

cadherin-23 (A-5): sc-166067

BACKGROUND

Cadherin-23 represents the first in this family of calcium binding proteins of which mutations in the extracellular calcium binding domain contribute to an inherited disorder, Usher syndrome type 1D (USH1D). Patients with USH1D exhibit congenital sensorineural hearing loss, vestibular dysfunction and visual impairment due to early onset of retinitis pigmentosa (RP). In the inner ear, cadherin-23 interacts with Myosin VIIa and Harmonin to form a functional network during hair cell differentiation and in the retina to assemble a supra-molecular complex contributing to the organization of the cytoskeletal matrices of the pre- and post-synaptic region. A number of cadherin-23 splice variants exist in association with various phenotypic expression, indicating that differential mutations result in variable presentation of the disease.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CDH23 (human) mapping to 10q22.1; Cdh23 (mouse) mapping to 10 B4.

SOURCE

cadherin-23 (A-5) is a mouse monoclonal antibody raised against amino acids 151-450 mapping within an extracellular domain of cadherin-23 of human origin.

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.

APPLICATIONS

cadherin-23 (A-5) is recommended for detection of cadherin-23 of mouse, rat and 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-23 siRNA (h): sc-43009, cadherin-23 siRNA (m): sc-43010, cadherin-23 shRNA Plasmid (h): sc-43009-SH, cadherin-23 shRNA Plasmid (m): sc-43010-SH, cadherin-23 shRNA (h) Lentiviral Particles: sc-43009-V and cadherin-23 shRNA (m) Lentiviral Particles: sc-43010-V.

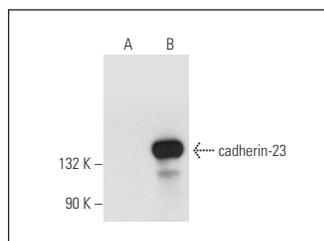
Molecular Weight of cadherin-23: 370 kDa.

Positive Controls: cadherin-23 (h2): 293T Lysate: sc-115145.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 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.

DATA



cadherin-23 (A-5): sc-166067. Western blot analysis of cadherin-23 expression in non-transfected: sc-117752 (A) and human cadherin-23 transfected: sc-115145 (B) 293T whole cell lysates.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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