SANTA CRUZ BIOTECHNOLOGY, INC.

Cactin siRNA (h): sc-97608

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The Power to Question

BACKGROUND

Cactin, also known as fSAPc, NY-REN-24 or C19orf29, is a 758 amino acid nuclear protein that colocalizes with NFKBIL1 (NFκB inhibitor-like protein 1). Involved in the regulation of innate immune responses, Cactin may play a role in early embryonic development and pre-mRNA splicing. Cactin acts as a negative regulator of Toll-like receptor and IRF (interferon-regulatory factor) signaling pathways. In response to endogenous pro-inflammatory stimuli, Cactin regulates the transcriptional activation of NFκB genes. The gene encoding Cactin, which maps to human chromosome 19p13.3 and mouse chromosome 10 C1, may be associated with renal-cell carcinoma patients. Cactin exists as two alternatively spliced isoforms.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CACTIN (human) mapping to 19p13.3.

PRODUCT

Cactin siRNA (h) is a pool of 2 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 Cactin shRNA Plasmid (h): sc-97608-SH and Cactin shRNA (h) Lentiviral Particles: sc-97608-V as alternate gene silencing products.

For independent verification of Cactin (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-97608A and sc-97608B.

RESEARCH USE

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

TORAGE 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

Cactin siRNA (h) is recommended for the inhibition of Cactin 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.

GENE EXPRESSION MONITORING

Cactin (D-10): sc-515391 is recommended as a control antibody for monitoring of Cactin gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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) 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Cactin gene expression knockdown using RT-PCR Primer: Cactin (h)-PR: sc-97608-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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