SANTA CRUZ BIOTECHNOLOGY, INC.

Pericentrin 2 siRNA (h): sc-45456

BACKGROUND

Pericentrin 2, also known as Pericentrin B or kendrin, is an integral component of the pericentriolar material. The protein localizes specifically to centrosomes throughout all stages of the cell cycle. It remains centrosomal following microtubule depolymerization. Pericentrin 2 binds calmodulin and is widely expressed in most tissues, including kidney, placenta, liver and thymus.

REFERENCES

1. Flory, M.R., Moser, M.J., Monnat, R.J., Jr. and Davis, T.N. 2000. Identification of a human centrosomal calmodulin-binding protein that shares homology with pericentrin. Proc. Natl. Acad. Sci. USA 11: 5919-5923.
2. Fritzler, M.J., Zhang, M., Stinton, L.M. and Rattner, J.B. 2003. Spectrum of centrosome autoantibodies in childhood varicella and post-varicella acute cerebellar ataxia. BMC Pediatr. 3: 11.
3. Miyoshi, K., Asanuma, M., Miyazaki, I., Diaz-Corrales, F.J., Katayama, T., Tohyama, M. and Ogawa, N. 2004. DISC1 localizes to the centrosome by binding to kendrin. Biochem. Biophys. Res. Commun. 317: 1195-1199.
4. Zimmerman, W.C., Sillibourne, J., Rosa, J. and Doxsey, S.J. 2004. Mitosis-specific anchoring of γ Tubulin complexes by pericentrin controls spindle organization and mitotic entry. Mol. Biol. Cell 15: 3642-3657.
5. Giehl, M., Fabarius, A., Frank, O., Hochhaus, A., Hafner, M., Hehlmann, R. and Seifarth, W. 2005. Centrosome aberrations in chronic myeloid leukemia correlate with stage of disease and chromosomal instability. Leukemia 19: 1192-1197.
6. Golubkov, V.S., Chekanov, A.V., Doxsey, S.J. and Strongin, A.Y. 2005. Centrosomal Pericentrin is a direct cleavage target of membrane type-1 matrix metalloproteinase in humans but not in mice: potential implications for tumorigenesis. J. Biol. Chem. 280: 42237-44241.
7. SWISS-PROT/TrEMBL (O95613). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html.

CHROMOSOMAL LOCATION

Genetic locus: PCNT (human) mapping to 21q22.3.

PRODUCT

Pericentrin 2 siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Pericentrin 2 shRNA Plasmid (h): sc-45456-SH and Pericentrin 2 shRNA (h) Lentiviral Particles: sc-45456-V as alternate gene silencing products.

For independent verification of Pericentrin 2 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-45456A, sc-45456B and sc-45456C.

PROTOCOLS

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

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Pericentrin 2 siRNA (h) is recommended for the inhibition of Pericentrin 2 expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Pericentrin 2 gene expression knockdown using RT-PCR Primer: Pericentrin 2 (h)-PR: sc-45456-PR (20 µl, 482 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Vásquez-Limeta, A., Lukasik, K., Kong, D., Sullenberger, C., Luvsanjav, D., Sahabandu, N., Chari, R. and Loncarek, J. 2022. CPAP insufficiency leads to incomplete centrioles that duplicate but fragment. J. Cell Biol. 221: e202108018.

RESEARCH USE

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