

# 4933402E13Rik siRNA (m): sc-140265

## BACKGROUND

4933402E13Rik, also known as novel MAGE family protein, RP23-146M22.1 or RIKEN 4933402E13, is a 429 amino acid mouse protein. The gene encoding 4933402E13Rik is located on chromosome X. Chromosome X contains nearly 153 million base pairs and houses over 1,000 genes. In conjunction with chromosome Y, chromosome X is responsible for sex determination. There are a number of conditions related to an abnormal number and combination of sex chromosomes, some of which include Turner's syndrome, color blindness, hemophilia and Duchenne muscular dystrophy.

## REFERENCES

1. Goto, T. and Monk, M. 1998. Regulation of X-chromosome inactivation in development in mice and humans. *Microbiol. Mol. Biol. Rev.* 62: 362-378.
2. Luikenuis, S., Wutz, A. and Jaenisch, R. 2001. Antisense transcription through the Xist locus mediates Tsix function in embryonic stem cells. *Mol. Cell. Biol.* 21: 8512-8520.
3. Navarro, P., Pichard, S., Ciaudo, C., Avner, P. and Rougeulle, C. 2005. Tsix transcription across the Xist gene alters chromatin conformation without affecting Xist transcription: implications for X-chromosome inactivation. *Genes Dev.* 19: 1474-1484.
4. Thorvaldsen, J.L., Verona, R.I. and Bartolomei, M.S. 2006. X-tra! X-tra! News from the mouse X chromosome. *Dev. Biol.* 298: 344-353.
5. Lin, H., Gupta, V., Vermilyea, M.D., Falciani, F., Lee, J.T., O'Neill, L.P. and Turner, B.M. 2007. Dosage compensation in the mouse balances up-regulation and silencing of X-linked genes. *PLoS Biol.* 5: e326.
6. Lee, J.T. 2009. Lessons from X-chromosome inactivation: long ncRNA as guides and tethers to the epigenome. *Genes Dev.* 23: 1831-1842.

## CHROMOSOMAL LOCATION

Genetic locus: 4933402E13Rik (mouse) mapping to X A6.

## PRODUCT

4933402E13Rik 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see 4933402E13Rik shRNA Plasmid (m): sc-140265-SH and 4933402E13Rik shRNA (m) Lentiviral Particles: sc-140265-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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

4933402E13Rik siRNA (m) is recommended for the inhibition of 4933402E13Rik 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  $\mu$ M in 66  $\mu$ 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 4933402E13Rik gene expression knockdown using RT-PCR Primer: 4933402E13Rik (m)-PR: sc-140265-PR (20  $\mu$ 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.