DDX41 (G-14): sc-104867



The Power to Question

BACKGROUND

DDX41 (probable ATP-dependent RNA helicase DDX41, DEAD box protein abstrakt homolog) is a 622 amino acid protein encoded by the human gene DDX41. DDX41 belongs to the DEAD box helicase family (DDX41 subfamily) and contains one CCHC-type zinc finger, one helicase ATP-binding domain and one helicase C-terminal domain. DDX41 is required during post-transcriptional gene expression and is thought to be involved in pre-mRNA splicing. DDX41 is believed to be a probable ATP-dependent RNA helicase. RNA helicases are highly conserved enzymes that utilize the energy derived from NTP hydrolysis to modulate the structure of RNA. RNA helicases participate in all biological processes that involve RNA, including transcription, splicing and translation.

REFERENCES

- Irion, U. and Leptin, M. 2000. Developmental and cell biological functions of the *Drosophila* DEAD-box protein abstrakt. Curr. Biol. 9: 1373-1381.
- Abdul-Ghani, M., Hartman, K.L. and Ngsee, J.K. 2005. Abstrakt interacts with and regulates the expression of sorting nexin-2. J. Cell. Physiol. 204: 210-218.
- Sekito, A., Taira, T., Niki, T., Iguchi-Ariga, S.M. and Ariga, H. 2005. Stimulation of transforming activity of DJ-1 by abstrakt, a DJ-1-binding protein. Int. J. Oncol. 26: 685-689.
- Abdelhaleem, M. 2005. RNA helicases: regulators of differentiation. Clin. Biochem. 38: 499-503.
- Nousiainen, M., Sillje, H.H., Sauer, G., Nigg, E.A. and Körner, R. 2006. Phosphoproteome analysis of the human mitotic spindle. Proc. Natl. Acad. Sci. USA 103: 5391-5396.
- Savitsky, M., Kwon, D., Georgiev, P., Kalmykova, A. and Gvozdev, V. 2006.
 Telomere elongation is under the control of the RNAi-based mechanism in the *Drosophila* germline. Genes Dev. 20: 345-354.
- 7. Kitamura, H., Matsuzaki, Y., Kimura, K., Nakano, H., Imaizumi, T., Satoh, K. and Hanada, K. 2007. Cytokine modulation of retinoic acid-inducible gene-I (RIG-I) expression in human epidermal keratinocytes. J. Dermatol. Sci. 45: 127-134.

CHROMOSOMAL LOCATION

Genetic locus: DDX41 (human) mapping to 5q35.3; Ddx41 (mouse) mapping to 13 B1.

SOURCE

DDX41 (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of DDX41 of human origin.

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.

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-104867 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DDX41 (G-14) is recommended for detection of DDX41 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).

Suitable for use as control antibody for DDX41 siRNA (h): sc-91765, DDX41 siRNA (m): sc-142938, DDX41 shRNA Plasmid (h): sc-91765-SH, DDX41 shRNA Plasmid (m): sc-142938-SH, DDX41 shRNA (h) Lentiviral Particles: sc-91765-V and DDX41 shRNA (m) Lentiviral Particles: sc-142938-V.

Molecular Weight of DDX41: 70 kDa.

Positive Controls: DDX41 (h): 293 Lysate: sc-113244 or Jurkat whole cell lysate: sc-2204.

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.

PROTOCOLS

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



Try **DDX41 (C-3):** sc-166225 or **DDX41 (E-8):** sc-166255, our highly recommended monoclonal aternatives to DDX41 (G-14).

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com