SANTA CRUZ BIOTECHNOLOGY, INC.

PICH siRNA (h): sc-90897

BACKGROUND

PICH (Plk1-interacting checkpoint helicase), also known as DNA excision repair protein ERCC-6-like (ERCC6L) or tumor antigen BJ-HCC-15, is a 1,250 amino acid protein belonging to the SNF2/Rad54 helicase family. PICH is a DNA helicase and an essential component of the spindle assembly checkpoint. During mitosis, PICH recruits MAD2 to kinetochores and also regulates the tension on centromic chromatin. PICH is concentrated in between the kinetochores in prometophase cells, while in metaphase it localizes to the thin threads composed of catenated centromeric DNA that stretch between sister kinetochores. PICH is phosphorylated by Plk, which prevents PICH from associating with chromosome arms and restricts the localization of PICH to the kinetochore-centromere region. PICH/Plk interaction is also required for correct Plk localization to the kinetochore. PICH contains one helicase ATP-binding domain, two TPR repeats and one helicase C-terminal domain.

REFERENCES

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5. Spence, J.M., Phua, H.H., Mills, W., Carpenter, A.J., Porter, A.C. and Farr, C.J. 2007. Depletion of topoisomerase IIα leads to shortening of the metaphase interkinetochore distance and abnormal persistence of PICH-coated anaphase threads. J. Cell Sci. 120: 3952-3964.
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CHROMOSOMAL LOCATION

Genetic locus: ERCC6L (human) mapping to Xq13.1.

PROTOCOLS

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

PRODUCT

PICH 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 PICH shRNA Plasmid (h): sc-90897-SH and PICH shRNA (h) Lentiviral Particles: sc-90897-V as alternate gene silencing products.

For independent verification of PICH (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-90897A, sc-90897B and sc-90897C.

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

PICH siRNA (h) is recommended for the inhibition of PICH 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 PICH gene expression knockdown using RT-PCR Primer: PICH (h)-PR: sc-90897-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

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