

D4Ertd22e siRNA (m): sc-142827

BACKGROUND

D4Ertd22e (DNA segment, Chr 4, ERATO Doi 22, expressed), also known as UPF0485 protein C1orf144 homolog, putative MAPK activating protein PM20, PM21 or RP23-183L1.10, is a 152 amino acid protein that belongs to the UPF0485 family. D4Ertd22e exists as two alternatively spliced isoforms that are encoded by a gene located on mouse chromosome 4. D4Ertd22e is the mouse homolog of human C1orf144, a protein encoded by a gene that maps to human chromosome 1. Chromosome 1 spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

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2. Plasilova, M., et al. 2004. Exclusion of an extracolonic disease modifier locus on chromosome 1p33-36 in a large Swiss familial adenomatous polyposis kindred. *Eur. J. Hum. Genet.* 12: 365-371.
3. Oliveira, S.A., et al. 2005. Identification of risk and age-at-onset genes on chromosome 1p in Parkinson disease. *Am. J. Hum. Genet.* 77: 252-264.
4. Villen, J., et al. 2007. Large-scale phosphorylation analysis of mouse liver. *Proc. Natl. Acad. Sci. USA* 104: 1488-1493.
5. Yurov, Y.B., et al. 2008. The schizophrenia brain exhibits low-level aneuploidy involving chromosome 1. *Schizophr. Res.* 98: 139-147.
6. Balcárková, J., et al. 2009. Gain of chromosome arm 1q in patients in relapse and progression of multiple myeloma. *Cancer Genet. Cytogenet.* 192: 68-72.

CHROMOSOMAL LOCATION

Genetic locus: D4Ertd22e (mouse) mapping to 4 D3.

PRODUCT

D4Ertd22e 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see D4Ertd22e shRNA Plasmid (m): sc-142827-SH and D4Ertd22e shRNA (m) Lentiviral Particles: sc-142827-V as alternate gene silencing products.

For independent verification of D4Ertd22e (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-142827A, sc-142827B and sc-142827C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

D4Ertd22e siRNA (m) is recommended for the inhibition of D4Ertd22e 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 μ M in 66 μ l. 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 D4Ertd22e gene expression knockdown using RT-PCR Primer: D4Ertd22e (m)-PR: sc-142827-PR (20 μ l). 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.