SANTA CRUZ BIOTECHNOLOGY, INC.

CRISP-10 siRNA (h): sc-77571

BACKGROUND

Cysteine-rich secretory proteins (CRISPs) represent a family of evolutionarily conserved proteins which may play a role in the innate immune system and are transcriptionally regulated by androgens in several tissues. CRISP proteins are highly expressed in the mammalian reproductive tract and in the venom secretory ducts of some reptiles. CRISP-10 (cysteine-rich secretory protein 10), also known as CocoaCrisp and Trypsin inhibitor HI, is a 500 amino acid protein containing two LCCL domains, which are thought to function as autonomous folding domains used to construct modular proteins through exon shuffling. CRISP-10 differs from other CRISP proteins in that it does not contain the 10 conserved cysteine residues or ICR domains that are usually conserved throughout the CRISP family.

REFERENCES

1. Trexler, M., et al. 2000. The LCCL module. Eur. J. Biochem. 267: 5751-5757.
2. Chiquet, B.T., et al. 2007. CRISPLD2: a novel NSCLP candidate gene. Hum. Mol. Genet. 16: 2241-2248.
3. Gibbs, G.M., et al. 2007. Cysteine rich secretory proteins in reproduction and venom. Soc. Reprod. Fertil. Suppl. 65: 261-267.
4. Vadnais, M.L., et al. 2008. Molecular cloning and expression of the CRISP family of proteins in the boar. Biol. Reprod. 79: 1129-1134.
5. Reddy, T., et al. 2008. Cysteine-rich secretory proteins are not exclusively expressed in the male reproductive tract. Dev. Dyn. 237: 3313-3323.
6. Gibbs, G.M., et al. 2008. The CAP superfamily: cysteine-rich secretory proteins, antigen 5, and pathogenesis-related 1 proteins—roles in reproduction, cancer, and immune defense. Endocr. Rev. 29: 865-897.
7. Cohen, D.J., et al. 2008. Participation of cysteine-rich secretory proteins (CRISP) in mammalian sperm-egg interaction. Int. J. Dev. Biol. 52: 737-742.
8. Ramazanova, A.S., et al. 2009. Cysteine-rich venom proteins from the snakes of Viperinae subfamily-Molecular cloning and phylogenetic relationship. Toxicon 53: 162-168.

CHROMOSOMAL LOCATION

Genetic locus: CRISPLD1 (human) mapping to 8q21.11.

PRODUCT

CRISP-10 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 CRISP-10 shRNA Plasmid (h): sc-77571-SH and CRISP-10 shRNA (h) Lentiviral Particles: sc-77571-V as alternate gene silencing products.

For independent verification of CRISP-10 (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-77571A, sc-77571B and sc-77571C.

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

CRISP-10 siRNA (h) is recommended for the inhibition of CRISP-10 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 CRISP-10 gene expression knockdown using RT-PCR Primer: CRISP-10 (h)-PR: sc-77571-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.