SANTA CRUZ BIOTECHNOLOGY, INC.

BAHD1 siRNA (m): sc-141466

BACKGROUND

BAHD1 (bromo adjacent homology domain containing 1) is a 780 amino acid nuclear protein that contains a BAH domain. BAHD1 is considered a heterochromatin protein that acts as a transcription repressor and has the ability to promote the formation of large heterochromatic domains. BAHD1 may act by recruiting heterochromatin proteins such as HP1, HDAC5 and MBD1. BAHD1 exists as three alternatively spliced isoforms and is encoded by a gene located on human chromosome 15q15.1. Chromosome 15 contains more than 700 genes and is made up of approximately 106 million base pairs. Making up about 3% of the human genome, chromosome 15 is linked with diseases such as Angelman and Prader-Willi syndromes, which are associated with loss of function or deletion of genes in the 15q11-q13 region. In the case of Angelman syndrome, this loss is due to inactivity of the maternal 15q11-q13 encoded UBE3A gene in the brain by either chromosomal deletion or mutation. In cases of Prader-Willi syndrome, there is a partial or complete deletion of this region from the paternal copy of chromosome 15.

REFERENCES

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4. Lalande, M. and Calciano, M.A. 2007. Molecular epigenetics of Angelman syndrome. Cell. Mol. Life Sci. 64: 947-960.
5. Maegawa, G.H., et al. 2007. Pyrimethamine as a potential pharmacological chaperone for late-onset forms of GM2 gangliosidosis. J. Biol. Chem. 282: 9150-9161.
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CHROMOSOMAL LOCATION

Genetic locus: Bahd1 (mouse) mapping to 2 E5.

PRODUCT

BAHD1 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 BAHD1 shRNA Plasmid (m): sc-141466-SH and BAHD1 shRNA (m) Lentiviral Particles: sc-141466-V as alternate gene silencing 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

BAHD1 siRNA (m) is recommended for the inhibition of BAHD1 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 BAHD1 gene expression knockdown using RT-PCR Primer: BAHD1 (m)-PR: sc-141466-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.

PROTOCOLS

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