SANTA CRUZ BIOTECHNOLOGY, INC.

ASZ1 siRNA (m): sc-72574

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ASZ1 (ankyrin repeat, SAM and basic leucine zipper domain-containing protein 1), also known as ANKL1, ALP1 (Ankyrin-like protein 1), GASZ (germ cell-specific ankyrin, SAM and basic leucine zipper domain-containing protein) or Orf3, is a 475 amino acid protein that is suggested to function as a signal transducer during germ cell maturation. Localized to the cytoplasm of pachytene spermatocytes, early spermatids and oocytes, ASZ1 is primarily found in adult testis and ovary where it mediates protein-protein interactions. ASZ1 contains six ANK repeats, one SAM (sterile α motif) domain and is encoded by a gene located on human chromosome 7q31, a region that may have an important role in the development certain types of human cancer.

REFERENCES

1. Zenklusen, J.C., et al. 2001. Mutational and functional analyses reveal that ST7 is a highly conserved tumor-suppressor gene on human chromosome 7q31. Nat. Genet. 27: 392-398.
2. Katoh, M. 2002. Molecular cloning and characterization of ST7R (ST7-like, ST7L) on human chromosome 1p13, a novel gene homologous to tumor suppressor gene ST7 on human chromosome 7q31. Int. J. Oncol. 20: 1247-1253.
3. Yan, W., et al. 2002. Identification of Gasz, an evolutionarily conserved gene expressed exclusively in germ cells and encoding a protein with four ankyrin repeats, a sterile-α motif, and a basic leucine zipper. Mol. Endocrinol. 16: 1168-1184.
4. Yan, W., et al. 2004. Identification and characterization of evolutionarily conserved pufferfish, zebrafish, and frog orthologs of GASZ. Biol. Reprod. 70: 1619-1625.

CHROMOSOMAL LOCATION

Genetic locus: Asz1 (mouse) mapping to 6 A2.

PRODUCT

ASZ1 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ASZ1 shRNA Plasmid (m): sc-72574-SH and ASZ1 shRNA (m) Lentiviral Particles: sc-72574-V as alternate gene silencing products.

For independent verification of ASZ1 (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-72574A, sc-72574B and sc-72574C.

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.

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

ASZ1 siRNA (m) is recommended for the inhibition of ASZ1 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 ASZ1 gene expression knockdown using RT-PCR Primer: ASZ1 (m)-PR: sc-72574-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.