SANTA CRUZ BIOTECHNOLOGY, INC.

DDX34 (E-3): sc-514665

SANTA CRUZ BIOTECHNOLOGY

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. DDX34 (DEAD (Asp-Glu-Ala-His) box polypeptide 34), also known as HRH1 or DHX34, is a 576 amino acid ATP-binding RNA helicase containing a helicase ATP-binding domain and a helicase C-terminal domain. The gene encoding DDX34 maps to human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes.

REFERENCES

1. Schmid, S.R., et al. 1992. D-E-A-D protein family of putative RNA helicases. Mol. Microbiol. 6: 283-291.
2. Will, C.L., et al. 2002. Characterization of novel SF3b and 17S U2 snRNP proteins, including a human Prp5p homologue and an SF3b DEAD-box protein. EMBO J. 21: 4978-4988.
3. Abdelhaleem, M., et al. 2003. The human DDX and DHX gene families of putative RNA helicases. Genomics 81: 618-622.
4. Xu, Y.Z., et al. 2004. Prp5 bridges U1 and U2 snRNPs and enables stable U2 snRNP association with intron RNA. EMBO J. 23: 376-385.
5. Cordin, O., et al. 2004. The newly discovered Q motif of DEAD-box RNA helicases regulates RNA-binding and helicase activity. EMBO J. 23: 2478-2487.
6. Andersen, J.S., et al. 2005. Nucleolar proteome dynamics. Nature 433: 77-83.

CHROMOSOMAL LOCATION

Genetic locus: DHX34 (human) mapping to 19q13.32.

SOURCE

DDX34 (E-3) is a mouse monoclonal antibody raised against amino acids 971-1143 mapping at the C-terminus of DDX34 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DDX34 (E-3) is available conjugated to agarose (sc-514665 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514665 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514665 PE), fluorescein (sc-514665 FITC), Alexa Fluor® 488 (sc-514665 AF488), Alexa Fluor® 546 (sc-514665 AF546), Alexa Fluor® 594 (sc-514665 AF594) or Alexa Fluor® 647 (sc-514665 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514665 AF680) or Alexa Fluor® 790 (sc-514665 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

DDX34 (E-3) is recommended for detection of DDX34 of 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 DDX34 siRNA (h): sc-97740, DDX34 shRNA Plasmid (h): sc-97740-SH and DDX34 shRNA (h) Lentiviral Particles: sc-97740-V.

Molecular Weight (predicted) of DDX34: 128 kDa.

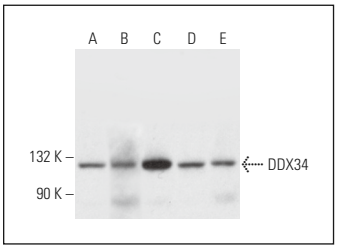
Molecular Weight (observed) of DDX34: 43/132 kDa.

Positive Controls: T24 cell lysate: sc-2292, SK-MEL-28 cell lysate: sc-2236 or ARPE-19 whole cell lysate: sc-364357.

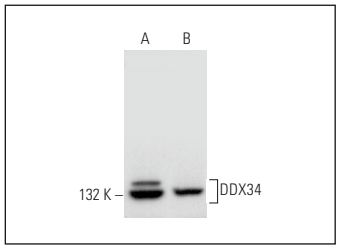
RECOMMENDED SUPPORT REAGENTS

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



DDX34 (E-3): sc-514665. Western blot analysis of DDX34 expression in T24 (**A**), ARPE-19 (**B**), SK-MEL-28 (**C**), Hep G2 (**D**) and HeLa (**E**) whole cell lysates.



DDX34 (E-3): sc-514665. Western blot analysis of DDX34 expression in K-562 (**A**) and Jurkat (**B**) whole cell lysates.

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.