DDX24 (C-12): sc-104863



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. DDX24 (DEAD (Asp-Glu-Ala-Asp) box polypeptide 24) is an 859 amino acid protein that contains one helicase C-terminal domain and one helicase ATP-binding domain. Expressed ubiquitously with highest levels in brain and heart, DDX24 functions as an ATP-dependent RNA helicase that is subject to DNA damage-dependent phosphorylation. Human DDX24 shares 79% sequence similarity with its mouse counterpart, suggesting a conserved role between species.

REFERENCES

- Schmid, S.R. and Linder, P. 1992. DEAD protein family of putative RNA helicases. Mol. Microbiol. 6: 283-291.
- 2. Zhao, Y., Yu, L., Fu, Q., Chen, W., Jiang, J., Gao, J. and Zhao, S. 2000. Cloning and characterization of human DDX24 and mouse Ddx24, two novel putative DEAD box proteins, and mapping DDX24 to human chromosome 14q32. Genomics 67: 351-355.
- 3. Abdelhaleem, M., Maltais, L. and Wain, H. 2003. The human DDX and DHX gene families of putative RNA helicases. Genomics 81: 618-622.
- Cordin, O., Tanner, N.K., Doère, M., Linder, P. and Banroques, J. 2004.
 The newly discovered Q motif of DEAD-box RNA helicases regulates RNA-binding and helicase activity. EMBO J. 23: 2478-2487.
- Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 606181. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Linder, P. 2006. Dead-box proteins: a family affair-active and passive players in RNP-remodeling. Nucleic Acids Res. 34: 4168-4180.
- 7. Ma, J., Rong, L., Zhou, Y., Roy, B.B., Lu, J., Abrahamyan, L., Mouland, A.J., Pan, Q. and Liang, C. 2008. The requirement of the DEAD-box protein DDX24 for the packaging of human immunodeficiency virus type 1 RNA. Virology 375: 253-264.

CHROMOSOMAL LOCATION

Genetic locus: DDX24 (human) mapping to 14g32.12.

SOURCE

DDX24 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of DDX24 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-104863 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DDX24 (C-12) is recommended for detection of DDX24 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with other DDX family members.

DDX24 (C-12) is also recommended for detection of DDX24 in additional species, including canine.

Suitable for use as control antibody for DDX24 siRNA (h): sc-92079, DDX24 shRNA Plasmid (h): sc-92079-SH and DDX24 shRNA (h) Lentiviral Particles: sc-92079-V.

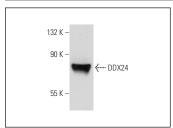
Molecular Weight of DDX24: 96 kDa.

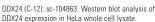
Positive Controls: HeLa whole cell lysate: sc-2200.

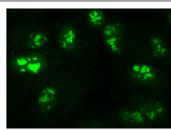
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA







DDX24 (C-12): sc-104863. Immunofluorescence staining of formalin-fixed HepG2 cells showing nucleolar 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 or our catalog for detailed protocols and support products.