SANTA CRUZ BIOTECHNOLOGY, INC.

DDX8 (N-15): sc-131913

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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. DDX8 (DEAH-box polypeptide 8), also known as DHX8, HRH1 or PRP22, contains an arginine- and serine-rich domain (RS domain) that is characteristic of some splicing factors. DDX8 may be targeted to the spliceosome through an interaction involving its RS domain.

REFERENCES

1. Ono, Y., et al. 1994. Identification of a putative RNA helicase (HRH1), a human homolog of yeast Prp22. Mol. Cell. Biol. 14: 7611-7620.
2. Py, B., et al. 1996. A DEAD-box RNA helicase in the *Escherichia coli* RNA degradosome. Nature 381: 169-172.
3. Eisen, A., et al. 1998. A novel DEAD-box RNA helicase exhibits high sequence conservation from yeast to humans. Biochim. Biophys. Acta 1397: 131-136.
4. Kittler, R., et al. 2004. An endoribonuclease-prepared siRNA screen in human cells identifies genes essential for cell division. Nature 432: 1036-1040.
5. Zhang, D.Y., et al. 2006. Molecular cloning and characterization of a putative nuclear DEAD box RNA helicase in the spruce budworm, *Choristoneura fumiferana*. Arch. Insect Biochem. Physiol. 61: 209-219.
6. Jain, C. 2008. The *E. coli* RhlE RNA helicase regulates the function of related RNA helicases during ribosome assembly. RNA 14: 381-389.
7. Theissen, B., et al. 2008. Cooperative binding of ATP and RNA induces a closed conformation in a DEAD box RNA helicase. Proc. Natl. Acad. Sci. USA 105: 548-553.

CHROMOSOMAL LOCATION

Genetic locus: DHX8 (human) mapping to 17q21.31; Dhx8 (mouse) mapping to 11 D.

SOURCE

DDX8 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of DDX8 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-131913 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

DDX8 (N-15) is recommended for detection of DDX8 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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.

DDX8 (N-15) is also recommended for detection of DDX8 in additional species, including bovine and porcine.

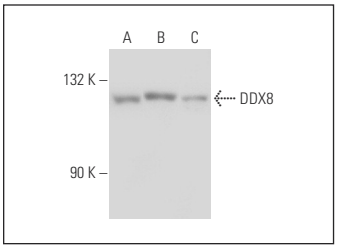
Suitable for use as control antibody for DDX8 siRNA (h): sc-93820, DDX8 siRNA (m): sc-142948, DDX8 shRNA Plasmid (h): sc-93820-SH, DDX8 shRNA Plasmid (m): sc-142948-SH, DDX8 shRNA (h) Lentiviral Particles: sc-93820-V and DDX8 shRNA (m) Lentiviral Particles: sc-142948-V.

Positive Controls: HeLa nuclear extract: sc-2120, NIH/3T3 nuclear extract: sc-2138 or Y79 nuclear extract: sc-2126.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



DDX8 (N-15): sc-131913. Western blot analysis of DDX8 expression in Y79 (**A**), HeLa (**B**) and NIH/3T3 (**C**) nuclear extracts.

RESEARCH USE

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