SANTA CRUZ BIOTECHNOLOGY, INC.

PMS7 siRNA (h): sc-89465

BACKGROUND

PMS7 (postmeiotic segregation increased protein 7), also known as PMS2P5 (postmeiotic segregation increased 2 pseudogene 5), PMS2L5 (postmeiotic segregation increased 2-like protein 5) or PMS4 (postmeiotic segregation increased protein 4), is a 134 amino acid protein that belongs to the DNA mismatch repair mutL/hexB family. Participating in ATP binding and in mismatched DNA binding, PMS7 is likely a predominant target for regulation by p53. PMS7 is reactive to DNA damage and p53 activation in normal human fibroblasts, and contains p53-response elements within its first intron. PMS7 may function as a sensor in DNA repair mechanisms and may act as a critical determinant for the decision between cell-cycle arrest and apoptosis. The gene that encodes PMS7 maps to human chromosome 7q11.23.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PMS2P5 (human) mapping to 7q11.23.

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.

PRODUCT

PMS7 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 PMS7 shRNA Plasmid (h): sc-89465-SH and PMS7 shRNA (h) Lentiviral Particles: sc-89465-V as alternate gene silencing products.

For independent verification of PMS7 (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-89465A, sc-89465B and sc-89465C.

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

PMS7 siRNA (h) is recommended for the inhibition of PMS7 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 PMS7 gene expression knockdown using RT-PCR Primer: PMS7 (h)-PR: sc-89465-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.