



# SNFT siRNA (h): sc-88553

## BACKGROUND

SNFT, also known as BATF3 (basic leucine zipper transcription factor, ATF-like 3), JUNDM1 or JDP1, is a 127 amino acid protein that localizes to the nucleus and contains one bZIP domain. Interacting with c-Jun, SNFT functions as a negative regulator of AP-1-mediated transcription, specifically by heterodimerizing with c-Jun and binding to DNA response elements. The gene encoding SNFT maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

## REFERENCES

1. Iacobelli, M., et al. 2000. Repression of IL-2 promoter activity by the novel basic leucine zipper p21<sup>SNFT</sup> protein. *J. Immunol.* 165: 860-868.
2. Bower, K.E., et al. 2002. Correlation of transcriptional repression by p21<sup>SNFT</sup> with changes in DNA.NF-AT complex interactions. *J. Biol. Chem.* 277: 34967-34977.
3. Newman, J.R., et al. 2003. Comprehensive identification of human bZIP interactions with coiled-coil arrays. *Science* 300: 2097-2101.
4. Bower, K.E., et al. 2004. Transcriptional repression of MMP-1 by p21<sup>SNFT</sup> and reduced *in vitro* invasiveness of hepatocarcinoma cells. *Oncogene* 23: 8805-8814.

## CHROMOSOMAL LOCATION

Genetic locus: BATF3 (human) mapping to 1q32.3.

## PRODUCT

SNFT 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SNFT shRNA Plasmid (h): sc-88553-SH and SNFT shRNA (h) Lentiviral Particles: sc-88553-V as alternate gene silencing products.

For independent verification of SNFT (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-88553A and sc-88553B.

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

## APPLICATIONS

SNFT siRNA (h) is recommended for the inhibition of SNFT 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  $\mu$ M in 66  $\mu$ 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

SNFT (D-6): sc-398902 is recommended as a control antibody for monitoring of SNFT 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-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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 SNFT gene expression knockdown using RT-PCR Primer: SNFT (h)-PR: sc-88553-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## SELECT PRODUCT CITATIONS

1. Sharma, M.D., et al. 2018. Activation of p53 in immature myeloid precursor cells controls differentiation into Ly6c<sup>+</sup>CD103<sup>+</sup> monocytic antigen-presenting cells in tumors. *Immunity* 48: 91-106.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.