# SANTA CRUZ BIOTECHNOLOGY, INC.

# DDX31 (D-24): sc-101933



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. DDX31 (DEAD-box protein 31), also known as Helicain, is an 851 amino acid protein that contains one helicase ATP-binding domain and one helicase C-terminal domain. Localized to the nucleus, DDX31 is thought to function as an ATP-dependent RNA helicase that is involved in pre-mRNA splicing events, possibly playing a role in cell cycle progression. Four isoforms of DDX31 exist due to alternative splicing events.

## REFERENCES

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- Caruthers, J.M. and McKay, D.B. 2002. Helicase structure and mechanism. Curr. Opin. Struct. Biol. 12: 123-133.
- Scherl, A., Couté, Y., Déon, C., Callé, A., Kindbeiter, K., Sanchez, J.C., Greco, A., Hochstrasser, D. and Diaz, J.J. 2002. Functional proteomic analysis of human nucleolus. Mol. Biol. Cell 13: 4100-4109.
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## CHROMOSOMAL LOCATION

Genetic locus: DDX31 (human) mapping to 9q34.13.

## SOURCE

DDX31 (D-24) is a purified rabbit polyclonal antibody raised against DDX31 of human origin.

#### PRODUCT

Each vial contains 100  $\mu g$  lgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

# **STORAGE**

Store at 4° C, \*\*D0 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.

### **APPLICATIONS**

DDX31 (D-24) is recommended for detection of DDX31 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DDX31 siRNA (h): sc-92524, DDX31 shRNA Plasmid (h): sc-92524-SH and DDX31 shRNA (h) Lentiviral Particles: sc-92524-V.

Molecular Weight of DDX31 predicted isoforms: 94/85/64/35 kDa.

Molecular Weight of DDX31 observed isoforms: 30/58 kDa.

Positive Controls: 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).

#### DATA



DDX31 (D-24): sc-101933. Western blot analysis of DDX31 expression in Jurkat whole cell lysate.

# **RESEARCH USE**

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