

CEP152 (S-14): sc-164041

BACKGROUND

CEP152, also known as centrosomal protein of 152 kDa, MCPH4 or SCKL5, is a 1,654 amino acid protein that is required for centrosome duplication. CEP152 is responsible for regulating genomic integrity as well as initiating ATR-mediated checkpoint signaling in response to DNA damage. CEP152 interacts with Sak and CENPJ, which are important for centriole formation as well as the cyclin-dependent kinase 2-interacting protein (CINP). Defects in CEP152 leads to Seckel syndrome type 5 (SCKL5) and microcephaly primary type 4 (MCPH4), both of which are congenital diseases and cause mental retardation. CEP152 exists as three different alternatively spliced isoforms and is post-translationally phosphorylated at amino acid residue 1258 (tyrosine) and 1405 (serine). The gene encoding CEP152 maps to human chromosome 15.

REFERENCES

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2. Andersen, J.S., et al. 2003. Proteomic characterization of the human centrosome by protein correlation profiling. Nature 426: 570-574.
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4. Heibeck, T.H., et al. 2009. An extensive survey of tyrosine phosphorylation revealing new sites in human mammary epithelial cells. J. Proteome Res. 8: 3852-3861.
5. Hatch, E.M., et al. 2010. Cep152 interacts with Plk4 and is required for centriole duplication. J. Cell Biol. 191: 721-729.
6. Cizmecioglu, O., et al. 2010. Cep152 acts as a scaffold for recruitment of Plk4 and CPAP to the centrosome. J. Cell Biol. 191: 731-739.
7. Dzhindzhev, N.S., et al. 2010. Asterless is a scaffold for the onset of centriole assembly. Nature 467: 714-718.
8. Kalay, E., et al. 2011. CEP152 is a genome maintenance protein disrupted in Seckel syndrome. Nat. Genet. 43: 23-26.

CHROMOSOMAL LOCATION

Genetic locus: CEP152 (human) mapping to 15q21.1; Cep152 (mouse) mapping to 2 F1.

SOURCE

CEP152 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CEP152 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-164041 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CEP152 (S-14) is recommended for detection of CEP152 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other CEP family members.

Suitable for use as control antibody for CEP152 siRNA (h): sc-90225, CEP152 siRNA (m): sc-142278, CEP152 shRNA Plasmid (h): sc-90225-SH, CEP152 shRNA Plasmid (m): sc-142278-SH, CEP152 shRNA (h) Lentiviral Particles: sc-90225-V and CEP152 shRNA (m) Lentiviral Particles: sc-142278-V.

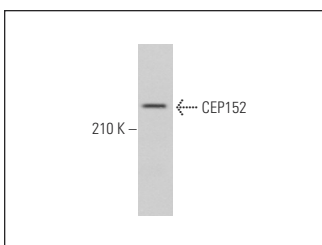
Molecular Weight of CEP152 isoforms: 189/158/147 kDa.

Positive Controls: mouse brain extract: sc-2253.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CEP152 (S-14): sc-164041. Western blot analysis of CEP152 expression in mouse brain tissue extract.

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 or our catalog for detailed protocols and support products.