### SANTA CRUZ BIOTECHNOLOGY, INC.

# DDX16 (K-19): sc-101932



#### 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. DDX16 (DEAD-box protein 16), also known as DHX16, DBP2, PRP8 or PRO2014, is a 1,041 amino acid protein that contains one helicase ATP-binding domain and one helicase C-terminal domain. One of several members of the DEAD-box protein family, DDX16 localizes to the nucleus and is thought to function as an RNA helicase that is involved in pre-mRNA splicing events, playing an important role in cell cycle progression. The gene encoding DDX16 is located on a region of chromosome 6 that is associated with a variety of diseases, including malignancies and genetic mutations, suggesting a possible role for DDX16 in the pathogenesis of certain disorders.

#### REFERENCES

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- 3. Suk, K., et al. 2000. Identification of a novel human member of the DEAD box protein family. Biochim. Biophys. Acta 1501: 63-69.
- 4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603405. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Shigenari, A., et al. 2004. Nucleotide sequencing analysis of the swine 433-kb genomic segment located between the non-classical and classical SLA class I gene clusters. Immunogenetics 55: 695-705.
- 6. Bellare, P., et al. 2006. Ubiquitin binding by a variant Jab1/MPN domain in the essential pre-mRNA splicing factor Prp8p. RNA 12: 292-302.
- 7. Turner, I.A., et al. 2006. Dissection of Prp8 protein defines multiple interactions with crucial RNA sequences in the catalytic core of the spliceosome. RNA 12: 375-386.

#### CHROMOSOMAL LOCATION

Genetic locus: DHX16 (human) mapping to 6p21.33.

#### SOURCE

DDX16 (K-19) is a purified rabbit polyclonal antibody raised against DDX16 of human origin.

#### PRODUCT

Each vial contains 50  $\mu g$  lgG in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

#### APPLICATIONS

DDX16 (K-19) is recommended for detection of DDX16 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 DDX16 siRNA (h): sc-95619, DDX16 shRNA Plasmid (h): sc-95619-SH and DDX16 shRNA (h) Lentiviral Particles: sc-95619-V.

Molecular Weight of DDX16: 120 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, MIA PaCa-2 cell lysate: sc-2285 or U-87 MG cell lysate: sc-2411.

#### **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<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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





DDX16 (K-19): sc-101932. Western blot analysis of DDX16 expression in U-87 MG ( $\pmb{A}$ ), SJRH30 ( $\pmb{B}$ ) and MIA PaCa-2 ( $\pmb{C}$ ) whole cell lysates.

## DDX16 (K-19): sc-101932. Western blot analysis of DDX16 expression in Jurkat whole cell lysate.

#### 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.

