

cadherin-16 (H-10): sc-393132

BACKGROUND

The cadherins are a family of Ca^{2+} -dependent adhesion molecules that function to mediate cell-cell binding critical to the maintenance of structure and morphogenesis. Cadherins each contain a large extracellular domain at the N-terminus, which is characterized by a series of five homologous repeats, the most distal of which is thought to be responsible for binding specificity. Cadherin-16, also known as Ksp-cadherin, is a type I membrane protein which is kidney-specific. Cadherin-16 is expressed exclusively in the basolateral membrane of renal tubular epithelial cells. The human Ksp-cadherin gene (cadherin-16) maps to chromosome 16q22. The mouse Ksp-cadherin gene was localized to a highly syntenic region of distal chromosome 8.

REFERENCES

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4. Jiang, J., et al. 2004. Disruption of cadherin/catenin expression, localization, and interactions during HgCl₂-induced nephrotoxicity. *Toxicol Sci.* 80: 170-182.
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6. Shen, S.S., et al. 2005. Kidney-specific cadherin, a specific marker for the distal portion of the nephron and related renal neoplasms. *Mod Pathol.* 18: 933-40.
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CHROMOSOMAL LOCATION

Genetic locus: CDH16 (human) mapping to 16q22.1.

SOURCE

cadherin-16 (H-10) is a mouse monoclonal antibody raised against amino acids 121-413 mapping within an internal region of cadherin-16 of human origin.

PRODUCT

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

RESEARCH USE

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

APPLICATIONS

cadherin-16 (H-10) is recommended for detection of cadherin-16 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 cadherin-16 siRNA (h): sc-45610, cadherin-16 shRNA Plasmid (h): sc-45610-SH and cadherin-16 shRNA (h) Lentiviral Particles: sc-45610-V.

Molecular Weight (predicted) of cadherin-16: 90 kDa.

Molecular Weight (observed) of cadherin-16: 84-131 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (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.