SANTA CRUZ BIOTECHNOLOGY, INC.

ING5 siRNA (m): sc-146237

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The Power to Question

BACKGROUND

Inhibitor of growth protein (ING) family of nuclear proteins, also designated ING tumor suppressor proteins, inhibit tumor progression by modulating the transcriptional outputs of signaling pathways, which in turn regulates cell proliferation. Members of this family include ING1, ING2, ING3, ING4, ING5 and INGX. ING5 (inhibitor of growth family, member 5), also known as p28ING5, is a 240 amino acid nuclear protein containing a single PHD-type zinc finger, a common motif found in proteins involved in chromatin remodeling. Through chromatin acetylation, ING5 may regulate DNA replication and may function as a transcriptional coactivator. ING5 also acts as a tumor suppressor that interacts with p53, inhibits cell growth and induces apoptosis. ING5 is expressed as two isoforms produced by alternative splicing events and is encoded by a gene located on human chromosome 2.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Ing5 (mouse) mapping to 1 D.

PRODUCT

ING5 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ING5 shRNA Plasmid (m): sc-146237-SH and ING5 shRNA (m) Lentiviral Particles: sc-146237-V as alternate gene silencing products.

For independent verification of ING5 (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-146237A, sc-146237B and sc-146237C.

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

ING5 siRNA (m) is recommended for the inhibition of ING5 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 ING5 gene expression knockdown using RT-PCR Primer: ING5 (m)-PR: sc-146237-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.