

# SASH1 siRNA (h): sc-95258

## BACKGROUND

SASH1 (SAM and SH3 domain-containing protein 1), also known as PEPE1 (proline-glutamate repeat-containing protein), is a 1,247 amino acid protein that is significantly downregulated in the majority of primary breast tumor tissues, breast cancer cell lines, lung and thyroid tumors, as well as in certain colon carcinomas. It has been hypothesized that its expression is suppressed not due to mutation of the SASH1 gene, but instead via other mechanisms, such as promoter methylation. As a member of the SH3-domain containing expressed in lymphocytes (SLY1) gene family, SASH1 contains two sterile  $\alpha$  modules (SAMs) and one Src homology-3 (SH3) domain, motifs that are predominantly found in adaptors, scaffold proteins and signaling molecules. Downregulation of SASH1 expression correlates with the formation of distant metastasis and is considered a negative prognostic parameter for patient survival.

## REFERENCES

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2. Zeller, C., et al. 2003. SASH1: a candidate tumor suppressor gene on chromosome 6q24.3 is downregulated in breast cancer. Oncogene 22: 2972-2983.
3. Lindvall, J.M., et al. 2005. Differential expression and molecular characterization of Lmo7, Myo1e, Sash1, and Mcoln2 genes in Btk-defective B cells. Cell. Immunol. 235: 46-55.
4. Rimkus, C., et al. 2006. Prognostic significance of downregulated expression of the candidate tumour suppressor gene SASH1 in colon cancer. Br. J. Cancer 95: 1419-1423.
5. Olsen, J.V., et al. 2006. Global, *in vivo*, and site-specific phosphorylation dynamics in signaling networks. Cell 127: 635-648.
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## CHROMOSOMAL LOCATION

Genetic locus: SASH1 (human) mapping to 6q24.3.

## PRODUCT

SASH1 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SASH1 shRNA Plasmid (h): sc-95258-SH and SASH1 shRNA (h) Lentiviral Particles: sc-95258-V as alternate gene silencing products.

For independent verification of SASH1 (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-95258A, sc-95258B and sc-95258C.

## 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  $\mu$ 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

SASH1 siRNA (h) is recommended for the inhibition of SASH1 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

SASH1 (X1): sc-517001 is recommended as a control antibody for monitoring of SASH1 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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor SASH1 gene expression knockdown using RT-PCR Primer: SASH1 (h)-PR: sc-95258-PR (20  $\mu$ l). 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](http://www.scbt.com) for detailed protocols and support products.