SANTA CRUZ BIOTECHNOLOGY, INC.

TPRX1 siRNA (h): sc-97379

BACKGROUND

TPRX1 (tetra-peptide repeat homeobox protein 1) is a 411 amino acid nuclear protein that contains a homeobox DNA-binding domain. Most homeodomain proteins function as transcription factors and play roles in important physiological events such as cell differentiation and embryonic development. The gene encoding TPRX1 maps to human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fc receptors (FcRs). There are two isoforms of TPRX1 that are produced as a result of alternative splicing events.

REFERENCES

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3. Gilbert, F. 1997. Disease genes and chromosomes: disease maps of the human genome. Chromosome 19. Genet. Test. 1: 145-149.
4. Gerhard, D.S., et al. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the mammalian gene collection (MGC). Genome Res. 14: 2121-2127.
5. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. Nat. Genet. 36: 40-45.
6. Grimwood, J., et al. 2004. The DNA sequence and biology of human chromosome 19. Nature 428: 529-535.
7. Zhou, S.X., et al. 2004. The progress in complex homeobox domains. Yi Chuan 26: 984-990.
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CHROMOSOMAL LOCATION

Genetic locus: TPRX1 (human) mapping to 19q13.33.

PRODUCT

TPRX1 siRNA (h) 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 TPRX1 shRNA Plasmid (h): sc-97379-SH and TPRX1 shRNA (h) Lentiviral Particles: sc-97379-V as alternate gene silencing products.

For independent verification of TPRX1 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-97379A, sc-97379B and sc-97379C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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

TPRX1 siRNA (h) is recommended for the inhibition of TPRX1 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TPRX1 gene expression knockdown using RT-PCR Primer: TPRX1 (h)-PR: sc-97379-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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