SANTA CRUZ BIOTECHNOLOGY, INC.

CaBP7 siRNA (h): sc-72772

BACKGROUND

Calcium plays an essential role in many biological processes. The calcium binding protein (CaBP) family shares much similarity with CaM I (calmodulin). It has been shown that CaBP proteins can substitute functionally for, and possibly augment the function of, CaM I. Calcium binding proteins play a crucial role in the calcium-mediated cellular signal transduction pathway in the central nervous system. There are several members of the family with varying expression patterns. CaBP7 (calcium-binding protein 7) is a 257 amino acid protein that shares 70% homology with CaBP8 and 50% homology with CaM I. Charactieristic of the CaBP protein family, CaBP7 contains two EF-hand domains for calcium binding.

REFERENCES

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3. Burgoyne, R.D. and Weiss, J.L. 2001. The neuronal calcium sensor family of Ca^{2+}-binding proteins. Biochem. J. 353: 1-12.
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6. Yu, L.R., Zhu, Z., Chan, K.C., Issaq, H.J., Dimitrov, D.S. and Veenstra, T.D. 2007. Improved titanium dioxide enrichment of phosphopeptides from HeLa cells and high confident phosphopeptide identification by cross-validation of MS/MS and MS/MS/MS spectra. J. Proteome Res. 6: 4150-4162.

CHROMOSOMAL LOCATION

Genetic locus: CABP7 (human) mapping to 22q12.2.

PRODUCT

CaBP7 siRNA (h) is a pool of 2 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 CaBP7 shRNA Plasmid (h): sc-72772-SH and CaBP7 shRNA (h) Lentiviral Particles: sc-72772-V as alternate gene silencing products.

For independent verification of CaBP7 (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-72772A and sc-72772B.

PROTOCOLS

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

CaBP7 siRNA (h) is recommended for the inhibition of CaBP7 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 CaBP7 gene expression knockdown using RT-PCR Primer: CaBP7 (h)-PR: sc-72772-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.