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# Produktinformation

- Forschungsprodukte & Biochemikalien
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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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SANTA CRUZ BIOTECHNOLOGY, INC.

# DDX17 siRNA (m): sc-142922

## BACKGROUND

Characterized by the conserved motif Asp-Glu-Ala-Asp, DEAD box proteins are putative RNA helicases implicated in several cellular processes involving modifications of RNA secondary structure. Specifically, DEAD box proteins are involved in translation initiation, nuclear and mitochondrial splicing, and ribosome and spliceosome assembly. Based on their distribution patterns, members of this family may be involved in embryogenesis, spermatogenesis, and cellular growth and division. DDX17 (DEAD box protein 17), also designated p72, is highly homologous to DDX5 (p68). DDX17 and DDX5 have been implicated in growth regulation by acting as transcriptional co-regulators for several transcription factors, including ER$\alpha$, p53, MyoD and RunX2. Impairment of DDX17 may affect early brain development and can lead to Down syndrome. Alternatively, up-regulation of DDX17 and DDX5 directly contributes to colon cancer, suggesting that DDX17 may be a useful therapeutic target to combat colon cancer.

## REFERENCES


1. Lamm, G.M., et al. 1996. p72: a human nuclear DEAD box protein highly related to p68. Nucleic Acids Res. 24: 3739-3747.
2. Uhlmann-Schiffler, H., et al. 2002. The mRNA of DEAD box protein p72 is alternatively translated into an 82-kDa RNA helicase. J. Biol. Chem. 277: 1066-1075.
3. Kircher, S.G., et al. 2002. Reduced levels of DEAD-box proteins DBP-RB and p72 in fetal Down syndrome brains. Neurochem. Res. 27: 1141-1146.
4. Wilson, B.J., et al. 2004. The p68 and p72 DEAD box RNA helicases interact with HDAC1 and repress transcription in a promoter-specific manner. BMC Mol. Biol. 5: 11.
5. Abdelhaleem, M. 2005. RNA helicases: regulators of differentiation. Clin. Biochem. 38: 499-503.
6. Shin, S., et al. 2007. Involvement of RNA helicases p68 and p72 in colon cancer. Cancer Res. 67: 7572-7578.
7. Jalal, C., et al. 2007. Redundant role of DEAD box proteins p68 (Ddx5) and p72/p82 (DDX17) in ribosome biogenesis and cell proliferation. Nucleic Acids Res. 35: 3590-3601.


## CHROMOSOMAL LOCATION

Genetic locus: Ddx17 (mouse) mapping to 15 E1.

## PRODUCT

DDX17 siRNA (m) is a pool of 2 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 DDX17 shRNA Plasmid (m): sc-142922-SH and DDX17 shRNA (m) Lentiviral Particles: sc-142922-V as alternate gene silencing products.

For independent verification of DDX17 (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-142922A and sc-142922B.

## 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

DDX17 siRNA (m) is recommended for the inhibition of DDX17 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.

## GENE EXPRESSION MONITORING

DDX17 (H-7): sc-398168 is recommended as a control antibody for monitoring of DDX17 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG$\kappa$ BP-HRP: sc-516102 or m-IgG$\kappa$ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG$\kappa$ BP-FITC: sc-516140 or m-IgG$\kappa$ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor DDX17 gene expression knockdown using RT-PCR Primer: DDX17 (m)-PR: sc-142922-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.

## PROTOCOLS

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