SANTA CRUZ BIOTECHNOLOGY, INC.

UT-A (C-15): sc-85200

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Water balance is tightly regulated in the kidneys. Through urinary concentration mechanisms, the kidney prevents the unnecessary excrement of water, thereby protecting the body from dehydration. UT-A (Urea transporter, kidney), also known as SLC14A2 and HUT2, is a 920 amino acid multi-pass membrane protein that functions as a specialized low-affinity vasopressin-regulated urea-transporter. Expressed in the inner medulla of the kidney and localized to the apical membrane, UT-A mediates rapid transepithelial urea transport across the inner medullary collecting duct. There are two isoforms of UT-A that are produced as a result of alternative splicing events. Isoform 1 interacts with Snapin, a SNARE-associated protein, which is thought to help in its recruitment to the plasma membrane. Interestingly, isoform 1 expression is induced by low protein in the diet, whereas isoform 2 expression is induced by dehydration.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SLC14A2 (human) mapping to 18q12.3.

RESEARCH USE

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

SOURCE

UT-A (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of UT-A of human origin.

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-85200 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

UT-A (C-15) is recommended for detection of UT-A of human origin 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).

UT-A (C-15) is also recommended for detection of UT-A in additional species, including canine and porcine.

Suitable for use as control antibody for UT-A siRNA (h): sc-76876, UT-A shRNA Plasmid (h): sc-76876-SH and UT-A shRNA (h) Lentiviral Particles: sc-76876-V.

Molecular Weight of UT-A: 100 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.

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 or our catalog for detailed protocols and support products.