SANTA CRUZ BIOTECHNOLOGY, INC.

ASCC1 siRNA (m): sc-141295

BACKGROUND

ASCC1 (activating signal cointegrator 1 complex subunit 1), also known as CGI-18 or ASC1p50, is a 400 amino acid cytoplasmic protien that is ubiquitously expressed and contains one KH domain. Existing as two alternatively spliced isoforms, ASCC1 is part of the TRIP4 complex, which contains ASCC1, ASCC2 and ASCC3. ASCC1 enhances NFκB, SRF and c-Jun transactivation, and is encoded by a gene located on human chromosome 10q22.1, 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, nonsyndromatic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

REFERENCES

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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 (mouse) mapping to 10 B4.

PRODUCT

ASCC1 siRNA (m) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ASCC1 shRNA Plasmid (m): sc-141295-SH and ASCC1 shRNA (m) Lentiviral Particles: sc-141295-V as alternate gene silencing products.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

ASCC1 siRNA (m) is recommended for the inhibition of ASCC1 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 µM in 66 µl. 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 (m)-PR: sc-141295-PR (20 µl). 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.