SANTA CRUZ BIOTECHNOLOGY, INC.

CEP55 (C-4): sc-377018

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CEP55 (centrosomal protein of 55 kDa), also known as URCC6 (up-regulated in colon cancer 6), is a 464 amino acid protein that localizes to the centrosome during interphase and may be found throughout the cell during mitosis. Widely expressed with highest expression in testis and lower expression in thymus, bone marrow, placenta, fetal heart, digestive tract and several carcinomas, CEP55 exists as a homodimer that interacts with centrosome components and is involved in mitotic exit and cytokinesis. Human CEP55 undergoes several phosphorylation events throughout the cell cycle, most of which are necessary for proper CEP55 function. Mutations or defects in the gene encoding CEP55 result in a failure to exit mitosis and may be associated with tumor progression. Two isoforms of CEP55 are expressed due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: Cep55 (mouse) mapping to 19 C2.

SOURCE

CEP55 (C-4) is a mouse monoclonal antibody raised against amino acids 163-462 mapping at the C-terminus of CEP55 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CEP55 (C-4) is available conjugated to agarose (sc-377018 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377018 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377018 PE), fluorescein (sc-377018 FITC), Alexa Fluor® 488 (sc-377018 AF488), Alexa Fluor® 546 (sc-377018 AF546), Alexa Fluor® 594 (sc-377018 AF594) or Alexa Fluor® 647 (sc-377018 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377018 AF680) or Alexa Fluor® 790 (sc-377018 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

CEP55 (C-4) is recommended for detection of CEP55 of mouse and rat 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), 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 CEP55 siRNA (m): sc-142284, CEP55 shRNA Plasmid (m): sc-142284-SH and CEP55 shRNA (m) Lentiviral Particles: sc-142284-V.

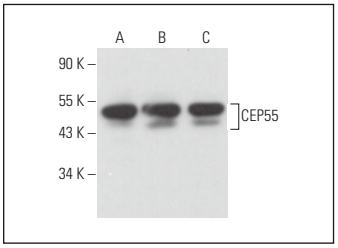
Molecular Weight of CEP55: 55 kDa.

Positive Controls: M1 whole cell lysate: sc-364782, F9 cell lysate: sc-2245 or c4 whole cell lysate: sc-364186.

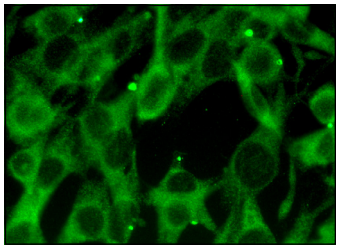
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



CEP55 (C-4): sc-377018. Western blot analysis of CEP55 expression in c4 (**A**), F9 (**B**) and M1 (**C**) whole cell lysates.



CEP55 (C-4): sc-377018. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Takahashi, Y., et al. 2018. An autophagy assay reveals the ESCRT-III component CHMP2A as a regulator of phagophore closure. Nat. Commun. 9: 2855.
2. McNeely, K.C. and Dwyer, N.D. 2020. Cytokinesis and postabscission midbody remnants are regulated during mammalian brain development. Proc. Natl. Acad. Sci. USA 117: 9584-9593.
3. Little, J.N., et al. 2021. Loss of coiled-coil protein Cep55 impairs neural stem cell abscission and results in p53-dependent apoptosis in developing cortex. J. Neurosci. 41: 3344-3365.

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.