

# Centrin-2 (N-17)-R: sc-27793-R

## BACKGROUND

Centrin-2, an EF-hand protein, plays a critical role in normal cell division. Tissues where cilia are present, such as the retina and testis, express both Centrin-1 and -2, but Centrin-2 is also expressed in non-differentiated, non-ciliated 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. Additionally, Centrin-2 plays a role in nucleotide excision repair via association with xeroderma pigmentosum group C protein, suggesting possible coupling of cell division and nucleotide excision repair.

## CHROMOSOMAL LOCATION

Genetic locus: CETN2 (human) mapping to Xq28; Cetrn2 (mouse) mapping to X A7.3.

## SOURCE

Centrin-2 (N-17)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping of Centrin-2 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-27793 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Centrin-2 (N-17)-R is recommended for detection of Centrin-2 of mouse, rat and 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).

Centrin-2 (N-17)-R is also recommended for detection of Centrin-2 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Centrin-2 siRNA (h): sc-43681, Centrin-2 siRNA (m): sc-72106, Centrin-2 shRNA Plasmid (h): sc-43681-SH, Centrin-2 shRNA Plasmid (m): sc-72106-SH, Centrin-2 shRNA (h) Lentiviral Particles: sc-43681-V and Centrin-2 shRNA (m) Lentiviral Particles: sc-72106-V.

Molecular Weight of Centrin-2: 20 kDa.

Positive Controls: human retinal cells, rat testis extract: sc-2400 or HeLa whole cell lysate: sc-2200.

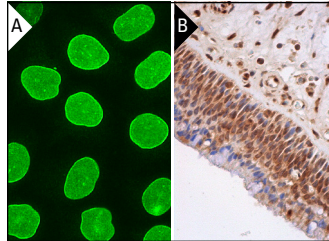
## STORAGE

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.

## DATA



Centrin-2 (N-17)-R: sc-27793-R. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing nuclear and cytoplasmic staining of respiratory epithelial cells (B).

## SELECT PRODUCT CITATIONS

- Hong, K.U., et al. 2007. Functional importance of the anaphase-promoting complex-Cdh1-mediated degradation of TMAP/CKAP2 in regulation of spindle function and cytokinesis. *Mol. Cell. Biol.* 27: 3667-3681.
- Nakanishi, A., et al. 2007. Interference with BRCA2, which localizes to the centrosome during S and early M phase, leads to abnormal nuclear division. *Biochem. Biophys. Res. Commun.* 355: 34-40.
- Ibi, M., et al. 2011. Trichoplein controls microtubule anchoring at the centrosome by binding to Odf2 and ninein. *J. Cell. Sci.* 124: 857-864.
- Wang, H.F., et al. 2011. BRCA2 and nucleophosmin coregulate centrosome amplification and form a complex with the Rho effector kinase ROCK2. *Cancer Res.* 71: 68-77.
- Marcet, B., et al. 2011. Control of vertebrate multiciliogenesis by miR-449 through direct repression of the Delta/Notch pathway. *Nat. Cell Biol.* 13: 693-699.
- Davoli, T. and de Lange, T. 2012. Telomere-driven tetraploidization occurs in human cells undergoing crisis and promotes transformation of mouse cells. *Cancer Cell.* 21: 765-76.
- Blakemore, LM., et al. 2013. Curcumin-induced mitotic arrest is characterized by spindle abnormalities, defects in chromosomal congression and DNA damage. *Carcinogenesis* 34: 351-360.
- Brown, N.J., et al. 2013. Cep63 and cep152 cooperate to ensure centriole duplication. *PLoS ONE* 8: e69986.


 MONOS  
 Satisfation  
 Guaranteed

Try **Centrin-2 (3F8): sc-293192**, our highly recommended monoclonal alternative to Centrin-2 (N-17).