SANTA CRUZ BIOTECHNOLOGY, INC.

DDX17 (S-17): sc-86409



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 α , 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

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- 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.
- 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.
- 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.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: DDX17 (human) mapping to 22q13.1; Ddx17 (mouse) mapping to 15 E1.

SOURCE

DDX17 (S-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of DDX17 of human origin.

PRODUCT

Each vial contains 100 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86409 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

DDX17 (S-17) is recommended for detection of DDX17 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.

Suitable for use as control antibody for DDX17 siRNA (h): sc-77106, DDX17 siRNA (m): sc-142922, DDX17 shRNA Plasmid (h): sc-77106-SH, DDX17 shRNA Plasmid (m): sc-142922-SH, DDX17 shRNA (h) Lentiviral Particles: sc-77106-V and DDX17 shRNA (m) Lentiviral Particles: sc-142922-V.

Molecular Weight of DDX17 isoforms: 72/82 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, HEK293 whole cell lysate: sc-45136 or Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA





DDX17 (S-17): sc-86409. Western blot analysis of DDX17 expression in 293T whole cell lysate.

DDX17 (S-17): sc-86409. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

RESEARCH USE

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



Try DDX17 (H-7): sc-398168 or DDX17 (C-9): sc-271112, our highly recommended monoclonal aternatives to DDX17 (S-17).