

ZNF334 siRNA (m): sc-155690

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. ZNF334 (zinc finger protein 334) is a 680 amino acid protein that contains one C₂H₂-type zinc finger and one KRAB domain. ZNF334 is expressed in the nucleus. The gene encoding ZNF334 maps to human chromosome 20. Comprising approximately 2% of the human genome, chromosome 20 contains nearly 63 million bases that encode over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome. Additionally, chromosome 20 contains a region with numerous genes which are thought important for seminal production and may be potential targets for male contraception.

REFERENCES

1. Prusiner, S.B. 1998. The prion diseases. *Brain Pathol.* 8: 499-513.
2. Collins, S., McLean, C.A. and Masters, C.L. 2001. Gerstmann-Sträussler-Scheinker syndrome, fatal familial insomnia and kuru: a review of these less common human transmissible spongiform encephalopathies. *J. Clin. Neurosci.* 8: 387-397.
3. Joó, J.G., Beke, A., Tóth-Pál, E., Hargitai, B., Szigeti, Z., Papp, C. and Papp, Z. 2006. Trisomy 20 mosaicism and nonmosaic trisomy 20: a report of 2 cases. *J. Reprod. Med.* 51: 209-212.
4. Ville, D., Kaminska, A., Bahi-Buisson, N., Biraben, A., Plouin, P., Telvi, L., Dulac, O. and Chiron, C. 2006. Early pattern of epilepsy in the ring chromosome 20 syndrome. *Epilepsia* 47: 543-549.
5. Kazantsev, A.G. 2007. Cellular pathways leading to neuronal dysfunction and degeneration. *Drug News Perspect.* 20: 501-509.
6. Lundwall, A. 2007. A locus on chromosome 20 encompassing genes that are highly expressed in the epididymis. *Asian J. Androl.* 9: 540-544.
7. O'Rand, M.G., Widgren, E.E., Wang, Z. and Richardson, R.T. 2007. Eppin: an epididymal protease inhibitor and a target for male contraception. *Soc. Reprod. Fertil. Suppl.* 63: 445-453.

CHROMOSOMAL LOCATION

Genetic locus: Zfp334 (mouse) mapping to 2 H3.

PRODUCT

ZNF334 siRNA (m) is a target-specific 19-25 nt siRNA 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 ZNF334 shRNA Plasmid (m): sc-155690-SH and ZNF334 shRNA (m) Lentiviral Particles: sc-155690-V as alternate gene silencing products.

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

ZNF334 siRNA (m) is recommended for the inhibition of ZNF334 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 ZNF334 gene expression knockdown using RT-PCR Primer: ZNF334 (m)-PR: sc-155690-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.