

CITED4 siRNA (h): sc-60387

BACKGROUND

CITED4 (Cbp/p300-interacting transactivator, with Glu/Asp-rich carboxy-terminal domain, 4), also designated transcriptional coactivator 4, interacts via its C-terminus with the cysteine-histidine-rich domain 1 (CH1) of EP300 (p300) and CREB-binding protein (CBP). CITED4 may inhibit interaction of hypoxia-inducible factor 1 α (HIF-1 α) with CBP, thus inhibiting transactivation by HIF1A. CITED4 also interacts as a transcriptional coactivator with all isoforms of TFAP2. Nuclear loss or cytoplasmic translocation of CITED4, followed by a loss of HIF-1 α transcriptional antagonist activity, indicates breast cancer development. CITED4 expression occurs in a variety of tissues including heart, liver, skeletal muscle, pancreas and various breast cancer cell lines. CITED4 is highly expressed in embryonic endothelial cells mammary epithelial cells of pregnant and lactating females, respectively. Regulation of CITED4 may occur through the cell cycle.

REFERENCES

1. Braganca, J., et al. 2002. Human CREB-binding protein/p300-interacting transactivator with CITED4, a new member of the CITED family, functions as a co-activator for transcription factor AP-2. *J. Biol. Chem.* 277: 8559-8565.
2. Yahata, T., et al. 2002. Cloning of mouse CITED4, a member of the CITED family p300/CBP-binding transcriptional coactivators: induced expression in mammary epithelial cells. *Genomics* 80: 601-613.
3. Fox, S.B., et al. 2004. CITED4 inhibits hypoxia-activated transcription in cancer cells, and its cytoplasmic location in breast cancer is associated with elevated expression of tumor cell hypoxia-inducible factor 1 α . *Cancer Res.* 64: 6075-6081.

CHROMOSOMAL LOCATION

Genetic locus: CITED4 (human) mapping to 1p34.2.

PRODUCT

CITED4 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CITED4 shRNA Plasmid (h): sc-60387-SH and CITED4 shRNA (h) Lentiviral Particles: sc-60387-V as alternate gene silencing products.

For independent verification of CITED4 (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-60387A, sc-60387B and sc-60387C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCL, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

CITED4 siRNA (h) is recommended for the inhibition of CITED4 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 μ M in 66 μ l. 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 CITED4 gene expression knockdown using RT-PCR Primer: CITED4 (h)-PR: sc-60387-PR (20 μ l). 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.

PROTOCOLS

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