SANTA CRUZ BIOTECHNOLOGY, INC.

ASXL2 siRNA (h): sc-94416

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ASXL2 (additional sex combs-like protein 2) is a 1,435 amino acid protein belonging to the Asx family. ASXL2 contains one PHD-type zinc finger and two Leu-Xaa-Xaa-Leu-Leu (LXXLL) motifs, which may be required for an association with nuclear receptors. ASXL2 is believed to be a Polycomb group (PcG) protein. PcG proteins act by forming multiprotein complexes, which are required to maintain the transcriptionally repressive state of homeotic genes throughout development. PcG proteins are not required to initiate repression, but to maintain it during later stages of development. They probably act via methylation of histones, rendering chromatin heritably changed in its expressibility. ASXL2 is localized to the nucleus and is expressed as two isoforms produced by alternative splicing.

REFERENCES

1. Fisher, C.L., et al. 2003. A human homolog of additional sex combs, Additional sex comb-like 1, maps to chromosome 2p24.1. Gene 306: 115-126.
2. Katoh, M., et al. 2003. Identification and characterization of ASXL2 gene in silico. Int. J. Oncol. 23: 845-850.
3. Katoh, M., et al. 2004. Identification and characterization of ASXL3 gene in silico. Int. J. Oncol. 24: 1617-1622.
4. Katoh, M., et al. 2004. Identification and characterization of human CXXC10 gene in silico. Int. J. Oncol. 25: 1193-1199.
5. Fisher, C.L., et al. 2006. Characterization of ASXL1, a murine homolog of Additional sex combs, and analysis of the Asx-like gene family. Gene 369: 109-118.
6. Cho, Y.S., et al. 2006. Additional sex comb-like 1 (ASXL1), in cooperation with SRC-1, acts as a ligand-dependent coactivator for retinoic acid receptor. J. Biol. Chem. 281: 17588-17598.

CHROMOSOMAL LOCATION

Genetic locus: ASXL2 (human) mapping to 2p23.3.

PRODUCT

ASXL2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ASXL2 shRNA Plasmid (h): sc-94416-SH and ASXL2 shRNA (h) Lentiviral Particles: sc-94416-V as alternate gene silencing products.

For independent verification of ASXL2 (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-94416A, sc-94416B and sc-94416C.

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

ASXL2 siRNA (h) is recommended for the inhibition of ASXL2 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 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 ASXL2 gene expression knockdown using RT-PCR Primer: ASXL2 (h)-PR: sc-94416-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.