

DDX11 (W-17): sc-68468

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

- 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.
- Amann, J., Valentine, M., Kidd, V.J. and Lahti, J.M. 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.
- Amann, J., Kidd, V.J. and Lahti, J.M. 1997. Characterization of putative human homologues of the yeast chromosome transmission fidelity gene, CHL1. *J. Biol. Chem.* 272: 3823-3832.
- Hirota, Y. and Lahti, J.M. 2000. Characterization of the enzymatic activity of hChR1, a novel human DNA helicase. *Nucleic Acids Res.* 28: 917-924.
- Genini, S., Nguyen, T.T., Malek, M., Talbot, R., Gebert, S., Rohrer, G., Nonneman, D., Stranzinger, G. and Vögeli, P. 2006. Radiation hybrid mapping of 18 positional and physiological candidate genes for arthrogyposis multiplex congenita on porcine chromosome 5. *Anim. Genet.* 37: 239-244.
- Sjöblom, T., Jones, S., Wood, L.D., Parsons, D.W., Lin, J., Barber, T.D., Mandelker, D., Leary, R.J., Ptak, J., Silliman, N., Szabo, S., Buckhaults, P., Farrell, C., Meeh, P., Markowitz, S.D., Willis, J., Dawson, D., Willson, J.K., Gazdar, A.F., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. *Science* 314: 268-274.
- Parish, J.L., Rosa, J., Wang, X., Lahti, J.M., Doxsey, S.J. and Androphy, E.J. 2006. The DNA helicase ChR1 is required for sister chromatid cohesion in mammalian cells. *J. Cell Sci.* 119: 4857-4865.
- Parish, J.L., Bean, A.M., Park, R.B. and Androphy, E.J. 2006. ChR1 is required for loading papillomavirus E2 onto mitotic chromosomes and viral genome maintenance. *Mol. Cell* 24: 867-876.

CHROMOSOMAL LOCATION

Genetic locus: DDX11 (human) mapping to 12p11.21, DDX12P (human) mapping to 12p13.31; Ddx11 (mouse) mapping to 17 E1.1.

RESEARCH USE

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

SOURCE

DDX11 (W-17) is an affinity purified goat polyclonal antibody raised against a peptide 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.

Blocking peptide available for competition studies, sc-68468 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DDX11 (W-17) is recommended for detection of DDX11 and DDX12 of human origin and DDX11 of mouse and rat origin 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).

DDX11 (W-17) is also recommended for detection of DDX11 and DDX12 of human origin and DDX11 of mouse and rat origin in additional species, including equine and canine.

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

Molecular Weight of DDX11: 112 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.

STORAGE

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

PROTOCOLS

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

MONOS
Satisfaction
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Try **DDX11 (D-2): sc-271711** or **DDX11 (C-10): sc-515166**, our highly recommended monoclonal alternatives to DDX11 (W-17).