SANTA CRUZ BIOTECHNOLOGY, INC.

BOLA1 siRNA (m): sc-141723

BACKGROUND

BOLA1 (BolA-like protein 1), also known as CGI-143, is a member of the BolA/yrbA family of proteins. Members of this family are homologs of the Escherichia coli protein, BolA. BolA-like proteins are evolutionarily conserved from prokaryotes to eukaryotes and are believed to play a role in cell-cycle regulation or cell proliferation possibly via some sort of transcription regulation of other genes. In addition, BolA-like proteins may contain nucleic-acid binding properties, as is suggested by a fold structure that is similar to the KH-fold, a motif known to participate in nucleic-acid binding. Characteristic of BolA-like proteins which typically consist of approximately 100 amino acids, BOLA1 is a 137 amino acid protein.

REFERENCES

1. Lai, C.H., et al. 2000. Identification of novel human genes evolutionarily conserved in Caenorhabditis elegans by comparative proteomics. Genome Res. 10: 703-713.
2. Serapion, J., et al. 2004. Bioinformatic mining of type I microsatellites from expressed sequence tags of channel catfish (Ictalurus punctatus). Mar. Biotechnol. 6: 364-377.
3. Kasai, T., et al. 2004. Solution structure of a BolA-like protein from Mus musculus. Protein Sci. 13: 545-548.
4. Beausoleil, S.A., et al. 2006. A probability-based approach for high-throughput protein phosphorylation analysis and site localization. Nat. Biotechnol. 24: 1285-1292.

CHROMOSOMAL LOCATION

Genetic locus: Bola1 (mouse) mapping to 3 F2.1.

PRODUCT

BOLA1 siRNA (m) is a pool of 2 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 BOLA1 shRNA Plasmid (m): sc-141723-SH and BOLA1 shRNA (m) Lentiviral Particles: sc-141723-V as alternate gene silencing products.

For independent verification of BOLA1 (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-141723A and sc-141723B.

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

BOLA1 siRNA (m) is recommended for the inhibition of BOLA1 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 BOLA1 gene expression knockdown using RT-PCR Primer: BOLA1 (m)-PR: sc-141723-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.