SANTA CRUZ BIOTECHNOLOGY, INC.

# DDX28 (E-15): sc-164160

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

DEAD-box proteins, characterized by the conserved motif Asp-Glu-Ala-Asp, are putative RNA helicases implicated in several cellular processes involving modifications of RNA secondary structure and ribosome/spliceosome assembly. Based on their distribution patterns, some members of this family may be involved in embryogenesis, spermatogenesis and cellular growth and division. DDX28 (DEAD (Asp-Glu-Ala-Asp) box polypeptide 28), also known as DHX28, is a nuclear protein belonging to the DEAD box helicase family. Localized to the mitochondria, DDX28 is expressed in brain, placenta, lung, liver, skeletal muscle, kidney, pancreas, leukocytes, colon, small intestine, ovary and prostate. DDX28 has RNA and $Mg^{2+}$-dependent ATPase activity and may be involved in RNA processing or transport.

## REFERENCES


1. Schmid, S.R. and Linder, P. 1992. D-E-A-D protein family of putative RNA helicases. Mol. Microbiol. 6: 283-291.
2. Valgardsdottir, R., Brede, G., Eide, L.G., Frengen, E. and Prydz, H. 2001. Cloning and characterization of MDDX28, a putative dead-box helicase with mitochondrial and nuclear localization. J. Biol. Chem. 276: 32056-32063.
3. Will, C.L., Urlaub, H., Achsel, T., Gentzel, M., Wilm, M. and Lührmann, R. 2002. Characterization of novel SF3b and 17S U2 snRNP proteins, including a human Prp5p homologue and an SF3b DEAD-box protein. EMBO J. 21: 4978-4988.
4. Abdelhaleem, M., Maltais, L. and Wain, H. 2003. The human DDX and DHX gene families of putative RNA helicases. Genomics 81: 618-622.
5. Valgardsdottir, R. and Prydz, H. 2003. Transport signals and transcription-dependent nuclear localization of the putative DEAD-box helicase MDDX28. J. Biol. Chem. 278: 21146-21154.
6. Cordin, O., Tanner, N.K., Doère, M., Linder, P. and Banroques, J. 2004. The newly discovered Q motif of DEAD-box RNA helicases regulates RNA-binding and helicase activity. EMBO J. 23: 2478-2487.


## CHROMOSOMAL LOCATION

Genetic locus: DDX28 (human) mapping to 16q22.1; Ddx28 (mouse) mapping to 8 D3.

## SOURCE

DDX28 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DDX28 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-164160 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

DDX28 (E-15) is recommended for detection of DDX28 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other DDX family members.

DDX28 (E-15) is also recommended for detection of DDX28 in additional species, including bovine and porcine.

Suitable for use as control antibody for DDX28 siRNA (h): sc-93209, DDX28 siRNA (m): sc-142928, DDX28 shRNA Plasmid (h): sc-93209-SH, DDX28 shRNA Plasmid (m): sc-142928-SH, DDX28 shRNA (h) Lentiviral Particles: sc-93209-V and DDX28 shRNA (m) Lentiviral Particles: sc-142928-V.

Molecular Weight of DDX28: 60 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

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