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CAPS2 siRNA (m): sc-142005

BACKGROUND

CAPS2 (calcyphosine 2), also known as calcyphosin-2, is a 557 amino acid calcium-binding protein that is abundantly expressed, with highest expression found in placenta, testis, colon, lung and brain. CAPS2 contains three EF-hand domains and exists as three alternatively spliced isoforms. Suggested to play a role in large dense-core vesicle (LDCV) exocytosis, CAPS2 is encoded by a gene that maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Caps2 (mouse) mapping to 10 D2.

PRODUCT

CAPS2 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CAPS2 shRNA Plasmid (m): sc-142005-SH and CAPS2 shRNA (m) Lentiviral Particles: sc-142005-V as alternate gene silencing products.

For independent verification of CAPS2 (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-142005A, sc-142005B and sc-142005C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

CAPS2 siRNA (m) is recommended for the inhibition of CAPS2 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 μ M in 66 μ l. 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 CAPS2 gene expression knockdown using RT-PCR Primer: CAPS2 (m)-PR: sc-142005-PR (20 μ l). Annealing temperature for the primers should be $55-60^{\circ}$ C and the extension temperature should be $68-72^{\circ}$ C.

PROTOCOLS

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