SANTA CRUZ BIOTECHNOLOGY, INC.

CEP55 (B-8): sc-374051

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 (human) mapping to 10q23.33.

SOURCE

CEP55 (B-8) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of CEP55 of human origin.

PRODUCT

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

CEP55 (B-8) is available conjugated to agarose (sc-374051 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374051 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374051 PE), fluorescein (sc-374051 FITC), Alexa Fluor® 488 (sc-374051 AF488), Alexa Fluor® 546 (sc-374051 AF546), Alexa Fluor® 594 (sc-374051 AF594) or Alexa Fluor® 647 (sc-374051 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374051 AF680) or Alexa Fluor® 790 (sc-374051 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

CEP55 (B-8) is recommended for detection of CEP55 of 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 CEP55 siRNA (h): sc-90601, CEP55 shRNA Plasmid (h): sc-90601-SH and CEP55 shRNA (h) Lentiviral Particles: sc-90601-V.

Molecular Weight of CEP55: 55 kDa.

Positive Controls: ES-2 cell lysate: sc-24674, HeLa whole cell lysate: sc-2200 or Caki-1 cell lysate: sc-2224.

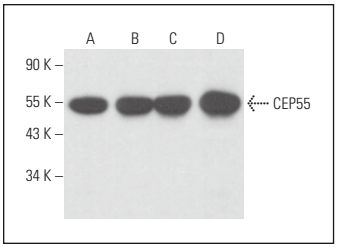
STORAGE

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

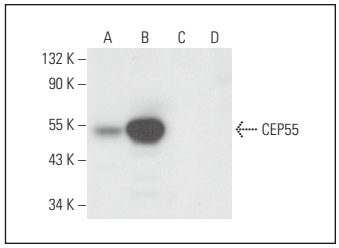
RESEARCH USE

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

DATA



CEP55 (B-8): sc-374051. Western blot analysis of CEP55 expression in HeLa (**A**), JAR (**B**), ECV304 (**C**) and A-431 (**D**) whole cell lysates.



CEP55 (B-8): sc-374051. Western blot analysis of CEP55 expression in Caki-1 (**A**), ES-2 (**B**), AMJ2-C8 (**C**) and AMJ2-C11 (**D**) whole cell lysates. Note lack of reactivity with mouse CEP55 in lanes **C** and **D**.

SELECT PRODUCT CITATIONS

1. Dandoulaki, M., et al. 2018. Src activation by Chk1 promotes Actin patch formation and prevents chromatin bridge breakage in cytokinesis. J. Cell Biol. 217: 3071-3089.
2. Molinie, N., et al. 2019. Cortical branched Actin determines cell cycle progression. Cell Res. 29: 432-445.
3. Paccosi, E., et al. 2020. The Cockayne syndrome group A and B proteins are part of a ubiquitin-proteasome degradation complex regulating cell division. Proc. Natl. Acad. Sci. USA 117: 30498-30508.
4. Bischoff, M.E., et al. 2021. Selective MAP1LC3C (LC3C) autophagy requires noncanonical regulators and the C-terminal peptide. J. Cell Biol. 220: e202004182.
5. Shao, R., et al. 2021. The balance between AIM2-associated inflammation and autophagy: the role of CHMP2A in brain injury after cardiac arrest. J. Neuroinflammation 18: 257.
6. Boullé, M., et al. 2022. High-content RNAi phenotypic screening unveils the involvement of human ubiquitin-related enzymes in late cytokinesis. Cells 11: 3862.
7. Jiang, H., et al. 2023. Human endonuclease ANKLE1 localizes at the midbody and processes chromatin bridges to prevent DNA damage and cGAS-STING activation. Adv. Sci. 10: e2204388.
8. Xiao, L., et al. 2023. Amorphous silica nanoparticles cause abnormal cytokinesis and multinucleation through dysfunction of the centralspindlin complex and microfilaments. Part. Fibre Toxicol. 20: 34.

PROTOCOLS

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