SANTA CRUZ BIOTECHNOLOGY, INC.

ECM29 siRNA (m): sc-140924

BACKGROUND

ECM29, also known as proteasome-associated protein ECM29 homolog, AI314180, AW558785, BB181316, KIAA0368 or RP23-211P15.1, is a 1,840 amino acid scaffolding protein that associates with motor proteins, the 26S proteasome and other compartment-specific proteins. Containing 25 HEAT repeats and existing as 2 alternatively spliced isoforms, ECM29 localizes to multiple structures, including Endoplasmic reticulum, cytoplasm, endosome, nucleus, centrosome and the Endoplasmic reticulum-Golgi intermediate compartment. ECM29 is thought to couple proteasomes to various structures and may have a role in enhanced proteolysis. ECM29 is expressed at highest levels in testis and brain, with lower levels in kidney, heart and liver. The gene encoding ECM29 maps to mouse chromosome 4 B3.

REFERENCES

1. Bonaldo, M.F., et al. 1996. Normalization and subtraction: two approaches to facilitate gene discovery. Genome Res. 6: 791-806.
2. Carninci, P., et al. 2000. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes. Genome Res. 10: 1617-1630.
3. Okazaki, N., et al. 2003. Prediction of the coding sequences of mouse homologues of KIAA gene: III. the complete nucleotide sequences of 500 mouse KIAA-homologous cDNAs identified by screening of terminal sequences of cDNA clones randomly sampled from size-fractionated libraries. DNA Res. 10: 167-180.
4. Gorbea, C., et al. 2004. Characterization of mammalian Ecm29, a 26 S proteasome-associated protein that localizes to the nucleus and membrane vesicles. J. Biol. Chem. 279: 54849-54861.
5. Watahiki, A., et al. 2004. Libraries enriched for alternatively spliced exons reveal splicing patterns in melanocytes and melanomas. Nat. Methods 1: 233-239.
6. Katayama, S., et al. 2005. Antisense transcription in the mammalian transcriptome. Science 309: 1564-1566.

CHROMOSOMAL LOCATION

Genetic locus: AI314180 (mouse) mapping to 4 B3.

PRODUCT

ECM29 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 ECM29 shRNA Plasmid (m): sc-140924-SH and ECM29 shRNA (m) Lentiviral Particles: sc-140924-V as alternate gene silencing products.

For independent verification of ECM29 (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-140924A, sc-140924B and sc-140924C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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

ECM29 siRNA (m) is recommended for the inhibition of ECM29 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 ECM29 gene expression knockdown using RT-PCR Primer: ECM29 (m)-PR: sc-140924-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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