SANTA CRUZ BIOTECHNOLOGY, INC.

EVI5 siRNA (m): sc-144964

BACKGROUND

EVI5 (ecotropic viral integration site 5 protein homolog), also known as NB4S (neuroblastoma stage 4S gene protein), is an 810 amino acid protein that contains one Rab-GAP TBC domain and exists in both monomeric and dimeric form. Localizing to the nucleus and cytoplasm, EVI5 is expressed in various cell lines, as well as in brain and adrenal tissue. EVI5 acts as an important regulator of cell cycle progression by stabilizing Emi1 and promoting cyclin-A accumulation, and may also play a role in cytokinesis. EVI5 interacts with α- and γ-Tubulin and the chromosome passenger complex (CPC), and undergoes phosphorylation and ubiquitination. EVI5 degradation during prophase is ubiquitin dependent, while phosphorylation is required for degradation during mitosis. The gene encoding EVI5 maps to human chromosome 1p22.1 and mouse chromosome 5 F. Depletion of EVI5 as a result of RNA interference results in cell cycle arrest and mitotic abnormalities. EVI5 may also be a potential at-risk gene for multiple sclerosis (MS).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Evi5 (mouse) mapping to 5 F.

PROTOCOLS

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

PRODUCT

EVI5 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 EVI5 shRNA Plasmid (m): sc-144964-SH and EVI5 shRNA (m) Lentiviral Particles: sc-144964-V as alternate gene silencing products.

For independent verification of EVI5 (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-144964A, sc-144964B and sc-144964C.

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

EVI5 siRNA (m) is recommended for the inhibition of EVI5 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 EVI5 gene expression knockdown using RT-PCR Primer: EVI5 (m)-PR: sc-144964-PR (20 µl, 512 bp). 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.