflux. J. Cell Biol. 151: 961-972.
7. Liang, F.X., et al. 2001. Organization of uroplakin subunits: transmembrane topology, pair formation and plaque composition. Biochem. J. 355: 13-18.

CHROMOSOMAL LOCATION

Genetic locus: 2310043J07Rik (mouse) mapping to 5 G2.

SOURCE

2310043J07Rik (I-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of 2310043J07Rik of mouse origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-249266 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

2310043J07Rik (I-16) is recommended for detection of 2310043J07Rik of mouse origin and the corresponding rat homolog by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for 2310043J07Rik siRNA (m): sc-108699, 2310043J07Rik shRNA Plasmid (m): sc-108699-SH and 2310043J07Rik shRNA (m) Lentiviral Particles: sc-108699-V.

Molecular Weight of 2310043J07Rik: 27 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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