SANTA CRUZ BIOTECHNOLOGY, INC.

FMNL3 siRNA (h): sc-62329

BACKGROUND

Formins are a conserved class of proteins expressed in all eukaryotes, with known roles in generating cellular Actin-based structures. Formin-related proteins have been implicated in morphogenesis, cytokinesis and cell polarity. FMNL3 (formin-like 3), whose alternative names include formin homology 2 domain-containing protein 3, WW domain-binding protein 3, WBP3, FHOD3, FLJ45265, DKFZp762B245 and MGC45819, is a 1,028 amino acid protein that belongs to the formin homology family. FMNL3 contains one FH2 (formin homology 2) domain, as well as a GBD/FH3 (Rho GTPase-binding/formin homology 3) domain. Three FMNL3 isoforms are known to exist as a result of alternative splicing events, and the gene encoding FMNL3 maps to human chromosome 12q13.12.

REFERENCES

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2. Katoh, M. and Katoh, M. 2003. Identification and characterization of human FMNL1, FMNL2 and FMNL3 genes in silico. Int. J. Oncol. 22: 1161-1168.
3. Katoh, M. and Katoh, M. 2004. Characterization of FMN2 gene at human chromosome 1q43. Int. J. Mol. Med. 14: 469-474.
4. Katoh, Y. and Katoh, M. 2004. Identification and characterization of CDC50A, CDC50B and CDC50C genes in silico. Oncol. Rep. 12: 939-943.
5. Schwartzberg, P.L. 2007. Formin the way. Immunity 26: 139-141.
6. Gomez, T.S., Kumar, K., Medeiros, R.B., Shimizu, Y., Leibson, P.J. and Billadeau, D.D. 2007. Formins regulate the Actin-related protein 2/3 complex-independent polarization of the centrosome to the immunological synapse. Immunity 26: 177-190.

CHROMOSOMAL LOCATION

Genetic locus: FMNL3 (human) mapping to 12q13.12.

PRODUCT

FMNL3 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 FMNL3 shRNA Plasmid (h): sc-62329-SH and FMNL3 shRNA (h) Lentiviral Particles: sc-62329-V as alternate gene silencing products.

For independent verification of FMNL3 (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-62329A, sc-62329B and sc-62329C.

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

FMNL3 siRNA (h) is recommended for the inhibition of FMNL3 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 FMNL3 gene expression knockdown using RT-PCR Primer: FMNL3 (h)-PR: sc-62329-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.