SANTA CRUZ BIOTECHNOLOGY, INC.

SREB3 siRNA (m): sc-61615

BACKGROUND

G protein-coupled receptors (GPRs or GPCRs), are members of the largest protein family and play a role in many different stimulus-response pathways. G protein-coupled receptors mediate extracellular signals into intracellular signals (G protein activation). They respond to a great variety of signaling molecules, including hormones, neurotransmitters and other proteins and peptides. GPR173 is also known as super conserved receptor expressed in brain 3 (SREB3). It is an orphan receptor that is expressed primarily in brain and ovary tissues.

REFERENCES

1. O'Dowd, B.F., et al. 1998. Discovery of three novel G protein-coupled receptor genes. Genomics 47: 310-313.
2. Hellebrand, S., et al. 2000. The brain-specific G protein-coupled receptor GPR85 with identical protein sequence in man and mouse maps to human chromosome 7q31. Biochim. Biophys. Acta 1493: 269-272.
3. Matsumoto, M., et al. 2000. An evolutionarily conserved G protein-coupled receptor family, SREB, expressed in the central nervous system. Biochem. Biophys. Res. Commun. 272: 576-582.
4. Hellebrand, S., et al. 2004. expressed in the developing mouse cerebral cortex. Brain Res. Gene Expr. Patterns 1: 13-16.
5. Matsumoto, M., et al. 2005. A conserved mRNA expression profile of SREB2 (GPR85) in adult human, monkey, and rat forebrain. Brain Res. Mol. Brain Res. 138: 58-69.

CHROMOSOMAL LOCATION

Genetic locus: Gpr173 (mouse) mapping to X F3.

PRODUCT

SREB3 siRNA (m) 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 SREB3 shRNA Plasmid (m): sc-61615-SH and SREB3 shRNA (m) Lentiviral Particles: sc-61615-V as alternate gene silencing products.

For independent verification of SREB3 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-61615A, sc-61615B and sc-61615C.

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

SREB3 siRNA (m) is recommended for the inhibition of SREB3 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 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 SREB3 gene expression knockdown using RT-PCR Primer: SREB3 (m)-PR: sc-61615-PR (20 µl). 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 for detailed protocols and support products.