LOC728157 siRNA (h): sc-91557



The Power to Question

BACKGROUND

LOC728157 is a 102 amino acid protein that is encoded by a gene which maps to human chromosome Y. Chromosome Y contains approximately 58 million base pairs and houses over 80 genes, many of which are essential for proper sexual development. The Y chromosome is the human sex determining chromosome which is necessary for male development and, while deletions or defects in chromosome Y-encoded genes are not lethal, they may greatly impair masculine development and function. Carrying an additional copy of the Y chromosome, as seen in males with XYY syndrome, does not lead to an obvious phenotype and most XYY males are unaware of their additional Y chromosome. The LOC728157 gene product has been provisionally designated LOC728157 pending further characterization.

REFERENCES

- Vilain, E. and McCabe, E.R. 1998. Mammalian sex determination: from gonads to brain. Mol. Genet. Metab. 65: 74-84.
- 2. Delbridge, M.L. and Graves, J.A. 1999. Mammalian Y chromosome evolution and the male-specific functions of Y chromosome-borne genes. Rev. Reprod. 4: 101-109.
- Graves, J.A. 2001. From brain determination to testis determination: evolution of the mammalian sex-determining gene. Reprod. Fertil. Dev. 13: 665-672.
- Skaletsky, H., Kuroda-Kawaguchi, T., Minx, P.J., Cordum, H.S., Hillier, L., Brown, L.G., Repping, S., Pyntikova, T., Ali, J., Bieri, T., Chinwalla, A., Delehaunty, A., Delehaunty, K., Du, H., Fewell, G., Fulton, L., et al. 2003. The male-specific region of the human Y chromosome is a mosaic of discrete sequence classes. Nature 423: 825-837.
- Graves, J.A. 2006. Sex chromosome specialization and degeneration in mammals. Cell 124: 901-914.
- Krausz, C. and Giachini, C. 2007. Genetic risk factors in male infertility. Arch. Androl. 53: 125-133.
- Waters, P.D., Wallis, M.C. and Marshall Graves, J.A. 2007. Mammalian sex—origin and evolution of the Y chromosome and SRY. Semin. Cell Dev. Biol. 18: 389-400.
- 8. Wilhelm, D., Palmer, S. and Koopman, P. 2007. Sex determination and gonadal development in mammals. Physiol. Rev. 87: 1-28.

CHROMOSOMAL LOCATION

Genetic locus: ANKRD20A6P (human) mapping to Yq11.1.

PRODUCT

LOC728157 siRNA (h) 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 μM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see LOC728157 shRNA Plasmid (h): sc-91557-SH and LOC728157 shRNA (h) Lentiviral Particles: sc-91557-V as alternate gene silencing 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

LOC728157 siRNA (h) is recommended for the inhibition of LOC728157 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.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com