SANTA CRUZ BIOTECHNOLOGY, INC.

CaBP5 siRNA (h): sc-105174

BACKGROUND

The calcium binding protein (CaBP) family shares much similarity to calmodulin. It has been shown that CaBP proteins can substitute functionally for, and probably augment the function of, calmodulin. Calcium binding proteins are a crucial part of calcium mediated cellular signal transduction in the central nervous system. There are several members of the family with varying expression patterns. CaBP1 and CaBP2 can be expressed as multiple, alternatively spliced variants in brain and retina. CaBP3, CaBP4 and CaBP5 are restricted to retinal rod and cone cells.

REFERENCES

1. Peter, F., et al. 1992. Different sorting of Lys-Asp-Glu-Leu proteins in rat liver. J. Biol. Chem. 267: 10631-10637.
2. Hensel, G., et al. 1994. Hormonal regulation of protein disulfide isomerase and chaperone synthesis in the rat exocrine pancreas. Eur. J. Cell Biol. 63: 208-218.
3. Haeseleer, F., et al. 2000. Five members of a novel Ca^{2+}-binding protein (CABP) subfamily with similarity to calmodulin. J. Biol. Chem. 275: 1247-1260.
4. Ichikawa, H., et al. 2003. Calcium-binding protein-immunoreactive innervation of the rat vibrissa. Brain Res. 970: 226-231.
5. SWISS-PROT/TrEMBL (Q9NZU7). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html

CHROMOSOMAL LOCATION

Genetic locus: CABP5 (human) mapping to 19q13.33.

PRODUCT

CaBP5 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 CaBP5 shRNA Plasmid (h): sc-105174-SH and CaBP5 shRNA (h) Lentiviral Particles: sc-105174-V as alternate gene silencing products.

For independent verification of CaBP5 (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-105174A, sc-105174B and sc-105174C.

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.

RESEARCH USE

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

APPLICATIONS

CaBP5 siRNA (h) is recommended for the inhibition of CaBP5 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 CaBP5 gene expression knockdown using RT-PCR Primer: CaBP5 (h)-PR: sc-105174-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.