

DDX50 siRNA (h): sc-90688

BACKGROUND

DDX50 (probable ATP-dependent RNA helicase DDX50, nucleolar protein Gu2, Gu-β) is a 737 amino acid protein encoded by the human gene DDX50. DDX50 belongs to the DEAD-box helicase family, DDX21/DDX50 subfamily and contains one helicase ATP-binding domain and one C-terminal helicase domain. DDX50 is a functional interaction partner of c-Jun in human cells. The N-terminal transcription activation region of c-Jun interacts with a C-terminal domain of DDX50. This interaction is stimulated by Anisomycin treatment in a manner that is concurrent with, but independent of, c-Jun phosphorylation. DDX50 is also believed to be a probable ATP-dependent RNA helicase. RNA helicases are highly conserved enzymes that utilize the energy derived from NTP hydrolysis to modulate the structure of RNA. RNA helicases participate in all biological processes that involve RNA, including transcription, splicing and translation.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DDX50 (human) mapping to 10q22.1.

PROTOCOLS

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

PRODUCT

DDX50 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 DDX50 shRNA Plasmid (h): sc-90688-SH and DDX50 shRNA (h) Lentiviral Particles: sc-90688-V as alternate gene silencing products.

For independent verification of DDX50 (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-90688A, sc-90688B and sc-90688C.

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

DDX50 siRNA (h) is recommended for the inhibition of DDX50 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 DDX50 gene expression knockdown using RT-PCR Primer: DDX50 (h)-PR: sc-90688-PR (20 μl, 468 bp). 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.