SANTA CRUZ BIOTECHNOLOGY, INC.

EF-CAB7 siRNA (m): sc-143306

BACKGROUND

The intracellular calcium-binding superfamily of proteins consists of EF-hand calcium binding domains and are often involved in the regulation of many different cellular processes. An EF-hand calcium binding domain is made up of approximately 40 amino acids and can bind to two intracellular calcium ions. Two types of EF-hand calcium binding motifs exist: regulatory and structural. Proteins containing the regulatory EF-hand domain induce conformational change, allowing interaction with target proteins and catalyzing enzymatic reactions, whereas structural EF-hand domain containing proteins do not undergo conformational change and may play a role in buffering intracellular calcium levels. EF-CAB7 (EF-hand calcium binding domain 7) is a 629 amino acid protein that contains three EH-hand domains. EF-CAB7 contains two alternatively spliced isoforms and is encoded by a gene located on human chromosome 1p31.3.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Efcab7 (mouse) mapping to 4 C6.

RESEARCH USE

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

PRODUCT

EF-CAB7 siRNA (m) is a target-specific 19-25 nt siRNA 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 EF-CAB7 shRNA Plasmid (m): sc-143306-SH and EF-CAB7 shRNA (m) Lentiviral Particles: sc-143306-V as alternate gene silencing 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

EF-CAB7 siRNA (m) is recommended for the inhibition of EF-CAB7 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 EF-CAB7 gene expression knockdown using RT-PCR Primer: EF-CAB7 (m)-PR: sc-143306-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.