SANTA CRUZ BIOTECHNOLOGY, INC.

WSTF siRNA (h): sc-38619

BACKGROUND

WSTF (Williams syndrome transcription factor), also known as WBSCR9, is encoded by the BAZ1B gene, which, through deletion, is considered a contributory factor for the human developmental disorder Williams syndrome. WSTF is ubiqitiously expressed in adult and fetal tissues and is involved in chromatin remodeling and modulation of transcription. A closely related gene, BAZ1A, encodes WCRF, also a chromatin remodeling protein important for development. WSTF incorporates several features that operate in chromatin remodeling and modulation of transcription, including a PHD finger, which is a zinc-finger-like motif rich in cysteine; a bromodomain, which is thought to mediate interactions with histones; and several nuclear binding motifs.

REFERENCES

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3. Peoples, R.J., Cisco, M.J., Kaplan, P. and Francke, U. 1998. Identification of the WBSCR9 gene, encoding a novel transcriptional regulator, in the Williams-Beuren syndrome deletion at 7q11.23. Cytogenet. Cell Genet. 82: 238-246.
4. Ornaghi, P., Ballario, P., Lena, A.M., Gonzalez, A. and Filetici, P. 1999. The bromodomain of Gen5p interacts *in vitro* with specific residues in the N-terminus of histone H4. J. Mol. Biol. 287: 1-7.
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6. Bochar, D., Savard, J., Wang, W., Lafleur, D., Moore, P., Cote, J. and Shiekhattar, R. 2000. A family of chromatin remodeling factors related to Williams syndrome transcription factor. Prod. Natl. Acad. Sci. USA 97: 1038-1043.

CHROMOSOMAL LOCATION

Genetic locus: BAZ1B (human) mapping to 7q11.23.

PRODUCT

WSTF 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 WSTF shRNA Plasmid (h): sc-38619-SH and WSTF shRNA (h) Lentiviral Particles: sc-38619-V as alternate gene silencing products.

For independent verification of WSTF (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-38619A, sc-38619B and sc-38619C.

RESEARCH USE

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

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

WSTF siRNA (h) is recommended for the inhibition of WSTF 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

WSTF (G-5): sc-514287 is recommended as a control antibody for monitoring of WSTF 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 WSTF gene expression knockdown using RT-PCR Primer: WSTF (h)-PR: sc-38619-PR (20 µl, 515 bp). 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.