

Centrin-3 (E-6): sc-365697

BACKGROUND

The EF-hand type Ca^{2+} -binding proteins family consists of several 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.

CHROMOSOMAL LOCATION

Genetic locus: CETN3 (human) mapping to 5q14.3; Ctn3 (mouse) mapping to 13 C3.

SOURCE

Centrin-3 (E-6) is a mouse monoclonal antibody raised against amino acids 56-102 mapping within an internal region of Centrin-3 of human origin.

PRODUCT

Each vial contains 200 μg IgG κ light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Centrin-3 (E-6) is available conjugated to agarose (sc-365697 AC), 500 μg /0.25 ml agarose in 1 ml, for IP; to HRP (sc-365697 HRP), 200 μg /ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365697 PE), fluorescein (sc-365697 FITC), Alexa Fluor® 488 (sc-365697 AF488), Alexa Fluor® 546 (sc-365697 AF546), Alexa Fluor® 594 (sc-365697 AF594) or Alexa Fluor® 647 (sc-365697 AF647), 200 μg /ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365697 AF680) or Alexa Fluor® 790 (sc-365697 AF790), 200 μg /ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Centrin-3 (E-6) is recommended for detection of Centrin-3 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 Centrin-3 siRNA (h): sc-60361, Centrin-3 siRNA (m): sc-60362, Centrin-3 shRNA Plasmid (h): sc-60361-SH, Centrin-3 shRNA Plasmid (m): sc-60362-SH, Centrin-3 shRNA (h) Lentiviral Particles: sc-60361-V and Centrin-3 shRNA (m) Lentiviral Particles: sc-60362-V.

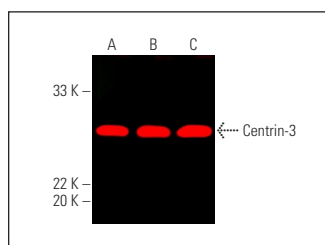
Molecular Weight of Centrin-3: 20 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233, CCRF-CEM cell lysate: sc-2225 or F9 cell lysate: sc-2245.

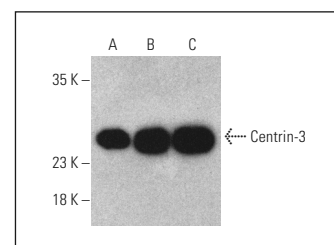
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



Centrin-3 (E-6): sc-365697. Near-Infrared western blot analysis of Centrin-3 expression in MOLT-4 (A), F9 (B) and CCRF-CEM (C) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG κ BP-CFL 790: sc-516181.



Centrin-3 (E-6) HRP: sc-365697 HRP. Direct western blot analysis of Centrin-3 expression in Jurkat (A), MOLT-4 (B) and CCRF-CEM (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Malik, S., et al. 2016. BRCA2 mediates centrosome cohesion via an interaction with cytoplasmic Dynein. *Cell Cycle* 15: 2145-2156.
2. Kashiwara, H., et al. 2019. Cep128 associates with Odf2 to form the subdistal appendage of the centriole. *Genes Cells* 24: 231-243.
3. Bilinski, M., et al. 2020. Centrosome abnormalities and polyploidy in murine mammary carcinomas with different degrees of hormone responsiveness. *Cancer Invest.* 38: 300-309.

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.