



ASCC1 siRNA (h): sc-90650

BACKGROUND

ASCC1 (activating signal cointegrator 1 complex subunit 1), also known as CGI-18 or ASC1p50, is a 400 amino acid cytoplasmic protein that is ubiquitously expressed and contains one KH domain. Existing as two alternatively spliced isoforms, ASC1 is part of the TRIP4 complex, which contains ASC1, ASC2 and ASC3. ASC1 enhances NF κ B, SRF and c-Jun transactivation, and is encoded by a gene located on human chromosome 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

REFERENCES

1. Jung, D.J., et al. 2002. Novel transcription coactivator complex containing activating signal cointegrator 1. *Mol. Cell. Biol.* 22: 5203-5211.
2. Goo, Y.H., et al. 2003. Activating signal cointegrator 2 belongs to a novel steady-state complex that contains a subset of trithorax group proteins. *Mol. Cell. Biol.* 23: 140-149.
3. Hong, S., et al. 2004. Coactivator ASC-2 mediates heat shock factor 1-mediated transactivation dependent on heat shock. *FEBS Lett.* 559: 165-170.
4. Lee, S., et al. 2008. Activating signal cointegrator-2 is an essential adaptor to recruit histone H3 lysine 4 methyltransferases MLL3 and MLL4 to the liver X receptors. *Mol. Endocrinol.* 22: 1312-1319.
5. Almeida-Vega, S., et al. 2009. Gastrin activates paracrine networks leading to induction of PAI-2 via MAZ and ASC-1. *Am. J. Physiol. Gastrointest. Liver Physiol.* 296: G414-G423.
6. Lee, S., et al. 2009. Crucial roles for interactions between MLL3/4 and INI1 in nuclear receptor transactivation. *Mol. Endocrinol.* 23: 610-619.
7. Kim, D.H., et al. 2009. ASCOM controls farnesoid X receptor transactivation through its associated histone H3 lysine 4 methyltransferase activity. *Mol. Endocrinol.* 23: 1556-1562.

CHROMOSOMAL LOCATION

Genetic locus: ASCC1 (human) mapping to 10q22.1.

PRODUCT

ASCC1 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 ASCC1 shRNA Plasmid (h): sc-90650-SH and ASCC1 shRNA (h) Lentiviral Particles: sc-90650-V as alternate gene silencing products.

For independent verification of ASCC1 (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-90650A, sc-90650B and sc-90650C.

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 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

ASCC1 siRNA (h) is recommended for the inhibition of ASCC1 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor ASCC1 gene expression knockdown using RT-PCR Primer: ASCC1 (h)-PR: sc-90650-PR (20 μ 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 for detailed protocols and support products.