SANTA CRUZ BIOTECHNOLOGY, INC.

DDX11 (H-300): sc-68855

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. DDX11 (DEAD/H box protein 11), also known as CHLR1 or KRG2, is a member of the DEAD-box protein family and possesses both ATPase and DNA helicase activity. A homolog of the *S. cerevisiae* CHL1 protein, DDX11 is localized to the nucleus and is highly expressed in the testis, thymus, ovary, spleen and pancreas. DDX11 can bind to both single- and double-stranded DNA and is essential for proper chromosome segregation and embryonic development. Five isoforms of DDX11 exist due to alternative splicing events.

REFERENCES

1. Frank, S. and Werner, S. 1996. The human homologue of the yeast CHL1 gene is a novel keratinocyte growth factor-regulated gene. J. Biol. Chem. 271: 24337-24340.
2. Amann, J., et al. 1997. Localization of chi1-related helicase genes to human chromosome regions 12p11 and 12p13: similarity between parts of these genes and conserved human telomeric-associated DNA. Genomics 32: 260-265.
3. Amann, J., et al. 1997. Characterization of putative human homologues of the yeast chromosome transmission fidelity gene, CHL1. J. Biol. Chem. 272: 3823-3832.
4. Hirota, Y. and Lahti, J.M. 2000. Characterization of the enzymatic activity of hChlR1, a novel human DNA helicase. Nucleic Acids Res. 28: 917-924.
5. Genini, S., et al. 2006. Radiation hybrid mapping of 18 positional and physiological candidate genes for arthrogryposis multiplex congenita on porcine chromosome 5. Anim. Genet. 37: 239-244.
6. Sjöblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. Science 314: 268-274.
7. Parish, J.L., et al. 2006. The DNA helicase ChlR1 is required for sister chromatid cohesion in mammalian cells. J. Cell Sci. 119: 4857-4865.
8. Parish, J.L., et al. 2006. ChlR1 is required for loading papillomavirus E2 onto mitotic chromosomes and viral genome maintenance. Mol. Cell 24: 867-876.
9. Inoue, A., et al. 2007. Loss of ChlR1 helicase in mouse causes lethality due to the accumulation of aneuploid cells generated by cohesion defects and placental malformation. Cell Cycle 6: 1646-1654.

CHROMOSOMAL LOCATION

Genetic locus: DDX11 (human) mapping to 12p11.21; Ddx11 (mouse) mapping to 17 E1.1.

SOURCE

DDX11 (H-300) is a rabbit polyclonal antibody raised against amino acids 405-704 mapping within an internal region of DDX11 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.

APPLICATIONS

DDX11 (H-300) is recommended for detection of DDX11 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).

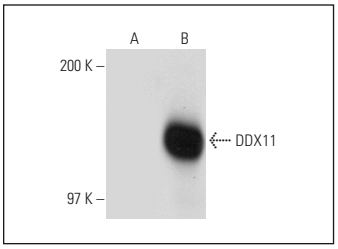
DDX11 (H-300) is also recommended for detection of DDX11 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for DDX11 siRNA (h): sc-77104, DDX11 siRNA (m): sc-77105, DDX11 shRNA Plasmid (h): sc-77104-SH, DDX11 shRNA Plasmid (m): sc-77105-SH, DDX11 shRNA (h) Lentiviral Particles: sc-77104-V and DDX11 shRNA (m) Lentiviral Particles: sc-77105-V.

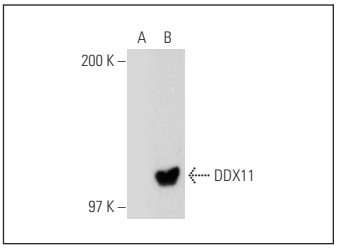
Molecular Weight of DDX11: 112 kDa.

Positive Controls: DDX11 (h2): 293T Lysate: sc-116180.

DATA



DDX11 (H-300): sc-68855. Western blot analysis of DDX11 expression in non-transfected: sc-117752 (**A**) and human DDX11 transfected: sc-116180 (**B**) 293T whole cell lysates.



DDX11 (H-300): sc-68855. Western blot analysis of DDX11 expression in non-transfected: sc-117752 (**A**) and human DDX11 transfected: sc-113579 (**B**) 293T whole cell lysates.

STORAGE

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

RESEARCH USE

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