

Centriolin (C-9): sc-365521

BACKGROUND

Cytokinesis occurs during the late stages of mitosis and describes the process by which the cytoplasm of one cell is divided to create two subsequent daughter cells. Centriolin, also known as CEP110, is a coiled-coil centrosomal protein that is required for centrosome maturation and correct centrosome function. During abscission, the last step in cytokinesis, Centriolin both coordinates and grounds vesicle-fusion and vesicle-exocyst complexes to the midbody of the daughter cells. Acting as an anchor for the protein complexes needed to complete separation of the two cells, Centriolin initiates and controls vesicle-mediated cell cleavage. Through its ability to signal initiation of the last step of vertebrate cytokinesis, Centriolin regulates cell proliferation and contributes to proper entry into the S phase of mitosis.

CHROMOSOMAL LOCATION

Genetic locus: CNTRL (human) mapping to 9q33.2.

SOURCE

Centriolin (C-9) is a mouse monoclonal antibody raised against amino acids 2026-2325 mapping at the C-terminus of Centriolin 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.

Centriolin (C-9) is available conjugated to agarose (sc-365521 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365521 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365521 PE), fluorescein (sc-365521 FITC), Alexa Fluor® 488 (sc-365521 AF488), Alexa Fluor® 546 (sc-365521 AF546), Alexa Fluor® 594 (sc-365521 AF594) or Alexa Fluor® 647 (sc-365521 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365521 AF680) or Alexa Fluor® 790 (sc-365521 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Centriolin (C-9) is recommended for detection of Centriolin 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 Centriolin siRNA (h): sc-62094, Centriolin shRNA Plasmid (h): sc-62094-SH and Centriolin shRNA (h) Lentiviral Particles: sc-62094-V.

Molecular Weight of Centriolin: 110 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, SK-BR-3 cell lysate: sc-2218 or U-937 cell lysate: sc-2239.

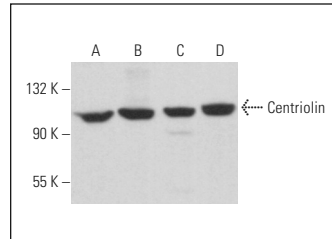
STORAGE

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

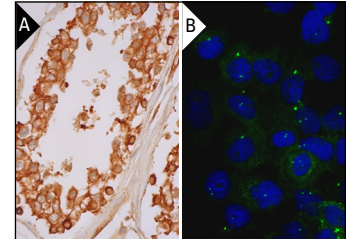
RESEARCH USE

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

DATA



Centriolin (C-9): sc-365521. Western blot analysis of Centriolin expression in NIH/3T3 (A), THP-1 (B), U-937 (C) and SK-BR-3 (D) whole cell lysates.



Centriolin (C-9): sc-365521. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic and membrane staining of cells in seminiferous ducts (A). Immunofluorescence staining of formalin-fixed A-431 cells showing centrosome localization (B).

SELECT PRODUCT CITATIONS

- Bailey, J.K., et al. 2015. WD repeat-containing protein 5 (WDR5) localizes to the midbody and regulates abscission. *J. Biol. Chem.* 290: 8987-9001.
- Mazo, G., et al. 2016. Spatial control of primary ciliogenesis by subdistal appendages alters sensation-associated properties of cilia. *Dev. Cell* 39: 424-437.
- Wang, L., et al. 2018. A distal centriolar protein network controls organelle maturation and asymmetry. *Nat. Commun.* 9: 3938.
- Bustamante-Marin, X.M., et al. 2019. Lack of GAS2L2 causes PCD by impairing cilia orientation and mucociliary clearance. *Am. J. Hum. Genet.* 104: 229-245.
- Findakly, S., et al. 2020. Meningioma cells express primary cilia but do not transduce ciliary hedgehog signals. *Acta Neuropathol. Commun.* 8: 114.
- Ryu, H., et al. 2021. The molecular dynamics of subdistal appendages in multi-ciliated cells. *Nat. Commun.* 12: 612.
- Borghi, R., et al. 2021. Dissecting the role of PCDH19 in clustering epilepsy by exploiting patient-specific models of neurogenesis. *J. Clin. Med.* 10: 2754.
- Findakly, S., et al. 2021. Sterol and oxysterol synthases near the ciliary base activate the hedgehog pathway. *J. Cell Biol.* 220: e202002026.
- Mateos-Quiros, C.M., et al. 2021. Junctional adhesion molecule 3 expression in the mouse airway epithelium is linked to multiciliated cells. *Front. Cell Dev. Biol.* 9: 622515.
- Zhang, X., et al. 2022. CEP128 is involved in spermatogenesis in humans and mice. *Nat. Commun.* 13: 1395.

PROTOCOLS

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

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