

# Centrin-1 (N-15): sc-49623

## BACKGROUND

EF-hand type Ca<sup>2+</sup>-binding proteins consists of several family members, including Centrin-1, Centrin-2 and Centrin-3. The Centrin proteins are ubiquitously expressed cytoskeletal components that show increased expression during cell differentiation. Tissues where cilia are present, such as the retina and testis, express both Centrin-1 and -2, but Centrin-2 is also expressed in nondifferentiated, nonciliated retinal cells (retinoblastoma cells), liver, skeletal muscle and cardiac muscle. In these tissues, Centrin associates with the centrosomes, mitotic spindle poles and basal bodies. Knockdown studies reveal a requirement for Centrin in centriole duplication and organization of spindle pole morphology and the completion of cytokinesis. Centrin-3 plays a role in centrosome reproduction.

## REFERENCES

1. LeDizet, M., et al. 1998. Differential regulation of Centrin genes during ciliogenesis in human tracheal epithelial cells. *Am. J. Physiol.* 275: 1145-1156.
2. Wolfrum, U., et al. 1998. Expression of Centrin isoforms in the mammalian retina. *Exp. Cell Res.* 242: 10-17.

## CHROMOSOMAL LOCATION

Genetic locus: CETN1 (human) mapping to 18p11.32.

## SOURCE

Centrin-1 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Centrin-1 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-49623 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

Centrin-1 (N-15) is recommended for detection of Centrin-1 of human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (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 Centrin-1 siRNA (h): sc-60359, Centrin-1 shRNA Plasmid (h): sc-60359-SH and Centrin-1 shRNA (h) Lentiviral Particles: sc-60359-V.

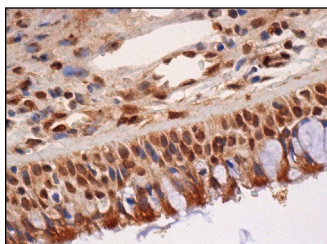
Molecular Weight of Centrin-1: 20 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



Centrin-1 (N-15): sc-49623. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing cytoplasmic and nuclear staining of respiratory epithelial cells.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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