

SDS3 siRNA (m): sc-153291

BACKGROUND

SDS3 (suppressor of defective silencing 3 protein homolog), also known as SUDS3 (sin3 histone deacetylase corepressor complex component SDS3) or SAP45, is a 328 amino acid protein belonging to the SDS3 family. Acting as a component in the histone deacetylase (HDAC) dependent Sin3A co-repressor complex, SDS3 maintains HDAC activity, and may have a role in tumor suppressor pathways. SDS3 is expressed in various cancer cell lines and may help regulate cancer cell viability by interacting with USP17, with important implications towards therapeutic cancer treatments. SDS3 also interacts with mSin3A and mSin3B. The gene encoding SDS3 maps to human chromosome 12q24.23. Encoding over 1,100 genes within 132 million bases, chromosome 12 makes up about 4.5% of the human genome.

REFERENCES

1. Dorland, S., et al. 2000. Roles for the *Saccharomyces cerevisiae* SDS3, CBK1 and HYM1 genes in transcriptional repression by SIN3. *Genetics* 154: 573-586.
2. Alland, L., et al. 2002. Identification of mammalian Sds3 as an integral component of the Sin3/histone deacetylase corepressor complex. *Mol. Cell. Biol.* 22: 2743-2750.
3. Wysocka, J., et al. 2003. Human Sin3 deacetylase and trithorax-related Set1/Ash2 histone H3-K4 methyltransferase are tethered together selectively by the cell-proliferation factor HCF-1. *Genes Dev.* 17: 896-911.
4. Fleischer, T.C., et al. 2003. Identification and characterization of three new components of the mSin3A corepressor complex. *Mol. Cell. Biol.* 23: 3456-3467.
5. Moreira, L.S., et al. 2008. Identification of differentially expressed genes induced by hydroxyurea in reticulocytes from sickle cell anaemia patients. *Clin. Exp. Pharmacol. Physiol.* 35: 651-655.
6. Seda, O., et al. 2008. Systematic, genome-wide, sex-specific linkage of cardiovascular traits in French Canadians. *Hypertension* 51: 1156-1162.

CHROMOSOMAL LOCATION

Genetic locus: *Suds3* (mouse) mapping to 5 F.

PRODUCT

SDS3 siRNA (m) 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 SDS3 shRNA Plasmid (m): sc-153291-SH and SDS3 shRNA (m) Lentiviral Particles: sc-153291-V as alternate gene silencing products.

For independent verification of SDS3 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-153291A, sc-153291B and sc-153291C.

PROTOCOLS

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

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

SDS3 siRNA (m) is recommended for the inhibition of SDS3 expression in mouse 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 SDS3 gene expression knockdown using RT-PCR Primer: SDS3 (m)-PR: sc-153291-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.