

DDX1 (22): sc-135878

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 such as translation initiation, nuclear and mitochondrial splicing, and ribosome and spliceosome assembly. Based on their distribution patterns, some members of this family may be involved in embryogenesis, spermatogenesis and cellular growth and division. DDX1 mRNA has a widespread distribution in human fetal tissue, but is not uniformly expressed in all tissues. Chicken DDX1, which shares 93% identity with human DDX1, shows highest levels of expression during the early stages of development. Tissue maturation typically correlates with a decrease in DDX1 expression, although DDX1 levels remain elevated in late embryonic retina and brain.

REFERENCES

1. Bleoo, S., et al. 2001. Association of human DEAD box protein DDX1 with a cleavage stimulation factor involved in 3'-end processing of pre-mRNA. *Mol. Biol. Cell* 12: 3046-3059.
2. Chen, H.C., et al. 2002. An RNA helicase, ribonucleoprotein K. *J. Biol. Chem.* 277: 40403-40409.
3. De Preter, K., et al. 2002. Quantification of MYCN, DDX1 and NAG gene copy number in neuroblastoma using a real-time quantitative PCR assay. *Mod. Pathol.* 15: 159-166.
4. Godbout, R., et al. 2002. Cloning and expression analysis of the chicken DEAD box gene DDX1. *Biochim. Biophys. Acta* 1574: 63-71.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 601257. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Krishnan, V. and Zeichner, S.L. 2004. Alterations in the expression of DEAD-box and other RNA binding proteins during HIV-1 replication. *Retrovirology* 1: 42.
7. De Preter, K., et al. 2005. No evidence for correlation of DDX1 gene amplification with improved survival probability in patients with MYCN-amplified neuroblastomas. *J. Clin. Oncol.* 23: 3167-3168.

CHROMOSOMAL LOCATION

Genetic locus: DDX1 (human) mapping to 2p24.3.

SOURCE

DDX1 (22) is a mouse monoclonal antibody raised against amino acids 351-544 of DDX1 of human origin.

PRODUCT

Each vial contains 50 µg IgG₁ in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, 20% glycerol and 0.04% stabilizer protein.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

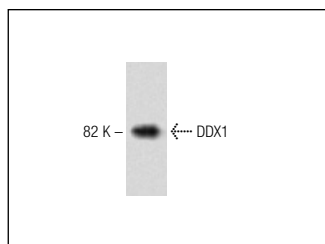
DDX1 (22) is recommended for detection of DDX1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for DDX1 siRNA (h): sc-60517, DDX1 shRNA Plasmid (h): sc-60517-SH and DDX1 shRNA (h) Lentiviral Particles: sc-60517-V.

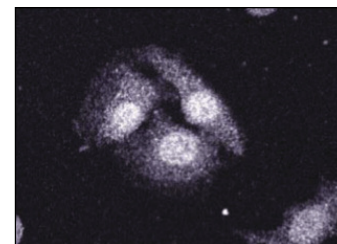
Molecular Weight of DDX1: 82 kDa.

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

DATA



DDX1 (22): sc-135878. Western blot analysis of DDX1 expression in HeLa whole cell lysate.



DDX1 (22): sc-135878. Immunofluorescence staining of HeLa cells showing nuclear and cytoplasmic localization.

RESEARCH USE

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

PROTOCOLS

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