

BPTF siRNA (h): sc-93894

BACKGROUND

BPTF (nucleosome-remodeling factor subunit BPTF, bromodomain and PHD finger-containing transcription factor) is a 2,907 amino acid protein encoded by the human gene BPTF. BPTF belongs to the PBTF family and contains one bromodomain, one DDT domain and two PHD-type zinc fingers. BPTF acts as a histone-binding component of NURF (nucleosome-remodeling factor). The NURF complex, which consists of SMARCA1, BPTF, RbAp46 and RbAp48, acts to catalyze ATP-dependent nucleosome sliding and facilitates transcription of chromatin. It specifically recognizes Histone H3 tails trimethylated on "Lys 4" (H3-K4Me3), which mark transcription start sites of virtually all active genes. BPTF may also help regulate transcription through direct binding to DNA or transcription factors.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: BPTF (human) mapping to 17q24.2.

PRODUCT

BPTF 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 BPTF shRNA Plasmid (h): sc-93894-SH and BPTF shRNA (h) Lentiviral Particles: sc-93894-V as alternate gene silencing products.

For independent verification of BPTF (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-93894A, sc-93894B and sc-93894C.

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

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

GENE EXPRESSION MONITORING

BPTF (2343C3a): sc-81088 is recommended as a control antibody for monitoring of BPTF 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).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor BPTF gene expression knockdown using RT-PCR Primer: BPTF (h)-PR: sc-93894-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.