

DDX11 (F-2): sc-271700

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., et al. 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., et al. 2000. Characterization of the enzymatic activity of hChIR1, a novel human DNA helicase. *Nucleic Acids Res.* 28: 917-924.

CHROMOSOMAL LOCATION

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

SOURCE

DDX11 (F-2) is a mouse monoclonal antibody raised against amino acids 405-704 mapping within an internal region of DDX11 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DDX11 (F-2) is available conjugated to agarose (sc-271700 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271700 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271700 PE), fluorescein (sc-271700 FITC), Alexa Fluor® 488 (sc-271700 AF488), Alexa Fluor® 546 (sc-271700 AF546), Alexa Fluor® 594 (sc-271700 AF594) or Alexa Fluor® 647 (sc-271700 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271700 AF680) or Alexa Fluor® 790 (sc-271700 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

DDX11 (F-2) is recommended for detection of DDX11 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

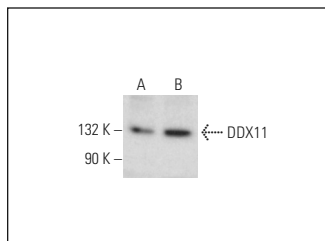
Molecular Weight of DDX11: 112 kDa.

Positive Controls: F9 cell lysate: sc-2245, HeLa whole cell lysate: sc-2200 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

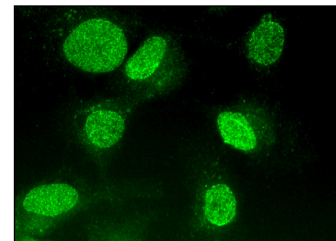
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



DDX11 (F-2): sc-271700. Western blot analysis of DDX11 expression in HeLa (A) and F9 (B) whole cell lysates.



DDX11 (F-2): sc-271700. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

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.

PROTOCOLS

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